INTERNATIONAL SEMINAR 2016
YOGYAKARTA STATE UNIVERSITY
InCoTEPD
Institute of Educational Development and Quality Assurance

# PROCEEDING

## International Conference on Teacher Education and Profesional Development (InCoTEPD)

Yogyakarta State University, Indonesia
17 - 18 May 2016

**PROCEEDING**
International Conference on Teacher Education And Professional Development (INCoTEPD) 2016

**PUBLISHING INSTITUTE**
Institute of Development and Quality Assurance Educational
Yogyakarta State University

**DIRECTOR OF PUBLICATION**
Prof. Dr. Anik Ghufron, M.Pd.



**ADDRESS**
LPPMP, Yogyakarta State University
ISBN: 978-602-74576-0-7


All artices in the proceeding of international conference on teacher ducation and professional development (incotepd) 2016 are not the official opinions and standings of editors. Contents and consequences resulted from the articles are sole responsibilities of individual writers.

# PROCEDDING

International Conference
on Teacher Education And Professional
Development (INCoTEPD) 2016

**EASTPARC HOTEL YOGYAKARTA**
**17 – 19 MAY 2016**

ISBN 978-602-74576-0-7

## FOREWORD BY RECTOR OF YOGYAKARTA STATE UNIVERSITY

Assalamu'alaikum warrahmatullah wabarakatuh.
May peace and God's blessings be upon you all.

First of all, let me express my gratitude for the successful of organizing profound speakers and participants to attend the International Conference on Teacher Education and Professional Development held by the Institute of Educational Development and Quality Assurance, Yogyakarta State University, for the first time. On behalf of the university and the committee, let me extend my honor and great appreciation to the keynote speaker, the invited speakers, parallel session speakers and all participants who have travelled hundreds or even thousands of miles to come to Yogyakarta to attend this conference. It is my strong belief that a safe journey has been due to the blessings granted by God the Almighty and the Most Merciful to Whom we without any further due have to express our gratitude and praise.

It is indeed a privilege for Yogyakarta State University to have the opportunity to organise this very important conference in which educational researchers and practitioners on teacher training programs get together to share excellent ideas, recent experiences, expectations, and empirical research findings. The main theme of the conference is "In search of effective teacher education and professional development: Learning from research and best practices around the globe". This conference is also one of the activities in the agenda of Yogyakarta State University to celebrate its 52$^{nd}$ anniversary.

The current advancement of the education in Indonesia has been pursued in the further development of the teacher education as it is provided by teacher education institutions across the country. The development takes concerns on two prominent areas, (i) teacher education programs namely pre-service training; and (ii) teacher professional development designed for current teachers in service. The conference addresses these two areas in related to philosophical basis, purposes, programs and policies on teacher education and professional development. The first area may include content materials (capacities, knowledge, beliefs and skills) should be acquired and developed by teachers; recruitment and selection (and retention) for teachers; qualifications for teacher educators and the institutions providing the programs and licenses to teach. While the second takes into account various in-service programs to maintain and advance the qualities of current teachers through periodical assessment and evaluation, trainings/courses and involvement in professional forums to share knowledge, experiences and skills between teachers.

Efforts to improve the quality of teacher education and professional development for all subjects must be continuously supported to produce new innovations, high-quality instructions and sustainable program. Therefore, this conference is specifically aimed for:

1. Identifying principles of effective teacher education (pre-service training) based on current research findings and best practices in different parts of the world.
2. Identifying principles of effective continuous teacher professional development based on current research findings and best practices in different parts of the world.

3. Developing effective models of teacher education based on current principles of effective teacher education.
4. Developing models of in-service training based on current principles of effective continuous teacher professional development.

It is expected that this conference provides teachers/lecturers, education practitioners, college students, and policy makers the opportunity to share their knowledge, experiences, and research findings relevant to develop the educational practices focusing on the process and product. Eventually, this conference is aimed to facilitate academics, researchers and teachers to yield some recommendations on the importance of education and development of teacher education programs based on empirical evidence which brings the benefits of the prosperity of all.

This international conference will not be what it is without the cooperation and support rendered by the whole committee whose names I will impossibly mention one by one. Therefore, I would like to take the opportunity to extend my highest appreciation and sincerest gratitude to especially the the organizing committee for their commitment and hard work. Only with their support will this international conference certainly reach its declared objectives successfully. Yogyakarta State University has done its best to make this conference a big success, however, should you find any shortcomings and inconveniences, please accept my apologies.

Finally, we hope this conference brings practical recommendations for the university and also for relevant educational institutes. We also wish all participants great success and this international conference will bring us fruitful benefits in education. Thank you very much.

Wassalamu'alaikum warahmatullah wabarakatuh.
May peace and God's blessings be upon you all.

Yogyakarta, 17 May 2016
Rector,

Prof. Dr. Rochmat Wahab, M.Pd., M.A.

## FOREWORD BY THE HEAD COMMITTEE

AssalamuʻalaikumwaRahmatullahiwaBarakatuh
May God bless upon us

This conference entitled International Conference on Teacher Education and Professional Development is organized by the Institute of Educational Development and Quality Assurance, Yogyakarta State University.This is the first time that our university is proudly holding an international conference specific on pre-service and in-service teacher development. The main theme of the conference is "in search of effective teacher education and professional development: Learning from research and best practices around the globe". This conference is also dedicated to the 52$^{nd}$anniversary of Yogyakarta State University.

This conference facilitates academics, researchers and teachers from the field of teacher education, policy in education, standards and management, educational science and continuous professional development. Innovative issues, thought, empirical findings in these fields are emerging from time to time. Hence, it is necessary for us tocome together and discuss these exciting recent developments of teacher education and professional development through this conference. Furthermore, it is expected that this conference would produce some recommendations on how to improve pre-service and in-service training programs.
On behalf of the organizing committee of this conference, I would like to express my highest appreciation and gratitude to the keynote speaker from the Ministry of Research and Higher Education of the Republic of Indonesia who will deliver the recent teacher education policy in Indonesia; and for the invited speakers from Australia, Finland, the USA, Hong Kong and Indonesia. They and the title of the talk are:

1. Prof. Lesley Harbon, Ph.D; The University of Technology Sydney; Teacher professional development in Australia and Asia: A comparative study.
2. Prof. Dr. Ng Shun Wing; The Hong Kong Institute of Education; Model of teacher education in Hong Kong.
3. Heidi Layne, Ph.D; Teacher education and teacher's professional development in Finland: Myths and realities.
4. JeniseRowekamp, M.A.; Successes and challenges in the development of excellent teachers in the United States.
5. Prof. Dr. SunaryoKartadinata; Education University of Indonesia; Model of teacher education and in-service professional development in Indonesia.
6. Prof. SuwarsihMadya, Ph.D.; Yogyakarta State University, Indonesia; Teacher initiative and continuous professional development in Indonesia.

Furthermore, I would also like to express my appreciation to about ## regular presenters, ## invited participants and 20 regular participants, who have travelled from many places to Yogyakarta in order to attend this conference. The regular presenters are allocated 30 minutes to present and discuss their paper, in the parallel session. From the selection and review stages, half of the regular presentation takes theme on the in-service teacher training program and the other half is on the pre-service teacher training program. Great appreciation goes to the presenters and reviewer teams in preparing the papers.

We do hope this conference will achieve its goals in emerging innovative, effective and efficient teacher programs towards a better education results. We also hope that this conference willbring fruitful results and promote networking as well as future collaborations for all participants to promote successful education in the near future.

Finally, highest appreciation goes to the organizing committee who have been working very hard since about a year ago to ensure the success of the conference. We hope all participants take the most of the conference, have a very good moment during the conference and enjoy the city of Yogyakarta, Indonesia. Thank you very much.

WassalamuʼalaikumwaRahmatullahiwaBarakatuh.

May God bless upon us

Yogyakarta, 17 May 2016

Chairman of InCoTEPD 2016

Drs. Suyud, M.Pd

## Table of Contents

**Foreword of the Rector** ..... i

**Foreword of The Head Committee** ..... **ii**

**Table of Contents** ..... **iii**

**Keynote Speakers**

Teacher education policy in Indonesia"
***M. Nasir*** ..... *

**Invited Speakers**

Model of Teacher Education And In-Service Professional Development In Indonesia
***Sunaryo Kartadinata*** ..... 1

Teacher Education and Teacher's Professional Development in Finland: Myths and Realities
***Heidi J. Layne.*** ..... 8

Model of teacher education and in-service in Hong Kong
***Ng Shun Wing*** ..... 13

Teacher Professional Development in Australia and Asia: A Comparative Study
***Lesley Harbon*** ..... 22

Successes and Challenges in the Development of Excellent Teachers in the United States
***Jenise Rowekamp*** ..... *

Teacher initiative and continuous professional development in Indonesia
***Suwarsih Madya*** ..... *

**Paralel Session Speakers**

**I. Sub Themes:**

**Teacher Education – Pre-Service Training**

Coursera for English Students Teachers: A Foundation for Skill and Professional Development

***Husni Mubarok*** ..... 28

The Use Of Digital Video To Assess Students' Speaking Skill
***Noni Agustina*** ..... 36

Islamic Education Teachers Curriculum: Comparative Study Between IAIN Surakarta And UPI Bandung
***Muhammad Munadi, Noor Alwiyah*** ..... 42

Teachers' Beliefs And Mathematics Teaching Practices Regarding Successfull Implementation Of Curriculum
***Pika Merliza*** ..... 49

Dealing with Differentl Learning Behaviours: The Scope of Nuero Linguistic Programming in the Classroom
***Abdul Rasheed P*** ..... 57

The Use Of Think Pair Share And Two Stay- Two Stray Techniques In Improving Students' Speaking Skill
***Aprilia Riyana Putri*** ..... 63

Fostering Fresh Graduate Students' Confidence in Speaking English (An Action Research to Students of Muria Kudus University, Central Java, Indonesia)
***Farid Noor Romadlon*** ..... 67

Learning Application Of Realistic Mathematics Education Based On Iceberg Phenomenon
***Dyah Purboningsih, Venti Indiani*** ..... 74

An Assessment Of Historical Thinking Skills Using The Rasch Model
***Ofianto*** ..... 79

The Effectiveness of Semantic Mapping to Teach Speaking Skill of Second Graders of SMP Muhammadiyah 2 Kalasan in the Academic Year of 2013/2014
***Vivi Nurvitasari*** ..... 85

Social Web Environment: Potentials For Integrated Teaching And Learning Activities
***Nuur Wachid Abdulmajid*** ..... 89

Context Based Learning (CBL) in Islamic Education The actualization Learning Methods of PAI in Higher Education
***Lukis Alam*** ..... 95

Completion Analytical Theory of Langevin Runs Using Maclaurin Series To Improve Understanding The Concept of Students
***Andika Kusuma Wijaya*** ..... 102

An Analysis of The Student's Ability Of Mathematical Critical Thinking With Visual Learning Styles In Learning Cycle 7E
***Rosmaiyadi*** ..... 106

The Development of Set Activity Based Assessment (ABA) to Measure Student Science Process Skill at Physics II
***Emi Sulistri*** ..... 113

An Analysis of Lecturer Talk And Student Talk In Teaching English For Young Learners (EYL)
***Andi Idayani, Sri Yuliani*** ..... 120

The Effectiveness of Using Indonesian Folktales to Improve
***Lia Agustina*** ..... 124

An Analysis Of Competency In Professionalisme Among Teachers Senior High Schools In Pekanbaru
***Nurmalinda, Marhamah*** ..... 129

Professional Competence Development Achievements in The Field Of Science Primary School Through Problem Based Integrated Science Leraning Model
***Fitria Yanti*** ..... 140

Improving The Students' Reading Comprehension by Using Authentic Materials at Vocational College
***Cholimatus Zuhro*** ..... 147

The Implementation of Collaborative Learning Model to Improve Instructional Quality in Educational Technology Departement
***Sisca Rahmadonna*** ..... 154

Strengthening on Teacher Education: Challenges in Creating A Stronger Research Base
***Poerwanti Hadi Pratiwi*** ..... 158

Redesign Teacher Education Program to Support Inclusive Education
***Pujaningsih*** ..... 165

Learning Indonesian for Foreigner Based on Indonesian Culture
***Imam Suyitno*** ..... 179

English language teaching in ASEAN: an account of problems and prospects
***Herli Salim, Peter Waterworth, Greg Keaney, Wachyu Sundayana, Sudarsono*** ..... 186

Partial Credit Model (Pcm) For Item Response Theory: Improving Teacher's Competence in Language Learning Assessment
***Beniati Lestyarini*** ..... 200

**II. Sub Themes:**

**Teacher Professional Development – In-Service Training**

The Effect of The Mind Mapping Methods on Students Understanding of Three-Dimensional Geometric
***Satrianawati*** ..... 208

Identification of Teacher Competence in Managing the Teaching and Learning Process for Children with Special Need in Regular School
***Ichsan Anshory*** ..... 212

It Begins with Grammar: Teaching ESP with Communicative Languange Teaching
***Ummi Rasyidah*** ..... 217

What Students Love from their Teachers? Constructing Teachers who Live
***Adi Suryani*** ..... 221

Improving the quality of Office Administration Vocational Teachers through competency-based training in Indonesia
***Sutirman*** ..... 229

Teacher strategic approaches: handling class in various conditions
***Karjongko*** ..... 240

Murobby as A Teaching Values : Concepts and Implementation
***Istianah Abubakar*** ..... 245

Investigating English Teachers' Roles and Practices in SMPN 26 Malang: The Issue of Teachers' Teaching Act
***Raisha Nur Anggraini, Ardhi Eka Fadilah*** ..... 250

Continuous Professional Development for Primary Teacher
***Nurkolis*** ..... 260

Teachers and ICT: Towards an effective ICT training for teachers
***Iin Karmila Yusri*** ..... 268

Teachers' Professional Development and Students' Achievement: Does Teachers' Learning in their Community of Practice Really Contribute to Their Students' Academic Development or Just for Teachers' Own Selves?
***Abdul Rahman*** ..... 273

Teaching English Using Insertion of Humor
***Joko Ariyanto*** ..... 281

Encouraging The Innovation-Based Improvement Of Teaching's
***Jemie Muliadi*** ..... 288

Managing Indonesian teachers professional development to support a curriculum implementation
***Hazairin Eko Prasetyo*** ..... 303

What Teachers Learn from Internship Program in Adelaide South Australia? A Case Study of High School Teacher in West Java
***Nurul Hidayah*** ..... 317

Enhancing Knowledge and Skills Teacher Muhammadiyah 4 Primary School of Batu in Managing ABK Learning by Lesson Study
***Siti Fatimah Soenaryo*** ..... 322

Development Training Model for Primary School Teacher to Implementation of Curriculum 2013
***Endang Poerwanti*** ..... 329

Guided Training Model and Teacher Competency in Developing Evaluation Strategis: ECE Curiculum of 2013 Frame work
***Tuti Istianti, Margaretha Sri Yuliariatiningsih, Novi Yanthi*** ..... 336

Reflection Of Professional Education Of Productive Vocational High School Teachers
***Sunaryo Soenarto*** ..... 342

Correlational Study Among Principal's Leadership and Communication Capability With Teachers' Performance at SMAN I Gorontalo City
***Abdul Rahmat, Syaeful Kadir, Mira Mirnawati*** ..... 348

Elemtary School Teachers Competences of The 21st Century And Beyond in The Fast Developing World
***Prof. Dr. H Marzuki, MA*** ..... 354

Utilization Of E-Learning In The Class of Economics Teaching and Learning Strategy For Students Of The Economics Education Study Program In 2015
***Kiromim Baroroh, Barkah Lestari, Suwarno*** ..... 360

Implementing Arts Lesson In Senior High School Using 2013 Curriculum
**Wida Rahayuningtyas** ..... 363

Optimization Of Primary School's Teachers In Implementing The Thematic Learning Through Dance Movements
**Cicilia Ika Rahayu Nita** ..... 370

The Readiness Of Pre-Service Teacher To Be A Professional Mathematics Teacher
**Saifan Sidiq Abdullah, Jailani** ..... 375

The Feasibility And Effectiveness Of Continuing Professional Development of Vocational High School Teachers Using E-Learning Portal-Based Interactive Multimedia
***Soeharto, Sukir, Ariadie Chandra Nugraha*** ..... 378

The Development Of The Curriculum Of Art And Culture Education In The Study Program Of Elementary School Teacher Education
***Zulfi Hendri*** ..... 387

Strengthening Collaborative Classroom Action Research As a mean of Continuous Teacher Professional Development
***Endah Retnowati*** ..... 394

Preschool Teachers' Formal and Informal Learning: Frequency, Usefulness, and Relationship with Job Satisfaction
***Alfredo Bautista*** ..... 401

Singapore Preschool Teachers' Professional Development Needs and Priorities
***Siew Chin Ng*** ..... 407

Buzz Group Technique: An Alternative Way to Improve Students' Speaking Skill
***Khulaifiyah, Muhammad Ilyas*** ..... 415

Case Study On Teachers' Perceptions And Preparedness Regarding Professional Development And Student Aptitude Assessment In A Private School In Central Jakarta
***Rebekah Nivala*** ..... 423

# A MODEL OF TEACHER EDUCATION AND IN-SERVICE PROFESSIONAL DEVELOPMENT IN INDONESIA

**Sunaryo Kartadinata**

## Introduction

Paradigm shift of teacher education triggered by the issuance of Law No. 14/2005 on Teachers and Lecturers, a variety of teacher education institutions, programs, and resources in Indonesia has brought about efforts to standardize the teacher education. Approximately 415 teacher education institutions (LPTK) with different institutional formats and standards have led to uncontrollable quality of teacher education. The Law No. 14/2005 has generated a long discourse as there is a gap between legal and academically philosophical perspectives. Both perspectives have synergized, and the new paradigm confirms that Indonesia's teacher education should be two-stage education, educational academic and teacher professional education. Teacher education standardization in the context of diversity should focus on institutional, programming, organizational, recruitment, and admission systems. Considering the LPTK uniqueness, the external quality assurance should be made by a particular accreditor.

The program standardization is based on the principle of structural and conceptual coherence, early exposing the prospective teachers to the professional field as an integrated part of learning process, applying and strengthening educational academic conception of professional education, and competence examination in the end of teacher professional education program. Learning outcomes of teacher education are set and based on Indonesia National Qualification Framework (KKNI). A license and credential of professional teacher is granted after passing a competence test and constitutes a basis for a nationally integrated teacher recruitment. Boarding teacher education program is a legal order, and it must be run and a part of teacher education processes. LPTKs are also required to organize laboratory schools to facilitate teacher educators, facilitators, and student teachers during teacher education, in addition to serving a function of educational development and innovation center.

Institutional standardization emphasizes LPTK capacity guarantee to maintain and develop educational science and teacher education, and provide education teacher from early childhood through secondary education. This guarantee is granted in the form of external recognition by a specialized accrediting agency both by government and society. Student recruitment and selection is held specifically and put the personal factors, skill and readiness in addition to the academic intellectuals as requirements of teacher education admission. Teaching profession as a life cycle starts from recruitment and selection of students to their retirement. This cycle presents a meaning that preparation of teachers by LPTK and teacher's field development is a sustainable process and measure. In-service teacher development is a measure that should be taken sustainably.

The overall teacher education standards for the preparation of prospective teachers by LPTKs and their in-service development should be formulated in policies, regulations, and systems by the Ministry of Education along with the Professional Association. The standardization process is in progress to realize a regulation as the legal shield of teacher education and in-service teacher training in Indonesia that is able to accommodate diversity.

## Conceptual framework

A gap between the legal perspective which emerged from the understanding and interpretation of the Law, and academically philosophical one has encouraged a lengthy discussion about teacher education in Indonesia. This lengthy has reached a conceptual framework that teacher education in Indonesia should go through two stages: pedagogical academic education that leads to the undergraduate education and teacher professional education. This framework has become one of the formulations resulting in the recommendations of the National Convention of Indonesian Education (KONASPI) VI in Bali in 2008. The KONASPI VI recommendations affirm that: the provision of quality teacher education should be based on quality standards of competence and of teacher education. The integrity of these competencies is acquired through academic and professional education. "(Recommendation 1, KONASPI VI: 2008).

Four teacher competences (pedagogical, professional, personal, social) stipulated in the Law No. 14/2005 interpreted as integrated of competences to be achieved through pedagogical academic education. This thorough interpretation is important as those four competences are conceptually fragmented. Professional competence that is defined as the ability to master the scientific field that is taught and formulated independently of pedagogical competence is a proof of competence fragmentation. For teachers, professional competence is a combination of pedagogical ability and mastery of teaching materials that is realized in real teaching performance in fostering instructional atmosphere and processes. Pedagogical academic education integrates pedagogical competence and mastery of the instructional substances or scientific contents that will be a knowledge basis for instructional activities.

Based on the above mentioned ideas, the professional competence is not limited to the


ISBN: 978-602-74576-0-7

mastery of the scientific substance of science, but includes an intact and capable performance that is developed through the supervised process of applying, sharpening and refining the academic competence in a real practice or authentic setting. Pedagogical academic competence becomes a prerequisite for entering the teacher professional education. The implication is that non- teacher education graduates who are interested in teaching profession should attend a special program to master pedagogical academic competence before the admission to teacher professional education. The International Conference on Teacher Education organized by Universitas Pendidikan Indonesia (UPI) in 2010 has brought about the UPI Academic Senate Decision No. 005 / Senate AKD / UPI-SK / X / 2010 on Redesigning Professional Education for Teacher. This design has received a national recognition from the Ministry of Education and Culture as a pre-service teacher education model that can be applied contextually in each LPTK in Indonesia. A continuous escort for the concept and design is carried out by LPTK members of the Indonesian Association of Teacher Education Institutions (ALPTKI) in collaboration with the Directorate General of Higher Education (DGHE).

**Program Standardization: Legal and Philosophical- Academic Synergy**

Basically, according to the Law No. 14/2005 command, the current teacher education programs in Indonesia applies a consecutive or layered model as prospective teachers both with and without teacher education background, must attend the teacher professional education program. An unusual thing does actually happen, as those with teacher education background also have to attend the professional education. To distinguish between the two groups, those with non-teacher education background are required to attend a matriculation or induction program before being admitted to the professional education.

The basic framework of program development is based on the principle of teacher education phasing that consists of pedagogical academic education and professional education as a whole. The pedagogical academic education is not a process void of field experiences. Therefore, the structural coherence principle (hierarchical linkages between one concept and the others in a program structure) and the conceptual coherence (congruence between concepts and field reality) built since the beginning of the program through early exposure approach (early exposure). Early exposure is the process of introducing student teachers to the world of school since the beginning of the semester, as an integrated part of classroom lectures.

There is a presidential order as embedded in Presidential Decree No. 08/2012 on the Indonesian's National Qualifications Framework (KKNI) for all Indonesian higher education institutions in terms of curriculum development. The KKNI describes a framework of competence and qualification levels to reconcile, equalize, and integrate the fields of education and job training and work experience in order to reward the work in accordance with the work structures in various sectors. As a profession, competence and qualification of teachers graduated from a professional education program is seventh level with the following learning outcome standards:

1. Ability to plan and manage resources under their responsibility, and comprehensively evaluate their work by utilizing science and technology to take strategic measures of organizational development.
2. Ability to solve problems in science, technology, or art in their field through a mono-disciplinary approach.
3. Ability to conduct research and make strategic decisions with full accountability and responsibility for all aspects which are under the responsibility of their expertise.

In the context of preserving the national identity, KKNI provide a direction that: In accordance with the national ideology and Indonesian culture, the implementation of national education and vocational training systems at every level of qualification includes processes that cultivate the following affective aspects:

1. Belief in One Supreme and Almighty God
2. Good morality, ethics, and personality in completing various tasks
3. Serving as a citizen with pride and love of the homeland and supporting world peace
4. Ability to work together and put forward a social sensitivity and concern towards society and the environment
5. Respect for cultural diversity, views, beliefs, and religions and opinions / original findings of others
6. Support for law enforcement and the spirit to withhold the interests of the nation and the wider community.

KKNI directive requirement and substance of pedagogical academic competences and professional education are synergized into the formulation of learning outcomes. KKNI incorporation into teacher (education) competences is not easy, since the teaching profession is unique and deals with the developing human beings.

Therefore, ALPTKI and DGHE agreed that: "Presidential Decree No. 8 of 2012 ...would be tailored to the unique characteristics of the teaching profession, namely (a) the subject of service is human; (b) unique developing individuals; (C) essentially they are not different from educators; (D) they are the subject of a service with various potentials; (E) professional decisions are made in a dynamic transactional situation. "


ISBN: 978-602-74576-0-7

The synergy of regulatory directives and philosophical-academic analysis of the teaching profession, as described, has established the basic framework for the development of teacher education programs in Indonesia.

LPTK curriculum development must consider philosophical, empirical and legal foundations, as well as academic studies, in addition to the historical course of LPTKs and their curriculum. National issues in education, among others in teacher education restructuring, should also be taken into account. Some teacher issues that can be considered in developing the LPTK curriculum, particularly in setting curriculum models, are as follows.

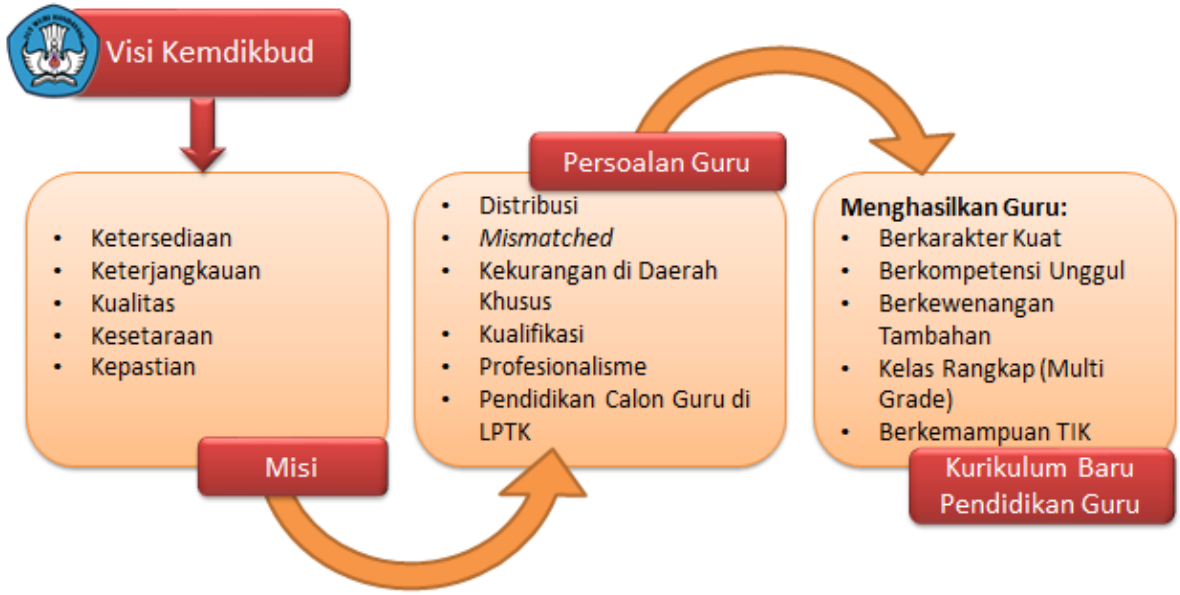



Figure 1. Teacher Issues and New Direction in LPTK Curriculum (2014)

In 2013 the Ministry of Education and Culture started to implement a new curriculum in all formal education units. LPTK curriculum was constructed to make the graduates able to develop the learners' potential as stipulated in the national education goals marked by the growth of attitudes, knowledge, and skills in an integrated manner in accordance with competencies of graduates at each level of education which is based on the new curriculum. The purpose, content, process and evaluation system of Curriculum 2013 should be referred in developing LPTK curriculum.

Some issues related to the implementation of the curriculum in 2013 which should to be seriously considered in LPTK curriculum development are:

a. The competences of LPTK graduates are formulated in integration with graduate competences of previous education levels.
b. Structuring of the LPTK curriculum contents should adapt to the learning needs at previous levels, especially the integration and reformulation of the basic education contents to ensure the learning efficiency and effectiveness, including the competitiveness.
c. Formulation of strategies to implement active learning or Active Learning in School (ALIS) and Active Learning in Higher Education (ALIHE) to foster creativity and high level thinking skills of learners.
d. Formulation of strategies to implement authentic assessment on the learning evaluation system ranging from primary education to LPTK level.

**Indonesian Teacher Profile: Implications on the Curriculum[1]**

Future teachers are those who inspire, excite and well educate learners, who should be prepared through a modern and quality LPTK educational system by implementing a curriculum that is adaptive to the demands of the future. For that purpose, LPTK curriculum should clearly be designed and implemented with the principle of

[1]Summarized from ALPTKI-Ditjen Dikti. Panduan Pengembangan Kurikulum LPTK, 2013


ISBN: 978-602-74576-0-7

active, innovative, creative, effective and fun learning.

Based on the formulation of the teachers competences as directed by the Act No. 14 of 2005, which includes pedagogical, personal, social, and professional, KKNI directives, and the concept of the integrated competences of teachers/educators as a profession, by referring to the universal prevalence of the profession, the integrity of teacher / educator competences include pedagogical academic competence and professional competence. Pedagogical academic competence is developed through academic education which leads to the granting of S-1 certificate (Pedagogy) and professional competence built through Professional Education (Teacher). In the perspective of competence integrity and competence of teachers in the directives of Law No. 14 of 2005, teacher as an educator should be able to show the performance of the professional advantages in the following areas.

***1. Pedagogical Advantage***

It is therefore necessary to acquire the content or field of study in accordance with the level of pedagogical needs (KKNI paragraph 2). The instructional management competence of a teachers is reflected by understanding the educational foundations and the development of learners, developing a curriculum or syllabus, designing instructional programs, implementing the educative and interactive learning processes, utilizing learning technology and developing instructional media, evaluating the learning outcomes, encouraging students to actualize their potential, and having lifelong learning ability (KKNI paragraph 3). In essence, the teacher must creatively implement active learning including producing learning tools, especially utilizing environmental sources including materials that are used in the school environment and the surrounding communities (KKNI paragraph 1). In addition to these advantages, another competence that is equally important is a flexible pedagogical competence, such as the ability to implement multi-grade teaching if at any time teachers are required to deal with such a situation.

***2. Personal Advantage***

Teachers are religious individuals, obey religious teachings and practice them seriously as presented in their daily attitude and behavior, so they can be a role model for students and the community in their environment (KKNI general description). Teachers with outstanding personal competence can show whole figures who reflect the characteristics of noble, wise and prudent, democratic, stable, dignified, stable, mature, honest, fair individuals who objectively evaluate own their performance, and develop themselves independently and sustainably.

Teachers possess the stable appearance, convincing in every step, gesture, and speech so as to give a good and deep impression to the students. In addition, teachers have good leadership and discipline, obey the rules, and stand firm, and those characteristics are useful to develop, guide and turn learners into intelligent, helpful, and responsible individuals.

Teachers have a strong character as a result of thinking, physical, and emotional processes. Their strong character is strongly reflected in the core values: honest, smart, tough, and caring.

a. Honest is straightforward, sincere, assertive, open minded, consistent between the words and behaviors; dare to tell the truth; trustworthy; fair.

b. Smart is to think carefully and precisely, act with the full calculation; high curiosity; communicate effectively and empathetically; mingle politely; uphold truth and virtue; love God and the environment

c. Tough is unyielding; reliably; strongly opinionated; discipline; stand firm; high perseverance.

d. Caring is to treat others with courtesy; polite behavior; tolerant of differences; do not like to hurt others; want to hear other people; want to share; do not put others down; do not take advantage of others; able to work; want to get involved in community activities; love humans and other creatures; loyal; love peace in dealing with problems.

***3. Social Advantage***

Social advantage is the embodiment of a graduate's professional accountability. The KKNI paragraph 4 of level 6 states that graduates of a program that are responsible for their own job and can be held accountable for the achievement of their organization's work.

As community members, teachers can communicate politely through oral, writing, or gesture, making functional use of information and communication technology. They can also interact effectively with students, fellow teachers, educators, leaders of educational units, the parents or guardians of students, and interact politely with the surrounding communities to heed the norms and value systems that apply, as well as applying the principles of true brotherhood and the spirit of togetherness.

Communication is an important element of the instructional processes. Teachers must have good communication skills and be able to convey clear messages to avoid miscommunication and misunderstanding. Good communication skills are characterized by a systematic and coherent


ISBN: 978-602-74576-0-7

messaging, using standard language, appropriate tone of voice, and proper body language.

***4. Disciplinary Advantage***

This competence is the teachers' ability to master the science, technology, and / or arts and culture to be taught (content knowledge), and implement them in the learning process, in accordance with paragraph 2 on the descriptors of KKNI levels 6 and 7. Teachers have at least (a) mastery of the subject matter broadly and deeply in accordance with the standards of the program content of education unit, subjects and / or groups of school subjects, and (b) the mastery of concepts and methods of scientific disciplines, technologies, or the relevant art, which is conceptually coherent with educational unit program, subjects and / or groups of subjects taught, so that they can formulate procedural problem solving in their own field. Mastery of the subject group/cluster is very important to equip prospective teachers with a more flexible authority.

In addition to the achievement of these advantages, LPTK curriculum is designed to produce graduates capable of meeting the educational needs at previous levels (vertically downwards), community education (lateral) and higher level education (vertically upwards).

**Basic Principles of Curriculum [2]**

Based on regulations and laws, the Teacher Professional Education Program is implemented in two stages, namely (1) the Teacher Academic Education (ending with conferring bachelor's degree), and (2) Teacher Professional Education (an education program following undergraduate teacher education, granting teacher certificate). The LPTK curriculum development should be carried out in line with the following principles of (1) the integrity of academic education and professional education, (2) the relationship of teaching and learning by implementing an early exposure system as a series of processes of shaping teacher identity, and (3) coherence between curriculum content and the classroom reality learning so that there is a linkage between the study program curriculum and classroom learning needs (university-school curriculum linkage).

The LPTK curriculum includes a layered model as stipulated by the laws and integrated model based on lessons learned by the LPTK for more than 55 years. The following is two models of the LPTK curriculum development, of which their potential implementation can be considered.

**Institutional Standardization and Quality Assurance [3]**

Untuk menjamin penyelenggaraan pendidikan guru yang bermutu, maka penyelenggaraan pendidikan guru harus didukung oleh perangkat penyelenggaraan yang mencakup:

1. Program utuh Pendidikan Guru yang tertuang dalam kurikulum pendidikan guru secara utuh (S-1 dan PPG) yang dikembangkan atas dasar sosok utuh kompetensi guru.
2. Proses pembelajaran yang menekankan kepada penyediaan pengalaman dan penugasan yang terkait dengan pencapaian kompetensi *(competency base instruction)*, dan pengalaman lapangan yang bernuansa penerapan dan penajaman kemampuan akademik kependidikan di dalam prakatek yang berlangsung dalam seting otentik, dengan supervisi yang berkelanjutan.
3. Asesmen penguasaan kompetensi baik yang terkait dengan kemampuan akademik kependidikan maupun professional, yang dilakukan secara tertulis dan pengamatan kinerja, dengan sedapat mungkin melibatkan asosiasi profesi di dalam uji kompetensi.

To ensure the provision of quality teacher education, a teacher education institution should be supported by institutional tools that include:

1. An intact Teacher Education Program as stipulated in the teacher education curriculum as a whole (S-1 and Teacher Professional Education) which was developed on the thorough basis of teacher competences.

2. The Instructional processes that emphasize the provision of experiences and assignments related to the achievement of competencies (competency base instruction), and field experience for the sake of applying academic education and sharpening practical capabilities in an authentic setting with continuous supervision.

3. Assessment of good mastery of competencies related to academic ability and professional education, which is made in writing and observation of performance, that possibly involves professional associations in the competency test.

4. LPTK's partner and laboratory schools developed in line with established standards, as a practicum area for student teachers to apply their academic skills in an authentic educational

[2] Summarized from ALPTKI-Ditjen Dikti. Panduan Pengembangan Kurikulum LPTK, 2013

[3] Summarized from Revitalisasi LPTK dalam Penyelenggaraan Pendidikan Profesi Pendidik, ALPTKI, 2009


ISBN: 978-602-74576-0-7

setting, with the support of an effective institutional cooperation, preparation of competent master teachers to facilitate the student practicum, and availability of learning facilities that can be used to support their teaching practicum.

5. A dormitory for prospective teachers, as a place to develop their real personality, identity and competencies.

6. Teaching staff members should hold a minimum academic qualification of master's degree (S-2), are able to supervise the Teacher Professional Education (PPG) and simultaneously maintain the quality of the S-1 (teacher education).

7. Stakeholders cooperation, in terms of prospective student recruitment, instructional organization especially in the use of learning resources and the graduate placement.

8. LPTKs organizing the teacher professional education have to meet the standards: (a) act as a recipient of educational credentials with an appropriate institutional organization, (b) guarantee the readiness of the department/study program for PPG in developing scientific and educational practices, (c) provide the S-1 teacher education, (d ) implement an institutional organization and governance that ensure the availability of the PPG support system which is legally assigned and mandated by the government.

   Lengthy experience possessed by LPTKs, especially the members of the Indonesian Association of Teacher Education Institutions (ALPTKI), support their readiness to run PPG program. However, to meet the standards of the organization and to strengthen and restore the LPTK support capacity, the LPTKs require revitalization and political support in terms of:

   a. The philosophical and scientific affirmation and strengthening that becomes basic system for providing teacher education and education for other educational professionals, namely, a research based-system developed to improve the administration and quality of teacher education.

   b. Strengthening the substance of science, technology and art that must be mastered by prospective teachers, based on the research findings with the support of information technology, which can foster quality learning process for prospective teachers, improvement of national competitiveness, and sustainability of community life.

   c. Institutional capacity building, governance and managerial development that ensure the organizational wellbeing, academic-scientific philosophical development and strengthening of teacher education, quality assurance, transparency and public accountability.

   d. Government's supportive regulations which ensure the LPTK's institutional and organizational robustness and health, standardization of PPG organizing LPTKs and appointment of LPTKs that truly meet the standards, and teacher education financing that is prioritized in the government budget as the Teacher Professional Education a mandate of Law No. 14/2005. Professional education cannot be provided in a large group and would therefore require a high cost.

   e. Teaching staff capacity building through a further study for lecturers and in house training programs to upgrade their professional skills that ensure the preservation of the quality of teacher academic and professional education as a whole, which is manifested in the quality education of prospective teachers.

   f. Development of teacher education program diversification, particularly to meet the needs for teachers the LPTKs cannot meet directly, such as needs for vocational school teachers, through cooperation with other universities and other partner institutions to generate transnationally competent teachers.

   g. Promoting research and scientific development to improve the quality of learning, strengthening teacher education foundations, improving the philosophical foundations of educational science and learning, scientific publications, enhancement of national competitiveness, national education policy restructuring, and sustainability of community life in the global competition.

   h. The development of quality of teaching, which is able to build the wholeness of competences and the internalization of quality learning values in the prospective teachers.

   i. Guidance for prospective teachers that can


ISBN: 978-602-74576-0-7

build personality and internalize professional values of educators, among others, through boarding teacher education program.

j. Provision of facilities and infrastructures supported by the availability of information technology for the managerial renewal and modernization, DSS development, expanding access and improving the quality of learning, and developing the boarding teacher education program.

k. Self-evaluation and accreditation system management that withholds the LPTK uniqueness as a teacher academic and professional education institution.

l. Strengthening the role and responsibilities of ALPTKI as a government counterpart in ensuring the implementation of Teacher Education and national education policies.

m. Establishment of cooperation with stakeholders to ensure the success of teacher education, in relation to student recruitment, learning and learning processes, and graduate placement.

**In-Service Professional Development**

Teacher Competency Test (UKG) administered by Kemdikbud presented unsatisfactory results. Of the 2,699,516 teachers who were tested, only 118.444 teachers (4.39%) obtained a score of 80 and higher on the scale of 0-100. A steps taken by the Directorate General of Teachers and Education Personnel, is currently develpoing a teacher development system through the application of of Teacher Learner principle. This program was developed and prepared in the form of modules, delivery system designed through face-to-face classroom activities, a combination of classroom and on line activities, and full online. Each teacher learner learns one or more modules of of the ten modules available, that correspond to their need for increased competence. Those teen moduls were written based on a map of the teachers' weaknesses in mastering the pedagogic and professional competences as shown by the UKG results.

**Concluding Statement**

All the ideas described above require the support of government regulations which will become a legal shield and reinforce teacher education and in-service teacher training in Indonesia. The regulations must be consistent with academic philosophical thoughts of teacher education and the future directions of Indonesian education, in the context of strengthening the national identity and existence in the global arena.

Transnational and cultural processes and dynamics in various areas of life, including education and teacher education, may not be hampered, even those processes should be facilitated by preparing a variety of programs that are culturally accommodating.

**References**

ALPTKI. (2009). *Revitalisasi LPTK Dalam Penyelenggaraan Pendidikan Profesi Pendidik*

---------- . (2013). *Himpunan Ragam Deklarasi*

----------, UPI, Ditjen Dikti. (2013). *Panduan Pengembangan Kurikulum LPTK (Program Akademik dan Program Profesi Guru)*

Kartadinata, Sunaryo. (2007). *Penegasan Mandat Universitas Pendidikan Indonesia*

Universitas Pendidikan Indonesia.(2010). *Redesain Pendidikan Profesional Guru*

UU No. 14/2005 Tentang Guru dan Dosen


ISBN: 978-602-74576-0-7

# Teacher education and teacher's professional development in Finland: Myths and Realities.

HEIDI LAYNE

*University of Helsinki, Department of Teacher Education*

*Abstract*

In recent years the Finnish education system, policies and discourse about education have been deeply affected by the imaginary of the World's best education system based on the OECD Program for International Student Assessment (PISA). According to the Ministry of Education and Culture, one of the basic principles of Finnish education is that all people must have equal access to high-quality education and training. The same opportunities to education should be available to all citizens irrespective of their ethnic origin, age, and wealth or where they live. Education policy is built on the lifelong learning principle. At the same time the argument that teachers should become ethical intercultural teachers is increasingly recognized as legitimate. This paper introduces, how Finnish education became famous worldwide, the historical and societal reasons for "success", the national core curriculum and role of teacher education in the education "miracle". Furthermore it reports the results of a narrative-grounded investigation of student teachers' professional development to become ethical intercultural teachers.

## Introduction

Finnish policy analyst Pasi Sahlberg describes how, since the 1970s, Finland has changed its traditional education into publicly financed education system with extensive equity, good quality and wide participation (Sahlberg & Hargreaves, 2011). This is one of the many explanations used in clarifying, why in 2001 Finland ranked as number one in the OECD Programme for International Student Assessment (PISA). PISA results can be seen as the heralding of exporting the Finnish education to the world. This has resulted in creating myths and imaginaries about Finnish education system such as Finnish children do not have homework, there are no assessments in schools, Finnish honesty and the homogeneity of Finnish society setting an easy ground to organize equal education system (Dervin & Layne, 2013; Sahlberg, 2015). Another images of Finnish education are that the teachers are respected, trusted, valued and appreciated. Some of these and other myths and realities are discussed in this paper.

Finish teacher education is often mentioned among the educational success stories. Teachers in Finland in all levels are educated in the research universities. Teacher profession is often described as highly respected professions in the society. One way to justify this is that teacher profession is very popular amongst young people (mainly female), for example in 2014 only 10% of the applicants were admitted to the University of Helsinki to study in the elementary level teacher education program (studentum.fi). This means that 2371 young people applied in to the teacher education program in the University of Helsinki, and only 122 were accepted to the study program. The salary level is also comparatively good in the global perspective, but also claimed to be too low compared to the high level of education. In this paper 1.) the Finnish education system is explained through facts and 2.) further reflected as the myths and realities emphasizing the teacher education and professional development.

## Facts about educational policy and national curriculum guidelines

According to the Ministry of Education and Culture, one of the basic principles of Finnish education is that all people must have equal access to high-quality education and training. The same opportunities to education should be available to all citizens irrespective of their ethnic origin, age, and wealth or where they live. Education policy is built on the lifelong learning principle. The basic right to education and culture is recorded in the Constitution. Finnish education is free at all levels from pre-primary to higher education. However in the upper secondary education the students need to pay for the schoolbooks.

Ministry of Education and Culture in Finland states that the key words in Finnish education policy are quality, efficiency, equity and internationalization. Basic education is a free nine-year education provided for the whole age group in comprehensive schools. Compulsory schooling starts in the year when a child turns seven and ends after the basic education syllabus has been completed or after ten years. Completing the basic education syllabus does not lead to any qualification, but the school-leaving certificate gives access to all upper secondary education and vocational training.

The Finnish National Board of Education determines the national core curriculum. It includes


ISBN: 978-602-74576-0-7

the objectives and core contents of different subjects, as well as the principles of pupil assessment, special-needs education, pupil welfare and educational guidance. The education providers, usually the local education authorities and the schools themselves draw up their own curricula for pre-primary and basic education within the framework of the national core curriculum. Currently the new national curriculum has been accepted and it will become active 2016. New curriculum emphasizes developing schools as learning communities, and promoting the joy of learning and a collaborative atmosphere, as well as promoting student autonomy in studying and in school life (National Curriculum for Basic Education, NCBE, 2016). The learning goals of the transversal competences are described as seven competence areas. These competence areas are:

- Thinking and learning to learn
- Cultural literacy, communication and expression
- Managing daily life, taking care of oneself and others
- Multiliteracy
- ICT-skills
- Entrepreneurial and work life skills
- Participation and building sustainable future

This is a new way of combining competence-based and subject-based teaching and learning. Nevertheless, the traditional school subjects will live on, though with less distinct borderlines and with more collaboration in practice between them. In the new curriculum the aim is to shift from the idea of multicultural education towards multilingualism and cultural competencies as well as multiliteracy (NCBE, 2016).

Basic education is divided into grades: Classes 1–6 are mainly taught by class teachers, and classes 7–9 by specialized subject teachers. As a rule, all teachers have a Master's-level university degree except the kindergarten teachers who have Bachelor's degree and they teach children from one year old up to six year olds, including pre-school education. Teachers themselves can choose the teaching methods they use in order to achieve the objectives stated in the curriculum. The national core curriculum includes the guidelines for choosing the methods. Commercial publishers mostly produce learning materials. The schools and teachers themselves decide on the material and textbooks used. The same applies to the use of ICT. Students who do not master Finnish or Swedish on a mother tongue level need to be provided Finnish/Swedish as a second language teaching during the school hours. The context and methods for teaching Finnish/Swedish as a second language varies. Own mother tongue teaching is recommended but it takes place outside the school hours, and since it is not mandatory according to the language education policies, the quality and resources to provide such teaching varies. Mother tongue teachers often lack the background in education, which may affect to the quality and how it is delivered.

**Facts about Finnish Teacher Education**

Since 1974 teacher education for all comprehensive level teachers have taken place in the research universities. With the reform of the entire higher education system in 1979 in Finland, graduates of the teacher education programme started to receive the same degrees as those from all other fields at universities. After this reform all teachers have taken a higher academic degree (M.A.); class teachers majoring in education and subject teachers in their teaching subject. This reform also lead to two comparable teaching categories with different focuses: Classroom teacher education and subject teacher education. Subject teacher were educated in the university since early 19th century, but until 1979 with Bachelor level of education. Starting in 1995 also kindergarten teachers have had a university level study programme where graduates must pass a Bachelor's degree examination. (Krokfors, 2007).

Academic education is based on scientific research and professional pedagogical practices (National education strategies 2004, 2002, 1999). Therefore Finnish teacher education is often referred as research based teacher education meaning that in teacher education students do not only learn how to teach, but they also learn to investigate teaching and learning (Jyrhämä & al., 2008; Krokfors, 2007).

Different universities and teacher education programs have different areas of specialisations. This may challenge the idea of the comprehensive teacher education system "as reality". Mainly it refers to the university comprehensive degree structure for education. In the following table you can find the structure for primary and secondary education degrees.

Table 1. The structure of Finnish Teacher Education

| **Primary School Teacher** | **Secondary School Teacher** |
|---|---|
| 5 year program | 5 year program |
| Majoring in education (teaching practices + Master's thesis) + language and communication studies | Majoring in the subject (languages, math, biology etc. |
| Minoring in school subjects (languages, math, biology…etc.) | Minoring in one or two other subjects |


ISBN: 978-602-74576-0-7

| | |
|---|---|
| Minoring to other subjects (arts, multicultural education) | Minoring in education (Teacher's pedagogical studies) |
| **5 year program (3BA + 2 MA)** | **5 year program (3BA + 2 MA)** |
| Eligible for doctoral studies | Eligible for doctoral studies |

*Teaching practice*

The main emphasis of teaching practice is to integrate theoretical aspects to practice at all levels of teacher education. It is also a key element in developing the pedagogical thinking during the teacher education. Teaching practice takes place in the university based teacher training schools or in the partner schools chosen by the university. The student teachers observe, keep a record of their observations, plan the lessons and get feedback from their teaching from the supervisor from the school and also from the university teacher. After the teaching practice, the student teachers often reflect on their experiences during the lectures in the university (Krokfors, 2007; Layne & Lipponen, 2014).

*Teachers' Professional development*

The education system in Finland is built to promote the lifelong learning. Professional development requirements differ by municipality, since the education is funded on the municipality level. Each municipality is demanded by the national government to fund at least three days of professional development each year. How ever the quality and content of professional development varies. The government does not regulate what types of professional development teachers engage in. Research indicates that the average Finnish teacher spends seven days a year on professional development, with some municipalities arranging large, multi-school training events and others leaving it up to schools to develop in-service programs (Sahlberg, 2011).

**Finnish Education - From myths to realities**

*"There are no assessments and homework in Finnish schools"*

Sahlberg (2011) argues that a global educational reform exist in the world to standardize the education worldwide. Moreover his argument is that Finland is not part of that reform, and that Finland never wanted to be the number one in education, but more wanted to create an education system where children learn to learn. Based on this argument, a myth exist that there are no tests and assessments in the Finnish Schools. The fact is that there are no standardized testings in basic education. However in Finnish schools teachers organize both formative and summative assessments to the students. There are also national sample based assessments. During the first and second grade children get written evaluation on their school reports in the end of fall and spring terms. From the 3rd grade onwards they get numbered evaluation reports. The assessment scale in those reports is from 4 (failed) to 10 (excellent). When completing the compulsory education after the ninth grade the students get report and they apply to upper secondary education, or to vocational training with average score results. Upon completing the upper secondary education students take part to Finnish matriculation examination. (Sirkku Kupiainen, 2015, Presentation in Summer School for Understanding Finnish Education: From Myths to Realities-course, Helsinki, Finland).

Teachers' work is not assessed. One of the myths about Finnish education system is that it is built on the trust. Finnish education often promotes the idea of Finnish people being somehow exceptionally honest people. However all of these imagines need some further clarifications (Dervin & Layne, 2013). This also explains the image of appreciated and respected teachers. Teachers are seen as the "norm" and model citizens. The system for school inspectorate was removed from the education system already in 1985 (Halinen & Järvinen, 2008). Finnish teachers have freedom to implement the curriculum in their teaching and there are not standardized systems for homework, but it is very common that Finnish children get homework.

*"Equal education in a monocultural society"*

Equality, monoculturalism and multiculturalism as terms can become misnomers in Finnish education if not further elaborated (Layne & Dervin, 2016). *First*, monoculturalism in Finnish context may be explained through the fact that there are two main state churches the Evangelic Lutheran and the Finnish Orthodox Church. However, besides the state churches there are many small religious groups, as there is a freedom to rehearse any religion. This makes Finnish society diverse in one dimension, but at the same time religion is one subject in the national curriculum. This positions children in the schools in between those who belong to the majority and who are part of the minorities. The school calendar is based on the rhythm of Evangelic Lutheran Church holidays. *Secondly*, an important dimension in the discussion about any education system is the history. Finland has experienced two waves of colonization. First Finland was under Swedish rule until Sweden lost Finland to Russia in the early 19th century. Finland then became a Grand Duchy of Russia until its


ISBN: 978-602-74576-0-7

independence in 1917. With this history we have influences from the past that affect on how we look into the history and how we teach history in the schools – what becomes important and what is Finnishness or "monocultural" or "multicultural" (Layne & Dervin, 2016). Also Finland has two official languages: Swedish and Finnish, which affects to the language choices in schools, and how the schooling is organized for Finnish and Swedish speaking people.

*Thirdly* the increase of immigration and refugee experiences in Finland is also challenging the idea of equal and monocultural society. Moreover the argument that teachers should become ethical intercultural teachers is increasingly recognized as legitimate in today's Finnish society. The amount of immigrants has risen radically in Finland since the 1990s. This has challenged Finnish teacher education and for example in 2009, the University of Helsinki started a separate multicultural teacher education program for kindergarten and elementary school teachers. The multicultural focus of the program means that the student teachers must choose multicultural education or teaching Finnish as a second language as their minor. In the traditional teacher education program, students have more variety for minor studies to choose from, and hardly any focus on multicultural education (Layne & Lipponen, 2014). The core values of the multicultural teacher education program are democracy, justice and equality in education, as well as gender and society (Curriculum for Multicultural Teacher Education, 2009). According to the curriculum, this type of program focuses on training "ethical" and "intercultural" teachers and on "emphasizing lifelong learning" (Curriculum for Multicultural Teacher Education, 2009). Nowadays all the teachers education programs in the University of Helsinki have multicultural studies and students can choose it as a minor. Despite the history, before the ethnic diversification of Finland there was neither strong representation of diversities nor a need for intercultural education research, except in language education. Only after the amount of immigrants increased, intercultural education became popular both in practise and in research (Riitaoja, 2013). Moreover in this light it is very important to understand the "both sides of the coin" – the myths and the realities. Creating an image of one system being "better" than the others needs to be questioned in the light of different historical, political and societal contexts.

## Conclusions

This paper started by stating that Finnish education is what is increasingly considered as the *imaginary of the World's best education system* according to the OECD's Program for International Student Assessment (PISA) (Schatz, Dervin, & Popovic, 2015). The aim of this paper was to introduce and explore some realities and myths about the Finnish Education system based on previous studies and education policy documents. Also the idea was to challenge the different multilayered dimensions that intersect with one another when discussing about one education system as a "model of education". As there is always the other side of the coin, however, when Finland dropped in the study in December 2012 some researchers tried to find a reason, and the blame started to be put on the lower or lack of success of immigrant students who were deemed not to be able to study properly in Finland because of the "high quality" of the education system and their lack of Finnish language skills (Harju-Luukkainen et al. 2014). In this framework there is some imbalance in between the myths and realities, and also what is the best education system and to whom? There is difference in between having equal access to the education, and having an education system where students and teachers are positioned equally. In what level education can be separated from the society: it's history and politics is an important question in comparing (or exporting) education in between countries.

University level teacher education may be one way to standardize the quality of education. However there is also criticism that because of the high amount of the applicants to the teacher education in Finland, actually the best achieving young people get in. However these well achieving young student teachers may not understand the lives of diverse student body in today's Finnish society. New types of imaginaries are rising about the Finnish education such as the world has changed a lot but not the education system. One challenge for teacher education in Finland is to educate future teachers, who critically reflect on the learning materials. There may be a gap in between the learning materials and the students' real life experiences (Dervin & al., 2015).

## References

Dervin, F. & Layne, H. (2013). A guide to interculturality for international and exchange students: an example of Hostipitality? *Journal of Multicultural Discourses, 8*(1),1–19.

Dervin, F. Hahl, K., Härkönen, A., Layne, H. (2015). "Do I contradict myself? Very well, I contradict myself (...)": Representing Intercultural Encounters in Two Finnish History Textbooks. In Hahl, K, & al.. (Eds.). *Diversities and interculturality in textbooks: Finland as an example*. Newcastle upon Tyne: Cambridge Scholars Publishing.


ISBN: 978-602-74576-0-7

Halinen, I. & Järvinen, R. (2008). Towards Inclusive Education: The case of Finland. *Prospects, 38:77-97.*

Helsingin yliopisto. 2009 [University of Helsinki. 2009]. Monikulttuurinen lastentar- hanopettajakoulutuksen opetusohjelma keväälle 2009 [Curriculum for the Multi- cultural Kindergarten Teacher Education Program for the Spring 2009]. Helsinki: Helsingin yliopisto, opettajankoulutuslaitos.

Jyrhämä, R., Kynäslahti, H., Krokfors, L., Byman, R., Maaranen, K., Toom, A. & Kansanen, P. (2008). The appreciation and realisation of research-based teacher education: Finnish students' experiences of teacher education. *European Journal of Teacher Edu- cation, 31*(1), 1-16.

Krokfors, L. (2007). Two-fold role of pedagogical practice in research-based teacher educa- tion. In R. Jakku-Sihvonen, & H. Niemi. (Eds.), *Education as a societal contributor. Reflections by Finnish educationalists.* Frankfurt am Main: Peter Lang.

Layne, H., & Lipponen, L. (2014). Student teachers in the contact zone: developing critical intercultural "teacherhood" in kindergarten teacher education.
Layne, H. & Dervin, F. (2016). Problemtizing Finland's pursuit of intercultural (kindergarten) teacher education. *Multicultural Education review: DOI:10.1080/2005615X.2016.1161290*

Riitaoja, A.-L. (2013). Riitaoja, A.-L. 2013. "Toiseuksien rakentuminen koulussa. Tutkimus opetussuunnitelmista ja kahden helsinkiläisen koulun arjesta [Constructing Otherness in School: A Study of Curriculum Texts and Everyday Life of Two Primary Schools in Helsinki]." PhD diss., Helsingin yliopisto, Tutkimuksia 346

Sahlberg, P., & Hargreaves, A. (2011). *Finnish Lessons*: Teachers College Press.

Sahlberg, P. (2011). "The Professional Educator: Lessons from Finland", American Educator 35, no. 2. (PDF)

Sahlberg, P. (2015). *Finnish lessons 2.0*. Teachers College Press: Columbia University, NY & Eurospan, London.

Schatz, M., Dervin, F., & Popovic, A. (2015). From PISA to national branding: exploring Finnish education. *Discourse: Studies in the Cultural Politics of Education.* 10.1080/01596306.2015.1066311


ISBN: 978-602-74576-0-7

# Continuous Professional Development Framework and Programs for Teachers – The Case of Hong Kong

**Prof. Shun-wing NG**
**Department of Education Policy and Leadership**
**Hong Kong Institute of Education**

## Abstract

In the era of reform, teachers should be a continuous learner in order to advance the quality of learning and teaching in school. Thus, to keep pace with educational development and to meet the changing need of students, the need for continuing professional development (CPD) is a deep-rooted conviction in the teaching profession. This paper aims at introducing the practice of teachers' CPD in Hong Kong undertaken by the Advisory Committee on Teacher Education and Qualifications (ACTEQ) which sets out a Teacher Competencies Framework (TCF) to provide teachers and schools an essential instrument for the advancement of the planning and practice of teacher' CPD and specify the competencies expected of a teacher at different stages of professional development. Second, it highlights how teachers CPD is implemented in terms of the content, mode and timing of the activities with the objectives of nurturing a CPD culture in school and encouraging the integration of teachers' CPD with school development. Third, it illustrates the structured CPD programs offered to frontline teachers by the Hong Kong Institute of Education. Finally the paper concludes by drawing readers' attention to the importance of providing beginning teachers with CPD through induction and mentoring support in early years of their teaching career.

## Context and Underpinnings of Teachers' CPD

The need for CPD is an inherent belief in the teaching profession. Teacher quality must be placed at the center of school reform issues. Without it, enhancing school performance will remain unfulfilled (Laine & Otto, 2000). Moreover, Kent (2004) argues that linking professional development to teacher quality and teacher competence can yield student accomplishment. Teachers can also meet the fast changing needs of pupils in education reforms through CPD which is concerned with the ways of how they conceptualize and actualize teaching effectiveness whereas the notion of effective teaching is connected with how best teachers achieve the desired goal of pupil learning through educational activities (Kyriacou, 1986).

For educators in Hong Kong, the rapid societal changes have meant an end to the mere focus on academic achievements. Instead, our schools are concerned to foster the whole personal development of students. Learning and teaching activities nowadays are no longer confined to classrooms, but extend into the wider community. In this regard, the willingness and competencies for lifelong learning, which we expect from our students, should also be reflected in our teachers (ACTEQ, 2003). To advance the quality of our education system and the quality of students' learning, teachers' CPD is crucial to and essential for preparing tomorrow's citizens of Hong Kong. While it is widely acknowledged that there is a need for a new emphasis on teachers' CPD, the issue of this can be substantially realized in a well-planned, systematic and coherent manner is worth exploring. Since there are more than 55,000 teachers in both primary and secondary schools in Hong Kong, it really requires a common reference framework for demonstrating direction and establishing momentum in CPD.

In Hong Kong, ACTEQ (2003) issued its first report on teachers' CPD entitled "Towards a Learning Profession: The Teacher Competencies Framework (TCF) and the Continuing Professional Development for Teachers". Schools then started to try out teachers' CPD in accordance with the TCF. ACTEQ, at the same time, commissioned research projects to collect data regarding implementation of teachers' CPD in school. In 2006, ACTEQ issued its second report entitled "Towards a Learning Profession: Interim Report on Teachers' Continuing Professional Development. After the three years' trial period, ACTEQ issued the third report on Teachers' CPD in 2009 to share the progress made and, most importantly, make recommendation to improve implementation of CPD in school in the years to come.

## The Teacher Competencies Framework

In Hong Kong, the content and design of the TCF are geared mainly to promoting teachers' professional growth at different stages. Many scholars have used stage models to conceptualize teacher development. Gregorc (1973) presents a four-stage model being composed of becoming, growing, maturing and fully functioning stages. Fuller & Bown (1975) suggest a three-staged model with survival, mastery and the stage where the teacher may become


ISBN: 978-602-74576-0-7

stable or may concern about pupils' feedback. Fifteen years later, Galton (1989) also proposes another three-staged model that describes stages of development of teaching effectiveness varying from novice, through beginner, competent, proficient to expert level. Vonk (1989) also identifies three phases of pre-professional, threshold and growing into profession before a teacher is considered professional. Beliner (1994) portrays five levels of teacher development ranging from novice, advanced, beginner, competent, proficient and expert levels. Kowalchuk (1999), cited in Li (2003), addresses the professional development of teachers in terms of three paradigms, namely the technical-developmental perspectives in which acquiring generic skills is of primary importance, the subject matter orientation in which making connections between content knowledge and pedagogy is the main focus of learning to teach, and the ecological interpretation in which a teacher's reflection on environmental and life experiences is regarded as contributing to making professional decisions.

*Rationale of TCF*

The teachers' CPD needs vary from one to another person and from school to school. A general TCF therefore enables individual teachers to make significant and constructive self-evaluations of their learning needs over a period of time and a spectrum of professional experience. A properly charted TCF prominently assists in the retaining of an expert professional teaching forces. It serves to illustrate what teacher competencies should widely embrace during the various stages of the .teachers' professional growth and development. It offers a template that schools can adopt for developing school-based professional development framework in accordance with the context and background of the school, their students and their teachers. In addition, the TCF is guided by the principles that teachers, as professionals should be well-equipped with subject and pedagogical knowledge, professional skills and key attitudes and values; that individual teachers can select to specialize or excel in specific domains of schoolwork as they grow in professional maturity; and that teachers have a responsibility to be professionally up to date and to strive for continuous personal growth and professional excellence through lifelong learning.

The content of the generic TCF is constructed with the beliefs that informed teaching and professional practices improve students' learning; that the all-round development of teachers is as important as the all-round development of students; and that collaboration and networking are essential in improving teacher effectiveness. Professional teachers are expected to possess some core professional values. They are recognized for their love and care for their children, their passion for the subject knowledge they deliver in the classroom, their support and encouragement in assisting students in achieving their best and their nourishing personality. The fundamental beliefs, values and attitudes of teachers have to be affirmed before any deliberation of teacher competencies can be meaningful. Moreover, teachers as professionals believe in sharing and teamwork. It is of paramount importance of the teachers' passion for continuous learning and self-improvement. Last but not the least, a teacher is valued as a person, whose physical and spiritual well-being is crucial and vital to the education profession (ACTEQ, 2003).

*The structure of TCF – domains, dimension, strands and stages*

As the TCF is of developmental nature, it portrays teachers' development in terms of growing competencies and expansion of responsibilities. It is constructed as a map to guide the teachers to develop in a journey towards fuller professional maturity. Schools are encouraged and expected to make their own adjustments and establish a set of references that help identify the way ahead and lead to school improvement through professional development. Professional competencies are composed of skills, abilities, knowledge and attitudes required to achieve professional goal efficiently. The TCF has a multi-dimensional hierarchy of domains, dimensions, strands and stages. It is built around four core domains, namely "teaching and learning, student development, school development, and professional relationships and services" (See Figure 1). Each of four domains is extended by four dimensions, each of which includes a number of strands. The four core domains of the generic TCF cover the major responsibilities typical of a classroom teacher. The domains are interconnected and interactive with each other.

**Figure 1 Domains and Dimensions of the TCF**

**1. Teaching and learning domain**
- *Subject matter knowledge*
- Curriculum and pedagogical content knowledge
- Teaching strategies and skills, use of language and multi-media
- Assessment and evaluation

**1. 2. Student development domain**

- Students' diverse needs in school


ISBN: 978-602-74576-0-7

- Rapport with students
- Pastoral care for students
- Students' different learning experiences

***3. School development domain***

- School's vision and mission, culture and ethos
- Policies, procedures and practices
- Home-school collaboration
- Responsiveness to societal values and changes

4. ***Professional relationships and services domain***

- Collaboration relationships within the school
- Teachers' professional development
- Involvement in policies related to education
- Involvement in policies related to education
- Education-related community service and voluntary work

Each dimension has a number of strands with stage descriptors linking typical competencies with specific stages of teachers' professional maturity. The adjectives, "threshold", "competent" and "accomplished" are used to identifiable stages on a continuum of growing professional achievement. The TCF is not meant to imply rigid, linear, stage-by-stage progression. It is not intended either that the right-hand end of the chart represents a progression all through their careers as teachers refocus their professional commitment to accommodate their needs of the rapidly changing society. Under the "threshold" column, the stage descriptors outline the basic competencies expected of teachers. As "teaching and learning" is the most crucial focus of any teacher's work, it is acknowledged that the "threshold" requirements for this domain will be more sophisticated than those for the others. The illustration of Figure 2 indicates the relationship between the teaching and learning domain, its dimensions, stage descriptors throughout the TCF.

The illustration reflects the progression of complexity in evaluating teachers' quality in the domain of teaching and learning in school. It also highlights that it provides with the function of formative assessment in which the aim of assessment for learning is of primary focus of the TCF.

In sum, varieties of stage models have been developed over the years to help conceptualize and study teachers' professional development. These models do not confine teacher development at the level of classroom alone since attributes of teachers includes various aspects such as personality traits, relations with colleagues and pupils, commitment to the profession, content knowledge which bear a significant part on teaching effectiveness. The TCF is of no exception. There is a deep belief that the conceptualization of the TCF can enhance teachers' professional development. There will be positive impact on teacher quality in terms of professional progression (Kent, 2004). The framework is adopted to help teachers locate identifiable stages of growing professional achievement.

**Figure 2 Competency descriptors in the teaching and learning domain**

**Dimension: Assessment and Evaluation**

| | **Threshold** ⇒ | **Competent** ⇒ | **Accomplished** ⇒ | | |
|---|---|---|---|---|---|
| **Student assessment methods and procedures** | *Able to follow the statutory assessment and reporting requirements and knows how to prepare and present informative reports to students recognizes the level at which a student is* | Makes appropriate use of established assessment methods and procedures; maintains comprehensive records of student progress as well as achievement and provides essential feedback to students | Uses established assessment methods and procedures proficiently, and occasionally adapts them to match the nature of the teaching and learning being assessed; provides students with positive feedback that reinforces student | Uses a wide repertoire of assessment modes and consistently matches these to the teaching and learning being assessed; provides students and parents with accurate and informative assessment reports at appropriate times | Reviews constantly the various assessment modes and aligns them with the current curriculum objectives and current beliefs and practices in assessment |


ISBN: 978-602-74576-0-7

| | | | | | |
|---|---|---|---|---|---|
| | *achieving and assesses students against attainment targets* | | achievement and focuses on improvement | | |
| **Use of student assessment results** | | Accepts that assessment results measure effectiveness of learning and teaching but rarely refers to assessment results when planning a lesson | Readily uses assessment results to improve teaching and learning, to plan for the class as a whole, and occasionally to plan for individuals and groups of students | Uses assessment results effectively to improve teaching and learning and to plan for the whole class, as well as for individuals and groups of students across a year level or within a particular key learning area | Uses assessment results consistently to develop programs that improve student learning |
| **Evaluation and review of teaching and learning programs** | | Able to relate the evaluation results of the different learning programs in school to own teaching; uses evaluation data effectively to inform school-based curriculum decisions | Appreciates the core issues in designing school-based evaluation for the improvement of teaching and learning; able to choose and design simple and appropriate evaluation tools if necessary | Appreciates the core issues in designing school-based evaluation for the improvement of teaching and learning able to choose and design simple and appropriate evaluation tools if necessary | Takes a lead in designing and implementing an effective evaluation program for the school-based improvement of teaching and learning |

* Adopted from ACTEQ (2003)

**Teachers' Continuing Professional Development in Hong Kong**

The TCF brings out the signal that teachers have many choices while moving on to higher stages of professional development. For smooth progression, teachers need to be provided with opportunities for CPD. Therefore, a successful CPD policy could help facilitate teachers' CPD. Teachers' participation in CPD can refresh, enrich and broaden their professional knowledge, skills and experience for the benefit of students. Their CPD caters for both personal and school development needs. It is believed that the opportunities of teachers' CPD need to reflect their unique professional and personal interests, as well as stages of professional maturity they have achieved in their careers.

*The practice of teachers' CPD in Hong Kong*

Firstly, schools in Hong Kong have to set aside "three" days each year for school-based staff development activities. The themes and topics selected for the staff development days are specific and relevant to the developmental needs of both the school and its teachers. Therefore, all teachers participate in a wide range of professional development activities, including workshops and talks by guest speakers, the sharing of learning outcomes among colleagues, school visits and so on. In addition, the professional development activities could be initiated by either individuals, middle leaders or their principals.

Secondly, all teachers, regardless of their rank and capacity, should engage in CPD activities of not less than "150" hours in a "three-year" cycle. The hours teachers participating in the three school-organized staff development days will be fully recognized and counted towards the requirement of CPD. Besides, the content, mode and timing of activities are the key components of any CPD plan. In this regard, the TCF could provide a reference tool for identifying teachers' professional development needs and a context for aligning these needs with those of their schools. An appropriate balance regarding the content of CPD should be made between personal development and professional needs. ACTEQ sets the guidelines that:

- "not less than 50 CPD hours" should be spent on "structured learning activities


ISBN: 978-602-74576-0-7

such as short courses, seminars and conferences, workshops, degree-awarding programs;

- "not less than 50 CPD hours" could be spent on other modes of CPD orschool-based professional development activities such as sharing of innovative teaching practice within and across schools, sharing of professional readings and ideas in the context of learning, mentoring, serving in education-related committees, being trainers or facilitators for any professional development activities.
- the rest of the CPD hours can be freely apportioned between structured and other modes of CPD at the discretion of individual teachers; and
- time spent on staff development organized by school should be well recorded in accordance with the mode of their CPD.

*Implementation considerations*

It is of paramount importance for schools to come up with consensus among teachers with regard to the content, mode, duration of their CPD since the needs of CPD differs from person to person and from school to school. Teachers are expected to share the same vision and direction as the school. They should have professional responsibilities to plan and manage their own CPD. A balance between school needs and teachers' needs is recommended. It is also desirable for both the school and the teachers to maintain formal records of teachers' CPD. On the other hand, as the TCF could provide principals with hints regarding teachers' professional development needs, it is of vital importance for the principals to understand the nature and intended purposes of the TCF which is regarded as one of the main leadership areas in the principal training programs.

CPD is a right and an obligation to teachers who play a crucial role in supporting their colleagues in school. They should make a leading contribution to the successful implementation of the CPD framework as they are significant change agents of education reforms. School principals should include teacher's CPD as a key part of their development and eventually for the benefit of students. Therefore, school leaders have the responsibility to ensure that all teaching staff have sufficient opportunities to engage in CPD programs and activities including both school-based development activities and off-campus structured studying programs.

*CPD programs offered by the Hong Kong Institute of Education*

It is recommended by ACTEQ that teacher education institutions should work in close partnership with primary and secondary schools and the Government in supporting and promoting teachers' CPD in connection with the use of the generic TCF. Teacher education institutions are in a better position to collaborate with schools to design CPD programs that could cater for the needs of front-line teachers since the input of their academic scholarship helps facilitate integration of theory and practice in the programs adopting innovative and effective modes. In this regard, the Hong Kong Institute of Education (HKIEd) as the major providers for training of kindergarten, primary and secondary school teachers in Hong Kong has been working closely with both the Government and schools with regard to CPD programs to be offered. The CPD programs are structured short courses lasting for five weeks. They are designed in pace with the global educational trend and the changing educational context of Hong Kong. In the current academic year, the HKIEd has designed a total of 43 professional development programs (PDPs) for primary and secondary teachers to choose for their CPD studies. The PDPs demonstrated below in Figure 3 are composed of different domains such as subject teaching, professional skills and knowledge, management and leadership, and classroom management.

**Figure 3 Certificate in Professional Development Programs**

1. Catering for Diverse Needs of Young Children
2. Strategies for Promoting Children's Development: Working with Diverse Families
3. Mathematics Teaching for Primary School Teachers
4. Mathematics Teaching for Secondary School Teachers
5. In-Service School Teachers on Learning and Teaching of Probability and Statistics
6. Development of School-based Mathematics Learning and Curriculum
7. e-Learning in Primary and Secondary English
8. e-Learning in Primary and Secondary Mathematics
9. e-Learning in Primary and Secondary Chinese
10. e-Learning in Primary and Secondary Schools
11. Teaching English in Primary Schools Teachers Using English as the Medium of Instruction in Secondary Schools
12. Development and Implementation of Chinese Language Curriculum in Primary Schools


ISBN: 978-602-74576-0-7

13. Strategies for Teaching Chinese Language Studies in Putonghua in Primary Schools
14. Lesson observation on the Chinese Language Subject in Primary Schools
15. Catering for the Special Education Needs of Primary and Secondary School Students in Studying Chinese
16. Teaching Contemporary China in Liberal Studies Curriculum
17. Organization and Management of Other Learning Experiences for School Teachers
18. Deputy Heads in Primary Schools
19. Middle Leaders in Schools
20. Transformational Leadership for Team Innovation and School Improvement
21. Health Management and Social Care
22. School Health
23. Knowledge Management for Enhancing School Development
24. Life Planning Education and Career Guidance
25. Teaching and Learning of Global Issues in Liberal Studies
26. Effective Integration of Information Technology in Scientific Inquiry
27. Teaching Liberal Studies and Science on Environmental Sustainable Development
28. Effective Lesson Observation and Evaluation - A Whole School Approach
29. Teaching Chinese Language for Non-Chinese Speaking Students
30. New Paradigm of Learning and Teaching in Physical Education
31. Understanding Sex Education
32. Differentiated Instruction and Classroom Management
33. Teaching for Creativity and Critical Thinking
34. Civic, National and Moral Education in Schools
35. Positive Behavioral Support at Schools
36. Prevention and Handling of Unruly and Delinquent Behaviours in Schools
37. Communication, Mediation and Complaint Management
38. Catering for Diverse Learning Needs
39. Practical Legal Knowledge for Schools
40. Making Successful Learning-Oriented Assessment
41. Enhancing School Leaders' Positive Psychological Health and Well-Being
42. Applying Brain Science to Teaching
43. Enriching the Developing Brain

**Professional Development for Beginning Teachers: Induction and mentoring**

For about 30 years, educators have discussed the need to provide systematic and substantial support to beginning teachers in order to increase retention rates. Induction can be defined as a transitional period in teacher education between preservice preparation and continuing professional development, during which assistance may be provided. Beginning teachers, especially those in their first year of teaching, often encounter a reality shock as they transfer from a relatively sheltered pre-service teacher education program to a novel situation where they have to be personally accountable for their professional work (Lee & Feng, 2007). In this regard, beginning teachers need to acquire particular professional knowledge and expertise during the induction period. Many studies point to the impact of mentoring on the developing capabilities of beginning teachers, most notably their behavior and classroom management skills and ability to manage their time and workloads (e.g. Lindgren, 2007; Malderez, Hobson, Tracey & Kerr, 2007; Moor et al., 2005). Moreover, mentoring beginning teachers may have a positive impact on the professional and personal development of mentors (Hagger & Mclntyre, 2006).

The ACTEQ (2008) suggests that an induction and mentoring support framework agreed between teacher education institutions and the schools where beginning teachers teach has been established in order to ensure beginning teachers who can develop "threshold" competencies upon completion of a one year induction period. In the era of globalization, rapid changes in society arise from complex socio-political environments. Beginning teachers are required to take up expanded roles and responsibilities relating to teaching, curriculum development, students with diverse needs, changing forms of student assessment, broad range of student activities, professional development, involving parents, and interacting with the wider community. There is a strong need for providing beginning teachers with professional development opportunities in terms of effective induction and mentoring support to ease the transition to the teaching profession.

*Purposes of the induction program*

The induction program aims at beginning teachers' effective professional development. It is envisaged as a package of integrated program with school-based mentoring support that tackles their personal needs, instructional needs, operational needs and professional needs. Through on-site sharing and learning with experienced teachers, support for beginning teachers can be done. This induction program lasting a year has been established with the following objectives:


ISBN: 978-602-74576-0-7

- To provide comprehensive workplace experience for beginning teachers
- To provide integrated professional guidance and support to beginning teachers
- To lay a firm foundation for beginning teachers' lifelong education
- To help beginning teachers systematically reflect on and self-evaluate their own work.

Thus beginning teachers are expected to be accountable for their work. Opportunities for early professional development are essential. When their learning is supported and facilitated by mentors, they as mentees will benefit most in the workplace. Not only do they develop themselves professionally but they can exert positive influence on school improvement and school development. As the induction program is school-based in principle, many schools are adopting different approaches to establishing an effective induction system. However, it is expected that the system in each school should be composed of the following baseline expectations:

- A system with clear objectives, concrete plans, committed human resources and effective coordination
- A system in which each beginning teacher is given individual attention
- A planned effort to provide each beginning teacher with comprehensive learning experiences
- A portfolio to document each beginning teacher's path of development
- An evaluation system to inform the future development of schools' induction systems.

*Induction Completion Reference – Interim and final reviews*

To provide a common framework for effective induction and mentoring support for mentees, an Induction Completion Reference (ICR) being composed of a set of school-based pointers is recommended for use as a vehicle for facilitating the beginning teacher's first year learning in a specific context in order to ensure that the mentee can construct "threshold" competencies upon completion of a one-year induction period. The ICR is constructed with reference to the TCF comprising four professional domains.

The reference points illustrated in terms of "teaching and learning domain" in the following can help facilitate beginning teachers' self-evaluation and the mentors' provision of support and guidance to the mentees. School can make adjustments on the ICR to suit their needs. The mentors (experienced teachers) have to make reference to the school context and exercise professional judgment based on sound evidence when assessing beginning teachers' professional development performance. Figure 4 illustrates some reference points in accordance with four domains. Beginning teachers are requested to make reflections on which mentors will provide comments during interim and final reviews.

**Figure 4 Illustrations of Induction Completion Reference for four domains**

| **Teaching and learning domain** | |
|---|---|
| **Strand** | **Descriptors (Has the mentee fulfilled the following?)** |
| Command of subject matter knowledge | -Shows a basic command of subject matter knowledge in lesson preparation and delivery and through interaction with colleagues |
| Sharing and exchange of subject teaching practice | - Attends sharing and exchange sessions on specific subject areas in school when invited to |
| Command and application of pedagogical content knowledge | -Shows basic knowledge of the curriculum objectives of the subject taught, the learning targets and subject content when delivering lessons. |
| Curriculum design, implementation and improving | -Has basic understanding of the rationale, principles and structures of the relevant guides |
| Knowledge and application of teaching strategies and skills | -Is able to use a limited range of teaching strategies and skills in delivering lessons to students<br>-Instructions and explanations are mainly clear. |
| Language proficiency | -Displays an acceptable command of language appropriate to the subject and levels taught. |
| Students assessment methods and procedures | -Makes generally appropriate use of established assessment methods and procedures. |
| Use of student assessment results | -Is generally aware that assessment results measure |


ISBN: 978-602-74576-0-7

| | |
|---|---|
| | effectiveness of learning and teaching |

In addition, the list in Figure 5 below sets out daily responsibilities to be met by a beginning teacher during the induction period. The quantitative evidence in relation to mentees' responsibilities is to be validated by the mentor during interim and final reviews. The purpose is to ensure that mentee will acquire the minimum workplace and exposure to teach competently as a fresh teacher entering the profession. It is advised that each school can arrange matching job assignments for the mentees to ensure their scheme of work will adequately cover the listed tasks below throughout the first year of teaching.

**Figure 5 List of daily responsibilities in the induction program**

| Evidence |
|---|
| 1. Has taught at least a total of 210 hours. |
| 2. Has taught at least 140 hours in the major subject. |
| 3. Has observed at least 2 lessons in the major subject taught by peers/mentors. |
| 4. Has taught at least 2 lessons in the major subject that have been observed by other colleagues/mentor, with pre and post observation discussions being conducted. |
| 5. Has conducted at least 4 overall reflection exercises on the effectiveness of leaning and teaching. |
| 6. Has met requirements of Basic Information Technology. |
| 7. Has invited mentor or some peers to observe at least one of the lessons using multi-media teaching strategies. |
| 8. With mentor's support and sharing, has followed through in depth at least 1 case study with self-reflection on student development. |
| 9. Has been involved in at least one extra-curricular activity. |

## Conclusion: Enhancing teachers CPD in Times of Reform

The rapid changes due to ever-lasting reforms in the arena of education in contemporary society have meant an end to mere focus on academic performance. To meet the challenges of reform and change, it requires a relatively high degree of teacher professionalism. Teachers' CPD does matter in improving the quality of education as teachers are regarded as change agents. To enhance and improve teachers' CPD, the TCF is a measure of mapping their professional maturity since learning permeates the various stages of a teaching career which covers initial teacher education, induction and in-service professional development. Teachers undergo continuous learning to enhance their knowledge, skills and capacities and equip themselves with positive values and attitudes for the benefit of students.

While the TCF and in-service teachers' CPD framework were introduced in 2003, two reports regarding implementation of CPD in school were released by ACTEQ in 2006 and 2009 respectively. Members of ACTEQ have found that principals have played a significant role in planning and giving support in implementing teachers' CPD in school and teachers themselves should integrate their CPD needs with school development needs. ACTEQ also recommends to put more emphasis on school-based CPD and to promote the use of the TCF in planning school-based staff development activities. School management committees are also advised to make teachers' CPD one of the priority items in school development agendas.

As for beginning teachers' CPD, ACTEQ (2008) reiterates that in transition to becoming beginning teachers in the school context, the induction program consisting of ICR will ensure continuing support provided by the mentors and the school authority in line with the existing school-based practices. With regular feedback on mentees' performance, mentors can identify at first hand mentees' strengths and weaknesses so that apt support and guidance will be provided accordingly. Professional development opportunities and advice for beginning teachers within and outside schools can be identified and provided (Glatthorn, 1995).

In sum, the implementation of the teachers' CPD and the induction program for beginning teachers over the past few years has provided evidence that the impetus has been sustained. The development of whole teaching force into a learning community hinges on teachers' positive engagement in professional development activities in which the key of CPD is "learning". While effectiveness of teachers' CPD has been recognized and confirmed, there are still many questions such as "How might teachers' CPD be made more effective?" and "How effective is our CPD in improving student learning?" occupying our attention.


ISBN: 978-602-74576-0-7

**References**


ACTEQ (2003). *Towards a Learning Profession: The Teacher Competencies Framework and the Continuing Professional Development of Teachers*. Hong Kong: ACTEQ.

ACTEQ (2006). *Towards a Learning Profession: Interim Report on Teachers' Continuing Professional Development.* Hong Kong: ACTEQ.

ACTEQ. (2008) *Professional Development for Beginning Teachers – An induction tool kit 2008-09.* Hong Kong: ACTEQ

ACTEQ (2009). *Towards a Learning Profession: Third Report on Teachers' Continuing Professional Development.* Hong Kong: ACTEQ.

Berliner, D. C. (1994). Expertise the wonder of exemplary performances. In J. No. Mangieri & C.C. Black (Eds.) *Creating Powerful thinking in Teachers and Students: Diverse Perspectives*. Fort Worth: Harcourt Brace College.

Fuller, F. F. & Bown, O. H. (1975). Becoming a teacher. In K. Ryan (Ed.) T*eacher Education: The Seventy-fourth Yearbook of the National Society for the Study of Education, Part 2*. Chicago: University of Chicago Press.

Galton, M. (1989). *Teaching in the primary schoo*l. London: David Fulton.

Gregorc, A. F. (1973). *Developing plans for professional growth*. NASSP Bulletin, 57(337), 1-8.

Glatthorn, A. (1995) Teacher development. In Anderson, L.W. (Ed.) *International encyclopedia of teaching and teacher education* (2nd edn) (pp.41-46) Oxford: Pergamon.

Hagger, H. & Mclnryre, D. (2006). *Learning teaching form teachers: Realising the potential of school-based teacher education.* Maidenhead: Open University Press.

Kent, A. M. (2004). Improving teacher quality through professional development, *Education,* 124(3), 427-435.

Kowalchuk, E. A. (1999). Perceptions of practice: What art student teachers say and need to know. *Studies in Art Education*, 41(1), 71-82.

Kyriacou, C. (1986). *Effective teaching in schools*. Oxford: Basil Blackwell

Laine, S.W.M. & Otto, C. (2000). *Professional development in education and the private sector: Following the leaders*. Oak Brook, IL: North Central Regional Educational Laboratory.

Lee, J. C. & Feng, S. (2007). Mentoring support and the professional development of beginning teachers: a Chinese perspective. *Mentoring and Tutoring: Partnership in Learning. 15*(3): 243-262

Li, Y. L. (2003). Underpinnings of teachers' professional development – A new conceptualization of field experience. *Asia Pacific Education Review*, 4(1), 11-18.

Lindgren, U. (2007). New into the profession: a study of the mentoring of novice teachers in Sweden. *Journal of In-service Education. 33*(2): 241-234

Malderez, A., Hobson, A. J., Tracey, L. & Kerr, K. (2007). Becoming a student teacher: core features of the experience. *European Journal of Teacher Education. 30*(3): 225-248.

Moor, H., Halsey, K., Jones, M., Martin, K., Stott, A., Brown, C. & Harland, J. (2005). *Professional development for teachers early in their careers: An evaluation of the early professional development pilot scheme.* Nottingham: Department for Education and Skills.

Vonk, J.H.C. (1989). Becoming a teacher, brace yourself, Unpublished paper. Vrije University, Amsterdam, the Netherlands.



ISBN: 978-602-74576-0-7

# TEACHER PROFESSIONAL DEVELOPMENT IN AUSTRALIA AND ASIA

**Lesley Harbon**
**University of Technology Sydney, Australia**

There is a general consensus about what makes a good teacher, both among the scholarly academic communities whose energies are focused on research in teacher education (Connell, 1985; Palmer, 1997), and also among the wider population with their folk-wisdoms about good teaching. Scholars in the West have explored good teaching (Loughran, 2010), and much new research has recently appeared on this topic from English teacher-researchers in the Asian region (Stroupe & Kimura, 2011). Teachers who know their subject matter, who care for their students, are organised and well-prepared, and make learning engaging, are generally considered accomplished teachers. However the role of formalised teacher professional development in helping to create accomplished teachers is also a point of contention. A graduate teacher, also known as a beginning teacher, is considered to have completed their initial teacher education qualification. Yet all teacher education graduates understand that there is more learning (about teaching) to do. Teacher professional development, and the inherent teacher professional learning, is an important aspect of a teacher's ongoing professionalism. In this paper I draw upon examples of four teacher professional development programs. Key aspects at the basis of the design of effective teacher professional development programs are said to deliver intended outcomes. Discussed also is the importance of context, as a one-size-fits-all design of teacher professional development programs may not suit the different teaching contexts found in Asia and the rest of the world.

## 1. Introduction

There is a general consensus about what makes a good teacher, both among the scholarly academic communities whose energies are focused on research in teacher education (Connell, 1985; Palmer, 1997), and also among the wider population with their folk-wisdoms about good teaching. Scholars in the West have explored good teaching (Loughran, 2010), and much new research has recently appeared on this topic from English teacher-researchers in the Asian region (Stroupe & Kimura, 2011). Teachers who know their subject matter, who care for their students, are organised and well-prepared, and make learning engaging, are generally considered accomplished teachers.

However the role of formalised teacher professional development in helping to create accomplished teachers is also a point of contention. A graduate teacher, also known as a beginning teacher, is considered to have completed their initial teacher education qualification. Yet all teacher education graduates understand that there is more learning (about teaching) to do. Teacher professional development, and the inherent teacher professional learning, is an important aspect of a teacher's ongoing professionalism.

In this paper I draw upon examples of teacher professional development programs where I have been either a participant or designer/presenter. Key aspects of such programs are considered to be at the basis of the design of effective programs and are said to deliver intended outcomes. Discussed also is the importance of context, as a one-size-fits-all design of teacher professional development programs may not suit the different teaching contexts found in Asia and the rest of the world.

## 2. Teacher learning and development

According to Glatthorn (1995, p. 41, cited in Villegas-Reimers, 2003, p. 11), "teacher development is the professional growth a teacher achieves as a result of gaining increased experience and examining his or her teaching systematically." According to Villegas-Reimers (2003, p. 11) teacher professional development is "broader than career development" which relates to teachers moving through their careers.

The traditional "in-service" approach to teacher professional development has been well documented in the scholarly literature (Lieberman, 1995; Villegas-Reimers, 2003). The traditional model has been characterised as the once-only, after-school, no-follow-up option for working with teachers' professionalism, and has been strongly critiqued over the years (Darling-Hammond, 1996). Villegas-Reimers (2003, p. 12) claims that this type of traditional "in-service" style offering was (unbelievably) "usually unrelated to the teacher's work". Darling-Hammond, Wei, Andree, Richardson and Orphanos (2009, p. 9) state that it is: "rigorous research [which] illustrates the shortcomings of the occasional, one-shot workshops that many school systems tend to provide, which generations of teachers have derided".

Coolahan (2002, p. 10) stated:

> *Educational policies of many countries are encouraging greater autonomy for schools, whereby a "bottom-up" approach is being encouraged in devising school plans and school reports. Greater staff collaboration and collegiality are being sought and "Whole School Development" is being encouraged.*


ISBN: 978-602-74576-0-7

In essence, teacher professional development is now being considered as a long-term consideration for a teacher's growth "that includes regular opportunities and experiences planned systematically" (Villegas-Reimers, 2003, p. 12). Teacher professional learning occurs throughout a teacher's career, it is part of the notion of life-long learning, and employers require teachers to return to formalised study and participation in professional development programs for the remainder of their careers.

Nowadays, too, teachers are not so much being "talked at" during professional development sessions, as they might have been in the more traditional in-service programs. Teachers are to be "active learners" (Villegas-Reimers, 2003, p. 13), contributing by completing what the presenter requires, but also feeding in to the flow of the program with their own insights and opinions/reflections.

Professional development for teachers is considered to be context specific (Villegas-Reimers, 2003, p. 13), and occurs in the "district, department, school and professional organization" (Villegas-Reimers, 2003, p. 121). The notion of teacher professional development being a "collaborative process" sits well alongside the notion of a "community of practice", which, according to Wenger (1998), involves "mutual engagement around a joint enterprise… for the creation of knowledge" (Wenger, 1998, p. 214). If the focus is jointly agreed and collaborative, teacher-driven and designed professional development conceptualised from the ground up, for a specific context, means that it can be considered organic, and highly likely to meet teachers' needs. As teachers today are considered to be "reflective practitioners" (Villegas-Reimers, 2003, p. 13), professional development programs need to highlight the importance of professional reflective dialogue.

Darling-Hammond et al. (2009, p. 6) note that "U.S. teachers, unlike many of their colleagues around the world, bear much of the cost of their professional development". A teacher's own contribution not only of funds, but also of time, and other investments in their professional development, is noted in the literature as important for how committed teachers are to participating in programs.

A recent review of pre-service and in-service teacher professional development in Indonesia (Evans, Tate, Navarro & Nicholls, 2009) provides detailed information about (i) how well pre-service courses in Indonesia prepare teachers; (ii) how effective are the training courses and workshops at improving student learning, and (iii) how effective are the professional development workshops such as Kelompok Kerja Guru and the Musyawarah Guru Mata Pelajaran. Although limited in its scope (12 universities in 6 provinces), the indications are that there are indeed "gaps" in what exists for pre-service and in-service teacher professional development, and that in some contexts, such as the situation in Papua, teacher professional development is "lackluster" (Evans et al., 2009, p. 57), including "inadequate or unavailable resources, poorly communicated strategy, actions that are poorly defined, inadequate performance monitoring, uncommitted leadership, and unclear accountabilities for execution" (Evans et al., 2009, p. 45). The "Whole District Approach" is suggested as a best solution for achieving successful teacher professional development programs in many of these Indonesian contexts (Evans et al., 2009, p. 45).

## 3. Teacher professional development programs: Four models considered

Over the span of their professional careers, teachers are (hopefully) able to participate in a number and variety of professional development activities and programs. Activities and programs on offer include professional development:

-with specific aims (information dissemination, skills training, study-related);

-offered in specific modes (face-to-face, online or combination/blended, mentoring/coaching);

-offered in different time frames (short-term, block, or longer-term), with or without follow-up; and

-intended for different audiences (individuals, groups, teams, whole staff, school groups, disciplines and so on).

Career progression for teachers in many schooling systems nowadays includes a mandated component of participation in professional learning: for teachers in full time positions teaching in New South Wales, Australia, government schools, the requirement is 50 hours in a period of five years (New South Wales Government: Education, 2016, para. 7). In the context of New South Wales, the largest public schooling organisation in Australia, the Department of Education (New South Wales Government: Education, 2016) states:

> *The research is clear. There is a strong link between the professional qualities of individual teachers and the learning outcomes of students. High standards of teaching and teacher professionalism are in the best interests of students, of public education and of the teaching profession.*

My reflections for this paper come from both the scholarly literature and my own career-long participation in teacher professional development programs. I have been both a participant in teacher professional development programs, and a program designer/presenter in such programs over a 34 year period in a variety of different Australian and overseas


ISBN: 978-602-74576-0-7

contexts.

Teacher professional development includes any one or combination of formal experiences (Villegas-Reimers, 2003, p. 11) such as workshops, meetings, mentoring, and informal experiences such as "reading professional publications" (Villegas-Reimers, 2003, p. 11). Such formal and informal experiences are either, or a combination of, (i) short, one-time sessions, (ii) self-education/formal study, (iii) longer programs, even block sessions (with or without follow-up), and (iv) activities within a community of practice/professional self-sustainable group. My own involvement with teacher professional development is similar to that of many teachers and teacher educators: (i) as a participant in the early years of a teaching career; (ii) as a participant in a return to formal higher degree study-type professional development; (iii) as a designer/presenter of small, localised professional programs, and as a designer/presenter (and trainer of trainers) of larger, system-funded, professionally-linked programs.

Model examples include:

a. Short, one-time sessions

During my early career, in my first five years of teaching, known as the beginning-teacher period, I was both required by my employer (my school principal on behalf of the Northern Territory Teaching Service), to participate in a variety of whole-staff after-school professional development programs. The focus of this series of (often 1.5 – 2 hour) after-school sessions was anything from behaviour management, to resource creation, to curriculum scoping and planning. I self-elected, as well, to participate in discipline specific (foreign language teacher) professional development in-service workshops, either face-to-face, or via telephone conference to link up the foreign language teachers across the Northern Territory.

More often than not, the focus of both these types of one-time sessions, was current – even urgent. The use was immediate, and often involved the creation of something that could be implemented the following day in class. The following day, the material would be cutting-edge, and engaging for me as the teacher, which in turn probably engaged the students. After one use, however, the excitement might have faded.

The engagement, however, was such that all teachers were active for a time. They only had to invest two hours of their time to potentially make an impact on the next day's teaching. Teachers could add strategies to their teaching repertoire that could be used and re-used for the same or different groups. Ground-up, classroom-based questions could be answered -- for the short-term at least. There was little funding required. There were "take-aways" for most teachers after such short, one-time professional development sessions.

b. Self-education, formal study

After that first five years teaching, a small number of the teachers at my school dared to enrol in a postgraduate coursework degree – not the same programs, but still all postgraduate. Without any particular designs on leadership, but sensing that further academic study might be the correct or expected step in furthering our teaching careers, we enrolled in a Masters degree.

Such an academic scholarly pathway took me away from the classroom-friendly professional development offered by my employer. Certainly I was actively involved in my reading of professional publications, and my academic writing, but it was a totally different active-ness, compared to the school-led in-service workshops I had experienced after graduating. Unfortunately the scholarly readings were not light, fix-its for tomorrow's classes. Rather the scholarly literature and its embedded academic discourse was hugely challenging and not obviously related to what I needed for my work with my students.

It was me who was investing to cover the costs of the postgraduate study myself. My particular study program was distance mode, which, before the World Wide Web's arrival, required me to study with course books and library textbooks – alone. Admittedly there were block residential periods twice a year for 2 years. But life before the connectedness of the internet allowed little opportunity for group study. Maintaining motivation when studying alone was the biggest challenge.

The information exchange in this self-education phase was top-down information flow – the professors and scholarly texts I engaged with provided me with both a theoretical and educational systems-based view of teaching and learning.

c. Longer day/week blocks, no follow-up/Longer day/week blocks, training of trainers, and follow up

Fast-forward to the larger period of my teaching career – the period ten years after completing my undergraduate teacher education degree. By that time I had taken some leadership roles, moved from foreign language teaching in secondary and primary schools, into foreign language teacher education.

Consulting to the local Department of Education Tasmania schooling authority, I helped plan, design, implement and evaluate a teacher


ISBN: 978-602-74576-0-7

professional development program that ran alongside the roll-out of a new foreign-language-learning-in-schools policy. Groups of foreign language teachers worked on language teaching methodology and resource-creation themes in block periods of 1.5 days, with follow up some months later with similar meetings. Teachers could share stories of their progress and trialling of the workshop ideas.

Some years later, as President of the national professional association for foreign language teachers (the Australian Federation of Modern Language Teachers Associations - AFMLTA), I was the national coordinator for the roll-out of a very large (600 language teachers nationally) foreign language teacher professional development program, which also included a "Training of Trainers" component. In this large project (the *Professional Standards Project: Phase 2* – see http://pspl.afmlta.asn.au/), teacher investment comprised their creation of a case study which was later uploaded to the AFMLTA website.

In both the programs (for the Tasmanian Department of Education, and for the Professional Standards Project) communities of foreign language teachers were funded to come meet together for three days, then two further single days. There was an expectation of teachers actively dialoguing the project materials during the classes, then taking the same dialogues back to school, in their wider community of practice. The trainers' and teachers' investment of time was one aspect. A larger issue was the teachers' risk to expose themselves to the rigours of scholarly project work – a very real investment. The single meeting days 3 months and 6 months later gave the project a longitudinal feature – meaning that the funding body, the Commonwealth Government of Australia, funded the project well. Subsequently the project continued to a third phase, *More Leaps* (Morgan, 2015).

d. Activities of a community of practice/professional (self-sustainable) group

A "community of practice", according to Wenger (1998), involves "mutual engagement around a joint enterprise… for the creation of knowledge" (Wenger, 1998, p. 214). For eight years now I have been involved with the Developing Educational Professionals in Southeast Asia (hereafter DEPISA) group, considering DEPISA, like Laws (2014), as a community of practice that has positively impacted a number of educational professionals. They, in turn, have been empowered to develop their own networks of colleagues in wider professional, academic contexts (Laws, Harbon & Wescombe, 2014). There are many such communities of practice in all disciplines in higher education contexts throughout the world. Many of us claim membership of more than one of these communities of practice because our scholarly activity crosses the boundaries of a number of disciplines and sub-disciplines.

Teachers are introduced to these communities of practice in a variety of ways. Some teachers get to know these professional communities through word-of-mouth and recommendations about membership from our colleagues. Others read information about the products of these communities' scholarly activities such as professional learning workshops, seminars, conferences, research and journal publications.

In 2009/2010, the DEPISA community of practice began as a smaller group of teacher education academics. Two Sydney academics organised a 5-nation workshop in Sydney, Australia – in November 2010. At first we were university teacher educators and school teachers. We now more broadly represent professional activity in wider contexts than universities and schools (see Laws, 2014). The group met with a common concern about teacher professional development. Soon this developed to suit a wider group, one concerned with developing all educational professionals. DEPISA's two key annual professional development activities include an annual meeting and an annual monograph publication.

## 4. Discussion: the importance of context

The top-down programs, the bottom-up programs, the formal and the informal: each program has different characteristics and will be successful for teachers, but not successful for all teachers in all contexts.

My own emic experience in teacher professional development programs over a period of more than three decades, both as participant and presenter, shows that hard work by designers, presenters and participants in either top-down or bottom-up models can produce both successful and unsuccessful results. I have even received contrasting evaluative feedback from teachers about the success or otherwise of a program: some have judged a specific program as a success and others proclaimed the same program of little use.

I have taken some of my teacher professional development workshops and conducted them in different contexts in Southeast Asia and North Asia, and luckily they seem to have translated and transferred well to those contexts. Perhaps it has been successful "mediation" which has allowed this to


ISBN: 978-602-74576-0-7

occur – it cannot be the case that all programs transfer well to all other contexts: a certain amount of re-working for context must occur.

The scholarly literature is correct, in my opinion however, when stating teacher professional development works best when:

- teachers are active participants
- teachers seriously invest in the activity
- longitudinal with milestones of follow up
- ground-up questions are answered.

Context matters. What works in one side of town, may not work on the other side. What works in one local, regional or national area might not work in the other. The educational system must invest in comprehensive planning of teacher professional development, including classroom teachers, parents, curriculum officers and even academics on an advisory committee, in order to include as many stakeholder voices as possible.

## 5. Conclusion

Organisers, planners, and funders of teacher professional development activities aim for intended outcomes to be achieved, in whichever model of offering, and wish to see, in teacher evaluative feedback that the aims have been (at least somewhat) met, and that most have enjoyed and appreciated the program. Funders require accountability, not only for the professional development itself, but also hoping to trigger wider impact on teaching quality, evidenced in subsequent student learning.

## 6. References


Connell, R.W. (1985). *Teachers' Work.* Sydney: Allen & Unwin.

Coolahan, J. (2002), *Teacher Education and the Teaching Career in an Era of Lifelong Learning*, OECD Education Working Papers, No. 2, OECD Publishing. http://dx.doi.org/10.1787/226408628504

Darling-Hammond, L. (1996). The quiet revolution rethinking teacher development. *Educational Leadership, 53*, 4-10.

Darling-Hammond, L., Wei, R.C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad.* Stanford, CA: National Staff Development Council.

Evans, D., Tate, S., Navarro, R., & Nicolls, M., (2009). *Teacher Education and Professional Development In Indonesia: A Gap Analysis.* USAID document. Retrieved online 6 May 2016 from: http://pdf.usaid.gov/pdf_docs/PNADS282.pdf

Laws, K. (2014). DEPISA: A community of practice. In K. Laws, L. Harbon & C. Wescombe, (Eds.). *Improving teaching and learning: Perspectives from Australia and Southeast Asia.* (pp. 1 – 8). Sydney: Authors. ISBN 978-0-9923846-1-6

Laws K., Harbon, L. & Wescombe, C. (Eds.). (2014). *Improving teaching and learning: Perspectives from Australia and Southeast Asia.* Sydney: Authors. ISBN 978-0-9923846-1-6

Lieberman, A. (1995). Practices that support teacher development: transforming conceptions of professional learning. *Phi Delta Kappan, 76*, 591-596.

Loughran, J. (2010). *What expert teachers do: Enhancing professional knowledge for classroom practice*. London: Routledge.

Morgan, A.M. (2015). 'There's more than one way to skin a cat': Reflecting on mentoring models in the More Leaps project – with apologies to cats and cat lovers. *Babel, 48* (1), 30 – 38.

New South Wales Government: Education. (2016). *Professional learning.* Retrieved online 3 May, 2016, from: http://www.dec.nsw.gov.au/about-us/careers-centre/school-careers/teaching/your-teaching-career/approved-teachers/information-for-newly-appointed-teachers/ongoing-professional-learning

Palmer, P.J. (1987). *The courage to teach.* San Francisco: Jossey Bass Publishers.

Stroupe, R. & Kimura, K. (2011). (Eds.). *English language teaching practice in Asia: Editors' choice of selected papers from the CamTESOL Conference Series* (2005-2009). Phnom Penh: IELTS.

Villegas-Reimers, E., (2003). *Teacher Professional Development: An International Review of The Literature.* Paris: International Institute for Educational Planning, UNESCO. Retrieved online 6 May 2016, from: http://unesdoc.unesco.org/images/0013/001330/133010e.pdf



ISBN: 978-602-74576-0-7

Wenger, E. (1998). *Communities of practice: Learning, meaning and identity.* Cambridge, UK: Cambridge University Press.

Wenger, E., Trayner, B. & de Laat, M. (2011). *Promoting and assessing value creation in communities and networks: a conceptual framework.* Heerlen, Netherlands: Ruud de Moor Centrum/Open Universiteit.


ISBN: 978-602-74576-0-7

# COURSERA FOR ENGLISH STUDENTS TEACHERS: A FOUNDATION FOR SKILL AND PROFESSIONAL DEVELOPMENT

Husni Mubarok
Universitas Islam Nahdlatul Ulama Jepara
Jepara, Indonesia

**Abstract**

This article was aimed at elaborating the perspective of student teachers of English toward coursera as a foundation of their professional development, and the implications of Coursera to the skills development of English student teachers. Today, the issue of professionalism of teachers becomes an important topic related to the quality of the teacher who becomes a leading actor in the field of education. This is due to the professionalism of teachers is often attributed to three things namely the competence of teachers, teacher certification and teacher professional allowance. Professionalism of a teacher can be seen with the competency of the teacher which includes pedagogic competence, professional competence, social competence, and personal competence. While the students of English education department is an prospective English teacher both primary and secondary level. Therefore, English student teachers need to be equipped with the abilities for professional development. One of the efforts to develop professional student teachers of English is to follow the online courses that are offered on the internet massively. One of the course is coursera. Coursera is one of massive open online courses offered in the internet. It is free of charge and everyone could access and follow the course. By following this course, students teachers could develop both their English skills and professional development. This research was conducted by using survey case study. The subjects of the research were students of English education department which will be prospective English teachers. The number of subject in this study was 67 students, comprising 17 students had been taught English in both formal institutions and non-formal institutions, *madrasah*, courses or private English, 15 students working in various fields, and the rest was not working or teaching in various institutions. They were the fifth semester students of English education department. Data collection techniques used in this study were questionnaires and interviews. Questionnaires were used to determine the students' opinion about the online courses; coursera as the foundation of the development of the prospective teacher professionalism. Interview were used to clarify the students about professional development through online courses; coursera. The result showed that students could increased their English skills which included listening, reading, and writing. Besides that, the result showed that coursera as teaching professional development medium could influence students teachers in the aspect of theory and nature of teaching and learning process, the following-up, and the future plan that would be implemented. Coursera was good as a foundation of the development of English skills and TPD because it contained some characteristics such as relevancy, clearance, clarity, understandable, and flexible to be followed.

**Keywords**: Coursera, professional development, English skills

## 1. Background of the Study

A teacher is required to be able to implement the learning process as well as possible. But the phenomenon that exists today is when becoming a teacher, then they will forget that they are supposed to carry out the demands that professional development. Teachers assume that if they have become teachers, they do not need to develop their professional abilities. This is a wrong assumption that should be abandoned by the teachers. Teachers are asked to teach in increasingly multicultural classrooms; to place greater emphasis on integrating students with special learning needs in their classrooms; to make more effective use of information and communication technologies for teaching; to engage more in planning within evaluative and accountability frameworks; and to do more to involve parents in schools (Talis, 2009:5).

The term profession has become a very popular term in the application of daily tasks. Its meaning is related to the ideal values related to someone in the capacity to do his job. Once very close to the idea, but the term is not easily realized. One of the difficulties to realize the daily action are because of lack of performance indicators as a translation of theoretical concepts into practical action. With the problems that schools often cannot discern whether someone has acted professionally so that teachers can do a good job or not. Discussion about the profession often becomes rhetoric in every meeting or upgrading so results are measured and observed clearly. Therefore, professional development is an activity to improve the quality of

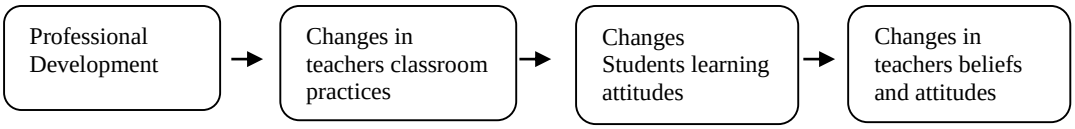

ISBN: 978-602-74576-0-7

teacher as an educator that will affect their work as teacher in the learning process. Professional development should focus on instructional strategies that are proven to impact student performance (Harwell, 2003:4).

Professional development cannot succeed without strong content. The content of the professional development that is associated with high-performing schools is always focused and serves a well-planned long-term strategy. To be effective, professional development should be based on curricular and instructional strategies that have a high probability of affecting student learning—and, just as important, students' ability to learn (Harwell, 2003:10). In the field of profession, a professional teacher serves to teach, educate, train and conduct research education issues. In the humanitarian field, professional teacher serves as a substitute for parents, especially in the area of increasing the intellectual abilities of learners. Professional teachers become facilitators to help students transform their potential learners into ability and skills and developing useful for humanity. Professional development becomes one of the important issues in the education system in Indonesia. This is because, if the teacher is said professional when he/she has certificate. If they are certified, they are eligible for certification benefits that should be used for professional development. Teachers are responsible for long-term career development under the auspices of the head of the school where he/she taught. Continuing Professional development (CPD) as an increase in professional knowledge and professional skills improvement is done continuously throughout the life of a teacher. In addition, professional development should (1) deepen teachers' knowledge of the subjects being taught; (2) sharpen teaching skills in the classroom; (3) keep up with developments in the individual fields, and in education generally; (4) generate and contribute new knowledge to the profession; and (5) increase the ability to monitor students' work, in order to provide constructive feedback to students and appropriately redirect teaching (Harwell, 2003:4).

Professional development programs are systematic and concerted effort to bring about innovation and changes in classroom practices of teachers, their attitudes and beliefs, and learning outcomes of students (Guskey, 2002:382). Professional development is teacher competence development carried out according to the needs, carried out in stages, and continuing to improve teachers' professional skills. Professional capability is one of the various capabilities that must be owned by the teachers. Teacher competence as referred to in article 8 includes pedagogical competence, personal competence, social competence, and professional competence acquired through professional education (Law, 2005). Guskey (2002:382) drew a diagram of professional development as elaborated below.

Figure 1. Diagram of Professional Development




Based on the definition above, it could be drawn a conclusion that professional development program should change teachers' classroom activities. The impact of changes could be implemented to enhancing learning outcomes. Then, the result would be changes in teachers beliefs and attitudes.

Professional competence is the ability in mastering the learning material both broadly and deeply, which includes mastery of curriculum subjects at school and overshadow the substance of scientific material, as well as mastery of the structure and methodology of science. Besides, it is no less important is the professional development in a sustainable manner by taking action reflective and utilize information and communication technologies to communicate and develop the self. The relationship between several professional-development activities and specific teaching practices related to early-reading instruction found a relationship between what teachers learned and how they later taught (Harris & Sass, 2011:97).

According to the research conducted by Sarah, (2011:18), high-quality professional-learning opportunities for teachers contain the following five characteristics; aligns with school goals, state and district standards and assessments, and other professional-learning activities, focuses


ISBN: 978-602-74576-0-7

on core content and modeling of teaching strategies for the content, includes opportunities for active learning of new teaching strategies, provides the chance for teachers to collaborate, and includes follow-up and continuous feedback. There are certain features of professional-development programs that lead to improved teaching and learning, including coaching and mentoring, collaboration among colleagues, observing and discussing classroom practice, and having professional development of sufficient duration that teachers actually have the time to learn and improve (DeMonte, 2013:20).

Students from English education department are a prospective teacher should be able to equip themselves with professional skills and English skills and must be able to develop their skills both teaching skills and ability to speak English well which include listening, speaking, reading, and writing. The important of English skills, has been proven, (Griffiths, 2004:1) which highlights the importance of reading for the development of language skills and questions the effectiveness of interactive classroom exercises.

One effort to increase professionalism and their ability is by following the online courses that are offered on the internet. Coursera is one of MOOCs (massive open online courses) which is mostly chosen by internet users in participating in free online courses. The characteristics of MOOCs are free of charge, no limited participants, and openness. MOOCs stand for Massive Open Online Courses. So far, MOOCs can be characterized as follows: they are online courses, with no formal entry requirement, no participation limit, free of charge, and do not earn credits (Gaebel, 2013:3). Online teaching and learning based on constructivist models by explicating four theories for thinking about online learning: cognitive constructivism, constructionism, social constructivism, and situated learning/distributed cognition (Kennedy, 2014:3).

The term listening is used in language teaching to refer to a complex process that allows us to understand spoken language. Listening, the most used language skill, is often used in conjunction with other skills of speaking, reading, and writing. Listening is not only a skill area in language performance, but is also a critical means of acquiring second language (L2) (Carter & Nunan, 2001:7). Listening becomes a very important skill to be mastered and improved by students because it is a first bridge by students to learn a language.

Reading comprehension is an active reading to get information and to create meaning from reading materials by integrating what to be end into what has already known (Guthrie, Wigfiels, & Perencevich, 2004:227). Reading, for some, means words, and success is judge by the number of words which can be read out of context, for other, successful reading is judge from the earliest levels, even by beginner readers, in term of the ability to make sense of continuous text, beyond word level (Carter & Nunan, 2001:23). It means that reading is not only a skill to read a text, but also it is a practice, process and product which is done by students. Therefore, in reading students should know and understand well the reading strategies in which they could be a good reader. They should implement scanning, skimming, inferences, and deciding a topic.

Writing is a personal act in which writers take ideas or prompt and transform them into self-initiated topics (O' Malley & Pierce, 1996:136). Second language (L2) writing was not viewed as a language skill to be taught to learners. Instead, it was used as a support skill in language learning to, for example practice handwriting, write answer to grammar and reading exercises, and write dictation (Carter & Nunan, 2001:28). When students write, they should have formulated the goal of their writing. It is entertaining, persuading, or giving information. They should also arrange the plan in their writing. The goal and plan are essential for students if they want their writing is readable by readers. Therefore, writing is not only an activity of recording a language into written form, but also it is an activity which needs skills to develop the idea, reformulate knowledge, and arrange word into good writing so that it can achieve the purpose of writing. Students do not only write but also they express their idea which can be understood by readers.

By joining one of courses in coursers, students teachers could not only increase their professional development, but also their skills in English. Listening skills can be obtained through listening to the explanation of the professor via video presentation, speaking skills can be acquired if the students to discuss the materials and assignments / quizzes to their colleagues who are both taking the same course, students obtained reading skills by reading instructions and the online course syllabus that offered before students decide


ISBN: 978-602-74576-0-7

to follow the online courses, and writing skills acquired through the settlement of tasks / quizzes are given at the end of the video presenting (Mubarok, 2015:224).

Coursera collaborates with various universities in the world to provide free classes on the internet by adopting the concept of Massive Open Online Courses where a class can be accessed by participants in mass amount, up to tens of thousands of participants or more. Although most of the material Coursera is not paid, some premium services are also offered such as verification of the identity of participants, certified exams, and so forth.

Coursera are online courses available on the internet and was followed by many users of various backgrounds. Coursera provides access for users to get a good quality education from various educational institutions in the world. Coursera cooperate with a variety of popular universities in the world and a variety of educational institutions that have good quality. This is because one of the missions of coursera is to provide universal access to the world's best education. Many educational institutions in various countries that have joined the coursera, such as the University of Edinburgh, University of Manchester (UK), Stanford University, University of Michigan, Arizona State University (United States), and many more. Until now there are 16,024,274 learners, 1,474 courses and 136 partners.

Online learning plays a significant role in a lifelong education. In fact, a recent report by the U.S. Department of Education found that "classes with online learning (whether taught completely online or blended) on average produce stronger student learning outcomes than do classes with solely face-to-face instruction." Based on an approach developed by educational psychologist Benjamin Bloom, Mastery Learning helps learners fully understand a topic before moving onto a more advanced topic. Coursera typically give immediate feedback on a concept a learner did not understand. In many cases, Coursera provides randomized versions of the assignment so a learner can re-study and re-attempt until they master it. In many courses, the most meaningful assignments cannot be easily graded by a computer. That's why Coursera use peer assessments, where learners can evaluate and provide feedback on each other's work. This technique has been shown in many studies to result in accurate feedback for the learner and a valuable learning experience for the grader. Many of Coursera partner institutions are using online platform to provide their on-campus students with an improved learning experience. This blended model of learning has shown in studies to increase student engagement, attendance and performance (Coursera 2015).

## 2. Method

The method of this study was descriptive qualitative research. The subjects of the research were 67 students of English education department of Unisnu Jepara. They were students teachers of English in school; either primary or secondary school. The subject was comprised into 17 students had been taught English in both formal institutions and non-formal institutions, madrasah, courses or private English, 15 students working in various fields, and the rest was not working or teaching in various institutions. They were the fifth semester students of English education department. Data collection techniques used in this study were questionnaires and interviews. Questionnaires were used to determine the students' opinion about the online courses; coursera as the foundation of the development of the prospective teacher professionalism and a basis of their English skills enhancement. The questionnaire was comprised 10 statements represented the enhancement of English skills; listening, reading, and writing, and 15 statements represented their professional development. Interview are used to clarify the students about professional development through online courses; coursera. There were 5 questions which had been asked to the students. The questions in interview strengthened the questionnaire given before and covered things which was not asked in the questionnaire.

The topics which were chosen by students were

1) K-12 Blended Learning
2) Crafting an effective writer: tools of the trade
3) English composition 1
4) Assessment and teaching 21st century skills
5) Learning to teach online
6) Accountable talk: conversation that works
7) Blended learning: personalizing education for students
8) Writing for readers: opening treasure chest
9) Creativity, innovation, and change
10) First year teaching (elementary grade) – Success from the start
11) First year teaching (secondary grade) – Success from the start


ISBN: 978-602-74576-0-7

12) Student thinking at the core
13) Teaching character and creating positive classroom

## 3. Discussion

This study focused on two kinds of improvement. The first improvement was English skills of English students teachers. The second improvement was the development of professional development of English students teachers.

### 3.1. English Skills Development

By following the online courses offered by coursera, students' English proficiency increased. This increasing was because they had more time in the learning process via online that did not rely on face-to-face learning. This was proved by more than 25% of the students responding to the increasing of their English language skills. The improvement of their English proficiency was followed by the increasing of other skills; namely listening, reading and writing.

Table 1. English Skills Development

| Indicators | Options | | |
|---|---|---|---|
| | Disagree | Agree | Strongly Agree |
| English skills | 15.63% | 25% | 21.88% |
| **Listening** | 12.50% | 43.75% | 6.25% |
| Predicting from the context | 25% | 28.13% | 6.25% |
| Do not translate word-by-word | 21.88% | 28.13% | 9.38% |
| **Reading** | 21.88% | 28.13% | 12.50% |
| Reading strategies; skimming | 15.63% | 28.13% | 12.50% |
| Predicting from the context | 12.50% | 43.75% | 6.25% |
| **Writing** | 25% | 37.50% | 3.13% |
| Writing process | 25% | 25% | 9.38% |

Students' listening ability increased after joining coursera online course because they could watch and listen to the video contained in coursera. It was also proved by the total of percentage of students who chose option 'agree' with the percentage of 43.75%. Students were also able to predict the context of the conversation, topic, and the material presented by the speaker. Predicting a text from the context was also important for students to know the context of the material. This students' ability to predict was improved by eliminating of translating word-by-word. It meant that students did not translate word-by-word when they could not know the meaning of the word. 28.13% of students chose option 'agree' which indicated that they could predict the context. 28.13% of students chose option 'agree' which indicated that students did not translate word-by-word.

Besides listening skills, students' reading ability also increased which was showed by 28.13% of students chose option 'agree'. It meant that the online course of coursera gave positive effect for the enhancement of reading skill. This was due to the students prior to attending one of the classes offered online, they should read the description of the selected online classes, understand the learning objectives, syllabus, course outline, plan assignments and join discussion forums on every week. The ability of reading strategies was also increasing rapidly both in discussion forums and reading the syllabus. 28.13% of students chose option 'agree' which indicated that they could implement reading strategies such as skimming, scanning, and others. 43.75% of students chose option 'agree' which indicated that students could predict text form the context.

Students' writing skills also increased after the course online coursera. It was showed that 37.50% of students chose option 'agree' which indicated that coursera online course gave positive effect on students' writing skill. The Improvement of the students ability was obtained by following the process of writing well that begun with determining the topic sentence, developing supporting sentence, and making a conclusion sentence. 25% of students chose option 'agree' which indicated that students could know the process of good writing. The writing was done by students by participating in discussion forum which was also joined by other users from the different country.

From all the questionnaires conducted, it was found that most of students gave their


ISBN: 978-602-74576-0-7

responses that coursera online course had positive effect in their learning as English students teachers.

### 3.2. Professional Development

#### 3.2.1. Respondents Perspective

As indicated in table 2 below, it was found that students chose of one of the online course was the relevancy between the material and the education background of the students. They chose the class in which was able to increase their knowledge and competency in professional development. The relevancy could be in the form of material, content, professional needs, and learning time. All the materials and content, were chosen by students, discussed the theme of education either in learning theory, teaching practices, or learning methods/strategies. When teachers are given the opportunity, via high-quality professional development, to learn new strategies for teaching to rigorous. We cannot expect students to change what they standards, they report changing their do if we are content for teachers to continue teaching in the classroom (Harwell, 2003:8). Students teachers' opportunities in teaching professional development would become basic foundation for them to teach in classroom setting. This was used by them after they tough in real classroom teaching.

Course description in the professional development of students was important. This was because students took one online class because online classes were offered via internet were in line with the background of the students. Clarity in the course description would influence the selection of students to select classes. This was shown in table 2 of the student's perspective. Another finding showed that learning objective was offered in online class was clear. Students could grasp easily the learning outcome after joining the class.

The content, materials, and time allotment offered in coursera online class were relevant with learning outcome, well organized, and sufficient. Teaching professional development program could help English students teachers enhance their practices in teaching and learning process in the classroom. By joining teaching professional development offered by courser online course, the English students teachers were tailored specific needs and flexible in time learning. They did not need more time in class teaching because they could access the material anytime and everywhere they wanted. By joining this teaching professional development, English students teachers could master the medium of learning, the development of tools or media competency-based learning both locally and modern, as well as ICT -based. They could master a laptop computer and had its own in order to improve the quality of learning.

Table 2. Respondents Perspective

| Indicators | Agree |
|---|---|
| Online class chosen – relevant | 34.4% |
| Course description – understandable | 48.2% |
| Learning objective – clear | 38.2% |
| Content – relevant with LO | 34.4% |
| Materials – well organized | 31.4% |
| Time allotment – sufficient | 38.4% |

Based on the table 2 above, it was known that the choosing of coursera online course were based on the clearance, clarity, relevancy, and well-organized of course description, learning objective, contents and materials. Besides that, the sufficient of time was also important in teaching professional development.

#### 3.2.2. English Students Teachers Professional Development

Based on table 2 above, it showed that by joining and participating in teaching professional development offered by coursera online course, students got meaningful discussion, built the foundation of teaching and learning, followed up the teaching professional development, understood teaching theory and practice, and improved their teaching skills.


ISBN: 978-602-74576-0-7

Table 2. Respondents Perspective

| Indicators | Agree |
|---|---|
| Discussion forum | 32.4% |
| Teaching and learning foundation | 36.6% |
| Following up | 30.2% |
| Teaching theory and practice | 33.8% |
| Improving teaching skills | 40.6% |

Joining discussion forum offered by students teachers could enhance students participation in scientific discussion. This was done by sharing and transferring information between coursera online course users around the world. There would be interaction between users virtually dealing the topic discussed. By following and joining discussion forums, students got new things about the theories and the learning process that they had never learned before. This was proved by the results of a high percentage in accordance with the above table. Therefore, this could be a means by students teachers to enhance the professional development.

Teaching professional development could strengthen the students teachers' entity and help their professional development. This was because students did not only learn about the theories presented by the speakers in the video but was also accompanied by the appearance or picture directly presented in concrete examples on video. In addition, the practice on the topic is also presented in the material virtually.

Coursera as a means to improve teaching professional development could arouse students teachers to improve learning materials, manage classes, arrange the classroom for teaching and create a climate of harmonious teaching so that teaching and learning take place optimally. Students' teachers appreciated the foundations of education in which the cornerstone of education was a science underlying the principles and policies of education both in school and outside of school. Students' teachers were able to manage teaching and learning interactions. In teaching teachers were required ably including the use of teaching tools, teaching media and teaching resources to enable students to study hard for him.

Based on the table above, students' teachers valued coursera online course as teaching professional development. Students were trained to learn within a community of learners. It was to know the current issues in teachers professional development. So there would be a follow-up for students in the form of direct action. Moreover, students were prospective English teachers. Their English skill also improved by participating in teaching professional development through coursera online course. This was caused students teachers made communication and interaction with other users used the target language; English. They did not use their native language; Indonesia, but they used English to response and share ideas in discussion forum. When teachers understand the role of literacy in the home language, they could then refrain from judging student mistakes as indications of lack of textual understanding or literacy skills, especially if ELLs' lexicon in English and in-depth knowledge of word meaning are not rich (Turkan et al., 2012:11).

### 3.2.1. Future Plan

Based on the study finding above, it was found that teaching professional development gave positive impact to students teachers on their future professional teaching practices. If the goal of education reform was to improve student performance through changes in teaching practices, and if changes in teaching practices are likely to result only from high-quality professional development (Harwell, 2003:11). This could be done by implementing the theory or nature of learning from the video. They could reformulate the information got from the teaching professional teaching via online.


ISBN: 978-602-74576-0-7

Table 3. Future Plan

| Indicators | Agree Option |
|---|---|
| Future teaching practice | 28.8% |
| Sharing new information | 32.8% |
| Future students achievement | 30% |

Besides that, students teachers could share new information to their friend via face-to-face not in virtual media. Sharing information became the basic foundation of teaching professional development. In this case, there was an interaction among prospective English teachers.

## 4. Conclusion

Based on the study results above, it could be concluded that there were many tools in the teaching professional development. One way was by following the massive open online courses that were offered on the Internet. Coursera was one of as massive open online courses could be selected for teaching professional development. Coursera was widely available massively in the internet that could be accessed by the users according to educational background, interests, and needs. By implementing MOOCs as a foundation for the development of English language skills and teaching professional development, students could gain a lot of things. Their English skills improved after follow coursera. This increase occurred on listening skills by following the material submitted by the speakers, reading the syllabus, course description and writing assignments and providing feedback on the discussion forum. In addition, teaching professional development of students teachers also did not only increase in theory, but students were also able to determine the procedure for its implementation (practice). Teaching professional development was also capable of changing the feel of academic students where they also followed up on what they had obtained after following the TPD at Coursera. Following-up of the application was real when they would become an educator in the future.

## References


Carter, R. & Nunan, D., 2001. *Teaching English to Speakers of Other Languages.*, Cambridge: Cambridge University Press.

Coursera, 2015. Coursera. Available at: https://www.coursera.org/about/.

DeMonte, J., 2013. *High-Quality Professional Development for Teachers High-Quality Professional Development for Teachers*, New York: Center for American Progress.

Gaebel, M., 2013. MOOCs Massive Open Online Courses. *EUA Occasional Papers*, Januari, pp.1 – 18.

Griffiths, C., 2004. Studying in English : Language Skills Development by Research Questions. *Occasional Paper*, October 20(5), pp.1–13.

Guskey, T.R., 2002. Professional Development and Teacher Change. *Teachers and Teaching; Theory and Practice,*, 8(2), pp.381 – 391.

Guthrie, T., Wigfiels, A. & Perencevich, K.C., 2004. *Scaffolding for Motivation and Engagement Reading*, New Jersey: Lawrence Erlbaum Associates Inc.

Harris, D. & Sass, T., 2011. Teacher training, teacher Quality, and Student Achievement. *Journal of Public Economics*, 95(2).

Harwell, S.H., 2003. *Teacher Professional Development : It ' s Not an Event , It ' s a Process* First., Texas: CORD.

Kennedy, J., 2014. Characteristics of Massive Open Online Courses (MOOCs): *Journal of Interactive Online Learning*, 13(1), pp.1–16.

Law, 2005. *Law No. 14 Year 2005 on Teachers and Lecturers, in article 10 paragraph (1)*,

Mubarok, H., 2015. Massive Open Online Course as an Alternative Strategy in Learning English. *AECon Journal Proceeding*, 1, pp.219–226.

O' Malley, J.M. & Pierce, L. V., 1996. *Authentic Assessment for English Language Learners. Practical Approaches for Teachers*, Virginia: Addison-Wesley Publishing Company.

Sarah, A., 2011. High-Quality Professional Development for All teachers: Effectively Allocating Resources. In Washington: National Comprehensive Center for teacher Quality.

Talis, 2009. *The Professional Development of Teachers*, New York: DEDC.

Turkan, S., Bicknell, J. & Croft, A., 2012. *Effective Practices for Developing Literacy Skills of English Language Learners in the English Language Arts Classroom* First., New Jersey: Princeton.



ISBN: 978-602-74576-0-7

# THE USE OF DIGITAL VIDEO PROJECT AND ITS ASSESSMENT

NONI AGUSTINA
*Primary Teacher Education Department, Esa Unggul University, Arjuna Utara Street No.9 West Jakarta, Indonesia*

Abstract

This study aims to explore and describe the use of digital video in learning process and its assessment. Students' speaking skill that is recorded will be assessed using the rubric. Teaching and learning process involve the assessment. Assessing speaking skill requires much time. Speaking is different from the other skills. It cannot be assessed by one right answer. Students' answers can be various. They use many kinds of expressions or phrases. This study employs fifty college students from different majors in the classroom. It is impossible to assess one by one student in one time. Therefore digital video made by students enables to be conducted. The study uses content analysis method with qualitative approach. The data are gathered from the analysis of students' speaking rubrics and open-ended questionnaire. Speaking rubrics undertaken are adopted and adapted from some linguists' rubrics. The finding of this study shows that students can explore more their speaking skill by concerning on their comprehensibility, fluency, pronunciation, and vocabulary. The implication of the study is students learn to speak up and express their idea by using the digital video they make. This study is also beneficial for the teachers or lecturers to implement digital video in the class as one of learning strategy.

## 1. Introduction

In twenty-first century, the information and communication technology grow rapidly almost in all aspects, including education field. It can be seen from the use of technology in the classroom nowadays (Shrosbree, 2008: 75). The use of technology affects the way of teaching and learning (Nikitina, 2009:166; Aksel and Kahraman, 2014:319). It is one of innovative ways in undertaking teaching and learning process (Koc, 2010:98). There is a shift learning process from traditional to modern ways. Moreover, applying technology gives some benefit in teaching and learning process. The technology can be used to support learning process. It also can be used to reach educational objectives (Reinders and White, 2001cited in Aksel and Kahraman, 2014:319).

One of technology that can be used in language learning is digital video. The use of video is popular in education recently because it can be accessed easily, does not need high cost, and is user-friendly (Masats and Dooly, 2011:1152). The digital video gives good impact for the students. Their language skills especially speaking and listening have an improvement. They enjoy their project because they can practice outside the formal context and learn to work with their peers as well make the video creatively (Aksel and Kahraman, 2014: 323). Hafner and Miller (2011:75) find that students also have high motivation and new challenging to make the video. Even though making video is new for them, they are excited to try hard to learn the technology and are satisfied to do it. Nikita (2009:168) adds that making the video can involve the students taking actively and improve students' confidence, autonomy, and communicative skill.

Integrating the technology in language classroom is beneficial; therefore it is possible to answer the problems faced by the researcher. The problems are teaching Business English course with big size class. It is an impediment to be solved. The preliminary class observation in Business English class was undergone when the students introduced themselves in front of the class; however the time was not enough to finish the activity. It occurred because it had forty-seven students. Ehrenberg, et.al. (2001:1) reveals that the class size influences teaching and learning process. They describe the class size as the number of students in the classroom. The class size contributes to the way of teachers. Teachers will consider the time allocation in teaching, choose the best learning strategies will be implemented to the class, and how much attention is given to the students. The smaller class size, the more exposure teaching and learning activities in the class and more focus attention is given to the students.

Even though Business English course has big size class, the goal of its course must be reached. One of the goals is to engage students to have a good communication skill. The good communication skill is represented by having English speaking skill. To overcome the problem and achieve the learning goal, it requires the replication study conducted.

The aim of the study is to describe and explore deeply the use of digital video project and its

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

assessment in Business English course in Esa Unggul University. The research questions for this study are:

1. How is the use of digital video project in learning process?
2. How is the assessment of digital video project in learning process?

## 2. Literature Review

### 2.1. *Digital video project*

Koc (2010:98) describes digital video consisting graph and audio as well non-verbal expressions. Digital video also provides opportunity for students to manipulate and share their video data.

Digital video project gives some advantages. It can promote autonomous learning and emphasize on student-centered learning. Therefore, the students are asked to make a video. The digital video project encourages the students to learn technology and practice their English. They also work in a team so they divide and share the job. Each member of group is aware to their role and they work collaboratively. They think together to find out the content of the video and strive to make good sentences to make appropriate English script. They also have opportunity to reflect their digital video by looking at their work result and think that they have an authentic experience in making that project (Hafner and Miller, 2011:78-82). Nikita (2009:168-174) expresses that the authentic experience gives the meaningful learning to the students because they can link what they learn with the real context. It can make them more fun, confident, and interact each other in one team.

Smaldino et.al. (2008:404-418) reveal that the use of digital video can facilitate all aspects of students' learning. The aspects are cognitive, affective, psychomotor and interpersonal. Moreover, assigning students to make a video can build their technology skill, develop their creativity, and gain their writing skill to make a script.

There are three types of video based on its purposes. They are assessment video, teacher-made video, and student-made video (Shrosbree, 2008:77). The assessment video is used to assess students' performance. Teacher-made video is created to give the learning model for the students while student-made video is produced by students to demonstrate their performance or work.

Shrosbree (2008:80-82) explains that making the digital video project is easy and simple. There are some steps to make the digital video as follows:

1. Capturing the video
   Take the video by using camera or hand phone camera
2. Editing the video
   Windows movie maker is one of application that can be used to edit the video.
3. Distributing the video
   After editing the video, it can be saved or stored in computer hard drive, CD-ROM, flash memory or internet by uploading it.

### 2.2. *Assessment*

Assessment has close relationship with teaching and learning. Those components cannot be separated (Eggen dan Kauchak, 2007:476). Teachers undertake teaching and learning process then assess students' activities. Reynold, et al.(2009:2) argue that teachers spend a third of their professional time to assess students.

Reynold et.al (2009:248) and Brown (2007:462) divide the assessment into two, traditional and alternative assessment. Traditional assessment refers to the standardized test or paper-pencil based test. Alternative assessment has various forms such as performance, portfolio, conference, journal, and so on.

Lombardi (2008:6) identifies the differences between traditional and alternative assessment. The traditional assessment emphasizes on cognitive development and memorization route and product oriented. On the other hand, alternative assessment focuses on interactive and various performances, skill development related to the real life context and meaningful learning and give the opportunity to the students to have critical thinking and process oriented.

Making a digital video is one of project-based learning. Shrosbree (2008:75) reveals that the digital video is used to record and assess students' project such as speaking performance. Klein et al. (2009:17) proposes rubric to assess students' performance.

### 2.3. *Speaking skill assessment*

Speaking skill can be assessed by employing rubric (Luoma, 2004: 52-82). Wolf and Stevens (2007:5-9) explain the components of the rubric. The rubric consists of performance criteria, performance level, and performance descriptions. A performance criterion refers to expected outcomes. Performance level can be varying. It depends on the purpose of the assessment. The examples of performance level are below proficient, proficient, and beyond


ISBN: 978-602-74576-0-7

proficient. Performance description demonstrates clear and detail information about performance criteria.

Some linguists describe some speaking rubric with various performance criteria, performance level, and performance descriptions. Wolf and Stevens (2007:9) use delivery, content, language, and physicality as the performance criteria. It can be seen from the table below:

Table 1. Speaking rubric (Wolf and Stevens)

| | Below proficient | Proficient | Beyond proficient |
|---|---|---|---|
| Delivery | Audience is hard to hear. | Audience is easy to hear | Audience engages clearly |
| Content | The content is not relevant to the topic. | The content is relevant to the topic. | The content is comprehensive and relevant to the topic. |
| Language | Vocabulary is not appropriate and speech is not clear. | Vocabulary is appropriate and speech is clear. | Vocabulary is rich and appropriate. Speech is clear with careful pronunciation |
| Physicality | Little eye contact to audience | Some eye contact to audience | Varied and attractive eye contact to audience |

Ur (2012:180) makes the criteria for speaking rubric encompassing six performance criteria. The speaking rubrics as follows:

Table 2. Speaking rubric (Ur)

| | |
|---|---|
| 1 | is not able to speak |
| 2 | is able to respond with single words and is not understandable in conveying the message |
| 3 | is able to respond with short sentence and often hard to understand the message |
| 4 | is able to use longer sentences/longer responses but limited messages |
| 5 | is able to use longer sentences/responses with clear messages and sometimes has hesitation |
| 6 | is able to speak fluently and clearly |

Fairfax County Public Schools classifies rubric for speaking skill into six criteria. They are task completion, comprehensibility, fluency, pronunciation, and vocabulary and language control. Each of them has some performance description and level.

According to Alderson (1991) cited in Luoma (2004:60), each rubric is different because it depends on the purpose and audience target. Therefore in this study, speaking rubric is adopted and adapted from those criteria above. It consists of comprehensibility, fluency, pronunciation, and vocabulary as follows:

Table 3. Speaking rubric

| Criteria | Level Performance | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | 4 |
| Comprehensi-bility | Reponses are hard to be understood by the listener | Responses are understandable but some of them are hard to be interpreted by the listener. | Listener pauses two or three times to understand the responses | Responses are understood by the listener smoothly (without pausing) |
| Fluency | has lot of hesitation and stopping as well incomplete thoughts. She or he | has frequent pause and hesitation. | almost completes all thoughts but has some pause and hesitation. | speaks fluently and effortlessly. |


ISBN: 978-602-74576-0-7

| | | | | |
|---|---|---|---|---|
| | pauses after a short response. | | | |
| Pronunciation | has a lot of phonemic errors | has frequent phonemic errors | has some phonemic errors | has less phonemic errors |
| Vocabulary | uses lacks of variety of vocabulary and expressions, frequently repeats words or expressions, and responds briefly (single word responses) and inappropriate vocabulary | uses minimal variety of vocabulary and expression, some repetition of words and expression and some inappropriate vocabulary. | uses adequate of vocabulary and expression. Most vocabulary is appropriate. | uses rich variety of vocabulary and expressions and excellent vocabulary. |

## 3. Research Methodology

This study employs qualitative approach and content analysis as a research method. Neoundroft (2002: 26-33) argues that the content analysis is applicable for all contexts. It is applied for many disciplines such as psychology, social sciences, politics, journalism, communication, and so on. It can be applied in analyzing the message referring to scientific methodology.

### 3.1. *Setting and Participants*

The study was conducted in Business English class at Esa Unggul University. It is a compulsory course that must be taken by all students from all faculties in that university. The data source is college students in Business English class consisting of 17 males and 33 females. The data consists of the speaking rubrics and questionnaire data.

### 3.2 *Data collection procedure*

According to Cresswell (2008:220), collecting data meant gathering the information to address the research questions. Some steps to collect the data are as follows:

1. Student-made videos are transcribed and assessed into speaking rubrics in order to get students' speaking score. Those speaking rubrics are analyzed by looking at the speaking criteria such as fluency, pronunciation, and vocabulary.
2. Questionnaire sheets
   Sugiyono (2013:230) revealed that questionnaire is the instrument which the respondents
   Questionnaire consisted of open-ended questions. The open-ended questions provide the opportunity to the respondents to answer the questions without the constraint. They can express their feeling, opinion, or perception (Kuncoro, 2003:156).

This study employed more than one instruments to collect the data. They were speaking rubric and questionnaire sheet. This collection data is called triangulation. Triangulation is the process to collect the data by applying the multiple sources. It aims to build the accurate and credible data. (Sugiyono, 2013:397-399; Cresswell, 2008:266).

### 3.3 *Data analysis and interpretation procedure*

After collecting data, the analysis and interpretation data are conducted (Cresswell, 2008:244). Sugiono (2013:405-412) presents some procedures in analyzing the data consisting of data reduction, data display and draw the conclusion. Data reduction means taking the important and necessary data. Data display refers to the presentation of data in many forms such as table, graph, chart, and so on. The analysis and interpretation data of this study were as follows:

1. Speaking rubric and questionnaire sheet were used as analysis data.
2. The data were reduced
3. Those data were displayed in table and short description
4. The data were interpreted and concluded

## 4. Research Finding and Discussion

Students-made video showed their speaking skill. Their speaking skill was assessed by using speaking rubric consisting of comprehensibility, fluency, pronunciation, and vocabulary. Each of those performance criteria had different levels. They were represented by number 1 (poor), 2 (fair), 3 (good), and 4 (excellent).


ISBN: 978-602-74576-0-7

Based on the data, students' speaking performance were mostly in good and excellent level. It can be seen from the table as follows:

Table 4. Speaking rubric of student-made video

| Level | Comprehensibility | Fluency | Pronunciation | Vocabulary |
|---|---|---|---|---|
| 1 (poor) | 0% | 0 % | 4 % | 0 % |
| 2 (fair) | 14% | 12 % | 18 % | 16 % |
| 3 (good) | 24% | 70 % | 24 % | 82 % |
| 4 (excellent) | 62% | 18 % | 54 % | 2 % |

Comprehensibility was measured from the responses that were understood by the listener. 62% the responses were understood by the listener. 24% responses were required time to understand. 14% were hard to be interpreted and understood because their voice is low and not clear as well they used inappropriate vocabulary that was hard to catch or guess the meaning.

Fluency referred to how the students deliver the message smoothly and effortlessly without pause or hesitation. Mostly their fluency was in good level. It is 70%. Only 18% spoke fluently and the rest was 12 % in fair level. It was found that some of the students read the text when they had some interview.

The result showed that two students (4%) had a lot of phonemic error. It could be found from student A that had mistake in pronouncing some words such as *graduated, university, management, as, both, improve, fresh, graduate, first, apply, appropriate, well, due to, strength, learn, weakness, and excuse*. Student B had inappropriate pronunciation such as *your, introduce, briefly, apply, strength, weakness, hire, salary, result, and waiting.* 18 % of students had fair pronunciation. 24% of students had some phonemic errors and 54% less phonemic errors.

Mostly, students had good vocabulary. It was 82%. Only 2% of students used rich and excellent vocabulary and expression. The rest was fair. It was 16 %. Inappropriate ones that were found were "Okey, i will call you later *the* ***governing body settle on a choice"*** or **"**what is your ***strengthness*** and weaknesses?

The result was also found from the analysis of open-ended questionnaire. It can be seen from the frequency of students' responses. Mostly the students learnt speaking skill (31), interview knowledge (12), video making (9), vocabulary (9), and teamwork (9) by making the digital video project.

When making digital video project, all students faced the problem. The main problems mostly they had were speaking problem (20), memorizing of the script (17) and time management (15). The rest were editing video and lack of vocabulary.

They tried to solve the problems they faced by trying hard to practice (speaking, pronouncing, vocabulary, memorize) and deciding best time to make the video. Mostly they made the video when they had free time or weekend.

They felt that making video gave some beneficial for them. They could gain their speaking skill and spoke more fluently (17). They were more brave and confidence to speak English (10). Some of the students responded that even though it was exhausting, they were happy to learn interview and make video.

## 5. Conclusion

Assigning students to make video was beneficial for the students. They not only learn how to make the video but also can gain their speaking skill comprising the comprehensibility, fluency, pronunciation, and vocabulary. They also can work in team in making the video. It can build their interpersonal skill too. A further research is required to conduct because this study does not cover all performance criteria of speaking skill.

## References

1. Aksel, Aynur and Fatma Gurman-Kahraman. (2014). *Video project assignment and their effectiveness on foreign language learning*. Retrieved from www.sciencedirect.com
2. Bahanshal, Dalal A. (2013). *The effect of large classes on english teaching and learning in Saudi secondary schools.* English Language Teaching; Vol. 6, No. 11; 2013. Retrieved from www.ccsenet.org/elt English
3. Brown, H. Douglas. (2007). *Teaching by principles. An interactive approach to language*


ISBN: 978-602-74576-0-7

*pedagogy*. Third Edition. NY: Pearson Longman
4. Cresswell, John W. (2008). Educational research. Planning, conducting,and evaluating quantitative and qualitative research. Third edition. New Jersey: Pearson
5. Eggen, Paul and Don Kauchak. (2007). *Educational psychology. Windows on classrooms. Seventh edition.* New Jersey: Pearson Merril Precentice Hall.
6. Ehrenberg, et.al. (2001). *Class size and student achievement***.** American Psychological Society Vol. 2, No. 1, May 2001
7. Fairfax County Public Schools .2013.*Foreign Language Program of Studies*. Retrieved from www.fcps.edu
8. Hafner and Miller. (2011). *Fostering learner autonomy in English for science: a collaborative digital video project in a technological learning environment*. Retrieved from http://llt.msu.edu
9. Klein et al. (2009). *School students to engage in deep and active learning*. NY: NYC Department
10. Koc, Mustafa. (2010). *Let's make a movie: Investigating pre-service teachers' reflections on using video-recorded role playing cases in Turkey*. Retrieved from www.sciencedirect.com
11. Kuncoro, Mudrajad. (2003). *Metode riset untuk bisnis dan ekonomi*. Yogjakarta:Erlangga
12. Lombardi, Marylin M. (2008). *Making the Grade: The Role of Assessment in Authentic Learning.* ELI Paper 1: 2008 January 2008. Retrieved from net.educause.edu/ir/library/pdf/eli3019.pdf
13. Luoma, Sari. (2004).*Assessing Speaking*. UK: Cambridge University Press.
14. Masats, Dolors and Melinda Dooly. (2011). *Rethinking the use of video in teacher education: A holistic approach*. Retrieved from www.elsevier.com
15. Monks, James and Robert Schmidt. (2010). The impact of class size and number of students *on outcomes in higher education*. Published by the Cornell Higher Education Research Institute, Cornell University. Retrieved from http://digitalcommons.ilr.cornell.edu/workingpaper.
16. Neuendorf, Kimberly A. (2002). *The content analysis guidebook*. London: Sage publication.
17. Nikitina, Larisa.(2009). *Student video project as a means to practice constructivist pedagogy in the foreign language classroom*. Jurnal Pendidik dan Pendidikan, Jil. 24, 165–176, 2009
18. Reynold, Cecil et.al. 2009. *Measurement and assessment in education*. New Jersey: Pearson
19. Shrosbree, Mark. (2008). Digital video in the language classroom. The JALT CALL Journal Vol.4 No.1.
20. Smaldino et.al.,(2008). *Instructional technology and media for learning*. Pearson Prentice Hill
21. Sugiyono. (2013). *Metode penelitian manajemen*. Bandung:Alfabeta
22. Ur, Penny. (2012). *A course in English language teaching*. UK:Cambridge University Press
23. Wolf, Kenneth and Ellen Stevens. (2007). *The role of rubrics in advancing and assessing student learning*. The Journal of Effective Teaching, Vol. 7, No. 1, 2007 3-14


ISBN: 978-602-74576-0-7

# ISLAMIC EDUCATION TEACHERS CURRICULUM: COMPARATIVE STUDY BETWEEN IAIN SURAKARTA AND UPI BANDUNG

by
Dr. Muhammad Munadi, S.Pd., M.Pd
Dra. Noor Alwiyah, M.Pd.

(PUSAT STUDI KEBIJAKAN PENDIDIKAN
FAKULTAS ILMU TARBIYAH DAN KEGURUAN IAIN SURAKARTA)

The Quality of teachers in teaching the subject material depends on the way they master the content of material and how they present it in class. Most of them focus on the methodology but they ignore the mastery of the content. The curriculum plays an important role in preparing the student teachers.
Descriptive qualitative through documentary analysis is used in this study. The writers analyze the curriculum on the website in both the State Islamic Institute (IAIN) Surakarta and Universitas Pendidikan Indonesia (UPI) Bandung.
The results showed that UPI Bandung focuses on the mastery of the content about Islamic studies rather than the methodology. On the other hand, IAIN Surakarta focuses to prepare the student teachers on the mastery of the content based on the job demand; both Islamic Elementary (SD/MI) and Islamic High School (MTs/MA/SMK). The development of additional courses in IAIN Surakarta puts more intensive on religious courses and gives specific purpuses to teach students in Madrasah. Meanwhile, UPI Bandung gives student teachers to strengthen the mastery of content.

**Keywords:** Student teachers; curriculum; Islamic Education

## 1. Background

Islamic education is a compulsory subject taught for all levels of education and educational pathways in Indonesia. It is conducted by the Ministry of Health, Ministry of Religious Affairs, Ministry of Education and other ministries that provide education. As the consequences, student teachers should be prepared by the Institute of Teachers' Training known as LPTK/ Lembaga Pendidikan Tenaga Keguruan. Both The Ministry of Religion and the Ministry of Research, Technology and Higher Education have LPTK as the institute to handle the training.

Student teachers of Islamic Education which are prepared by both private and public Islamic Universities (PTKI) have the big number of applicants. The Ministry of Religious Affairs has 577 islamic universities (53 public islamic universities and 524 Private Islamic Universites). The data show that approximately 90% of islamic universities offer islamic education (PAI) as one of the main study programs.

Universitas Pendidikan Indonesia (UPI) is one of institutes that prepares Student teachers of Islamic Education under the ministry of higher education having Islamic Education study program and the Jakarta State University having courses on Islamic Studies which is specifically on Islamic Education**.** This position makes the competition increasingly hard between one study program and the others.

This paper will examine: the difference of those three LPTKs and the special features on each LPTK. The preparations include making set of curriculum which makes the competent teachers in implementing teaching process in the classroom.

## 2. Islamic Education Curriculum : Theoretical Review

Westbrook et al in Alexander (2013: 12) states the curriculum links the macro (officially selected educational goals and content) with the micro (the act of teaching and assessment in the classroom/school), and is best seen as 'a series of *translations*, *transpositions* and *transformations*'. The statements informs that the curriculum is seen from the macro and micro level and directed to the unity of *translations, transpositions* and *transformati ons.* It covers five aspects (Owen Hicks, 2007) as the followings:

1. *what is to be learned - content*
2. *why it is to be learned - the rationale and underlying philosophy*
3. *how it is to be learned - process*
4. *when it is to be learned - structure of the learning process*
5. *and includes consideration of how the learning will be demonstrated and assessed achievement. "*


ISBN: 978-602-74576-0-7

The aspects above show that the Curriculum covers what is learned such as **content,** why it is learned - rationale and philosophy underlying the curriculum, how it is learned - process, when studied - structure of the learning process and includes consideration How learning is shown and is assessed (achievement).

In the context of higher education according to Harry Hubball, and Neil Gold (2007) *curriculum as a contextually-bound and coherent program of study that consists of multiple integrated and progressively challenging course learning experiences which are carefully designed to develop student's knowledge, abilities and skills*. This opinion emphasizes that the curriculum as program contextual bound and coherent with co ursesconsisting
of several courses integrated and progressively challenging the designed carefully to develop the knowledge, skills and abilities of students
The curriculum on higher education should be based on the pillars of education declared by UNESCO includes *learning to know, learning to do, learning to live together, and learning to be.*
To be able to implement those four pillars. The institution needs to consider the opinions of Slattery's *(Shawn L. Oliver and Eunsook Hyun, 2011) identified three main elements of postmodern curriculum: (a) a focus on community cooperation rather than corporate competition, (b) a holistic process perspective rather than separate parts, and (c) a multilayered, interdisciplinary curriculum, which includes the integration of theology*.

## 3. Results and Discussion

Two different institutions to classificy the research subjects. Course classification offered by both institutions.

Table 1. Course classification

| **PAI IAIN SURAKARTA** | **IPAI - UPI BANDUNG** |
|---|---|
| Mata Kuliah Umum | Mata Kuliah Umum |
| Mata Kuliah Dasar Keahlian | Mata Kuliah Profesi |
| Mata Kuliah Keahlian | Mata Kuliah Keahlian Profesi |
| | Mata Kuliah Latihan Profesi |
| | Mata Kuliah Keahlian Fakultas |
| | Mata Kuliah Keahlian Program Studi |
| | Mata Kuliah Perluasan dan Pendalaman |
| | Mata Kuliah Pilihan Bebas |
| Mata Kuliah Kewenangan Tambahan 1 | Mata Kuliah Kemampuan Tambahan |
| Mata Kuliah Kewenangan Tambahan 2 | |
| Mata Kuliah Kewenangan Tambahan 3 | |

There are different sides of the classification of the course as shown on the table.1. But the framework remains the same, that is for the professional development of student teachers of Islamic Education (PAI). Besides, there is additional Authority Supplement Course with the different names. IAIN Surakarta puts the name of the Authority Supplement courses with three options, while the UPI is only one option.
The basic knowledge of islamic studies is needed to prepare for student teachers. Those are sciences related to the islamic education domain, namely: Aqidah, Akhlak, al Qur'an, Hadits, Fiqh, islamic history and culture. Arabic language is used to study those knowledge intensively. Each LPTK has different ways in giving the inputs as follows:

Table 2. Comparing courses on Aqidah

| KONTEN AQIDAH | |
|---|---|
| PAI IAIN SURAKARTA | IPAI - UPI BANDUNG |
| | Aqidah Akhlak |
| Ilmu Kalam | Aqidah Islam 1 |
| | Aqidah Islam 2 |
| | Aliran-Aliran Teologi Islam |


ISBN: 978-602-74576-0-7

| | |
|---|---|
| | Studi Agama Masyarakat Indonesia |

The table.2 above shows that the content of akidah at UPI is more intensive than at IAIN Surakarta which has only one subject. It also occurs in the course of akhlak, as follows:

Table 3. Comparing courses on Akhlak

| KONTEN AKHLAK | |
|---|---|
| PAI IAIN SURAKARTA | IPAI - UPI BANDUNG |
| Akhlaq dan Tasawuf | Akhlaq |
| | Tasawuf |
| | Studi Naskah Tasawwuf |

The table.3 shows that the akhlaq at UPI is more intensive than akhlak at IAIN Surakarta. However, there is an additional material when students take the course of pre-service teaching of Aqidah at IAIN Surakarta as follows :

Table 4. Additional course

| Perguruan Tinggi | Konten Aqidah Akhlak |
|---|---|
| IAIN Surakarta | Akhlak Tasawuf II<br>Akhlak Tasawuf III<br>Aqidah Akhlak di Madrasah Ibtidaiyah<br>Aqidah Akhlak di Madrasah Tsanawaiyah<br>Aqidah Akhlak di Madrasah Aliyah |

The contents of Aqidah akhlak course is offered to students who are specifically studying akidah. The table shows that PAI study program tries to make student teachers of islamic education ready to teach akidah for all level.

For quranic studies, UPI has the more courses than IAIN Surakarta. As follows

Table 5. Comparing courses on Qur'an

| KONTEN QUR'AN | |
|---|---|
| PAI IAIN SURAKARTA | IPAI - UPI BANDUNG |
| Ulmul Qur'an | Ulum Al Quran (Ilmu Tafsir) 1 |
| | Ulum Al Quran (Ilmu Tafsir) 2 |
| Tafsir I | Tafsir Al Quran 1 |
| Tafsir II | Tafsir Al Quran 2 |
| | Tafsir Al Quran 3 |
| | Tafsir Al Quran 4 |
| Tafsir Tarbawi I | Tafsir Pendidikan 1 |
| | Tafsir Pendidikan 2 |
| | Tahfiz Quran 1-8 |
| | Studi Kritis Tafsir |
| | Qira'at Wa Tahfidz al Qur'an |
| | Balagah Al Quran |
| Keahlian Tahsin al Qur'an | |
| Keahlian Menulis al Qur'an | |

The table 5 shows that student teachers at UPI do not only focus on memorizing Koran, but also have deeper understanding in interpreting its content. Doctrinal and critical commentary are also taught to them at UPI.

Both two universities offer Courses on Hadith. The comparison is as follows:

Table 6. Comparing courses on Hadits

| KONTEN HADIS | |
|---|---|
| PAI IAIN SURAKARTA | IPAI - UPI BANDUNG |
| Ulumul Hadis | Ilmu Mustalah Hadis 1 |
| | Ilmu Mustalah Hadis 2 |
| Hadis 1 | Hadis 1 |
| Hadis 2 | Hadis 2 |
| | Hadis 3 |
| | Hadis 4 |
| Hadis Tarbawi 1 | |
| | Studi Kritis Hadis |

Table 6 shows that student teachers at IPAI UPI do not only focus on doctrinal study on Hadits (hadits 1-4), but also on critical study of mastering the knowledge of musthalah hadits (2 courses).


ISBN: 978-602-74576-0-7

Meanwhile, IAIN Surakarta focuses on doctrinal study only.

However, IAIN surakarta put the additional courses of Quran Hadist, as follow

Table 7. Additional courses of Quran Hadist

| Perguruan Tinggi | Konten Qur'an Hadits |
|---|---|
| IAIN Surakarta | Tafsir Tarbawi II<br>Hadits Tarbawi II<br>Qur'an Hadits di Madrasah Ibtidaiyah<br>Qur'an Hadits di Madrasah Tsanawaiyah<br>Qur'an Hadits di Madrasah Aliyah |

The content above is a continuation of the previous content on Qur'an and Hadith. The table 7 shows that the PAI study program tries to make students who have learning specifications on Quran Hadith by offering intensive courses.

In the content of fiqih, the comparison of the two institutes is illustrated as follow

Table 8. Comparing courses on fiqih

| KONTEN FIQH | |
|---|---|
| PAI IAIN SURAKARTA | IPAI - UPI BANDUNG |
| Ushul Fiqh | Usul Al Fiqh |
| Fiqh I (Fiqh Ibadah) | Fiqh 1 |
| Fiqh Ii (Fiqh Mu'amalah) | Fiqh 2 |
| | Fiqh 3 |
| | Fiqh 4 |
| Masailul Fiqh | Fiqh Muqaran |
| | Implementasi Qawaid Usuliah Dalam Kajian Hukum Islam |
| | Fiqh Ibadah |
| | Fiqh Muamalah |

UPI and IAIN Surakarta have the similar content of fiqh. Courses in UPI are not only doctrinal study but also critical study . It can be seen from the courses of Fiqh Muqaran and Implementation Qawaid Ushuliah in the study of Islamic law.

Strengthening the content is given to the students of IAIN Surakarta if they take concentration corresponding specialization of subjects in Fiqh, Aqidah Akhlak, al Qur'an Hadits, and Sejarah Kebudayaan Islam. The picture is as follows.

Students who take the concentration of fiqh should take additional courses as follows:

Table 9. Additional courses of Fiqh

| Perguruan Tinggi | Konten Fiqh |
|---|---|
| IAIN Surakarta | Fiqh III (Fiqh Jinayah)<br>Fiqh IV (Fiqh Munakahat)<br>Fiqh di Madrasah Ibtidaiyah<br>Fiqh di Madrasah Tsanawaiyah<br>Fiqh di Madrasah Aliyah |

This content is a continuation of the previous content displayed in a Roman-numbered. The table shows that the PAI study program seeks to make student teachers ready to teach all levels. Preparation of student teachers of Islamic education (PAI) who have mastery of content and teaching of history is sometimes forgotten. The compounded subject of Islamic history in MI until MA is also very limited, many student teachers are less familiar with the core of the history of Islam. They are more familiar with the story that is not based on historical fact.

In the case of Strengthening Islamic history, it can be seen on the following table:

Table 10. Comparing courses on islamic culture and history

| KONTEN SEJARAH KEBUDAYAAN ISLAM | |
|---|---|
| PAI IAIN SURAKARTA | IPAI - UPI BANDUNG |
| | Riwayat Nabi-Nabi |
| | Sejarah Modern Islam |
| Sejarah Peradaban Islam | Sejarah Peradaban Islam |
| | Sejarah Perkembangan Pemikiran Islam |
| | Sirah Al-Nabi Saw |


ISBN: 978-602-74576-0-7

The comparison table shows the various materials of history at UPI is more dominant than at IAIN.

However student teachers at IAIN Surakarta take additional courses on Cultural History of Islam. They are obliged to take the following courses:

Table 11. Additional courses on Islamic Culture and History

| Perguruan Tinggi | Konten Sejarah Kebudayaan Islam |
|---|---|
| IAIN Surakarta | Filsafat dan Metodologi Sejarah<br>Sejarah Kebudayaan Islam di Timur Tengah dan Eropa<br>Sejarah Kebudayaan Islam di Indonesia<br>Sejarah Kebudayaan Islam di MI & MTs<br>Sejarah Kebudayaan Islam di Madrasah Aliyah |

Student teachers can take the intensive course of SKI to make them professional. Those contents are the next level after completing the previous contents.

It can be seen that PAI study programm is trying to make student teachers become professional teachers for all levels.

The intensive courses are given comprehensively to the student teachers along with foreign language, in this case Arabic.

The mastery of Arabic (listening, speaking, reading, and writing) gives better input in mastering the contents intensively and individually. As the results, Language course is the key to understand contemporary manuscripts related to PAI.

The arabic course is prepared by both universities as described in the following table:

Table 12. Additional course/ language course

| KONTEN BAHASA ARAB | |
|---|---|
| PAI IAIN SURAKARTA | IPAI - UPI BANDUNG |
| Bahasa Arab 1 | Bahasa Arab 1 |
| Bahasa Arab 2 | Bahasa Arab 2 |
| | Bahasa Arab 3 |
| | Bahasa Arab 4 |
| | Bahs Al Kutub |

Mastering foreign language (esp. Arabic) is very important because it is the core to understand of primary books of Islamic Teaching. Mujamil Qomar (2015) states that that the ability to master language is intended as a science which is a prerequisite to understand the material of PAI.

Strengthening at the level of the contents in the field of study is not sufficient if it is not balanced with basic competence of students. Two different study programs perform different steps to equip the mastery of learning competencies. The result of the analysis of the curriculum as follows:

Table 13. Comparing courses on Basic competence of teaching

| KOMPETENSI DASAR PEMBELAJARAN | |
|---|---|
| PAI IAIN SURAKARTA | IPAI - UPI BANDUNG |
| | Filsafat Umum |
| | Filsafat Islam |
| Filsafat Ilmu | Filsafat Ilmu |
| Statistik 1 dan 2 | Statistik |
| | Sejarah Pendidikan Islam |
| | Filsafat dan Teori Pendidikan |
| Filsafat Pendidikan Islam | Filsafat Dan Teori Pendidikan Islam |
| | Studi Kritis Terhadap Teori-Teori Pendidikan |
| | Studi Naskah Filsafat Islam |

Philosophy becomes the foundation course to develop the other subjects. UPI puts more portions on the course of philosophy and makes the student teachers have ability in critical thinking and doctrinal thought.

The number of basic philosophy in PAI does not automatically make a student teacher can teach. Therefore, they are equipped with courses to understand the characteristics of learners deeply. Two colleges provide different content of the characteristics of learners.


ISBN: 978-602-74576-0-7

Table 14. Comparing courses on Basic competence of teaching characteristics

| KOMPETENSI DASAR TEKNIS PEMBELAJARAN | |
|---|---|
| PAI IAIN SURAKARTA | IPAI - UPI BANDUNG |
| Psikologi Perkembangan | Psikologi Agama |
| Psikologi Pendidikan | |
| Bimbingan dan Konseling Islam I | |
| Bimbingan dan Konseling Islam 2 | |
| Sosiologi Pendidikan | Sosiologi Agama |
| | Pengantar Ilmu Sosial |

In this context, IAIN Surakarta gives more contents in psychology which are dominants. This is useful to make student teacher is able to be familiar with the students. This institution provides the wider courses in the same direction which is the technical side of learning in the classroom, as the following table:

Table 15. Comparing courses on learning competence

| KOMPETENSI PEMBELAJARAN | |
|---|---|
| PAI IAIN SURAKARTA | IPAI - UPI BANDUNG |
| Metodologi Pembelajaran PAI | Metode Dan Model Pendidikan Islam |
| Strategi Pembelajaran Fiqh | |
| Strategi Pembelajaran Qur'an Hadis | |
| Strategi Pembelajaran SKI | |
| Strategi Pembelajaran Aqidah Akhlak | |
| Perencanaan Sistem PAI | |
| Pengembangan Evaluasi I dan II | |
| Pengembangan Kurikulum PAI | |
| Analisis Kurikulum PAI | |
| Pengembangan Bahan Ajar | |
| Teknologi Pembelajaran | |
| Media Pembelajaran | |
| Micro Teaching | |
| Etika Profesi | |
| Magang I | Program Latihan Profesi (PLP) |
| Magang II | |
| Magang III | |

The table 15 shows that the preparedness of curriculum in IAIN Surakarta is technically more dominant and more varieties than UPI.

The findings above have not displayed yet in percentage and each institution seeks to strengthen the professionalism of student teachers of PAI.

The dominant side of the content occurs almost similar to the findings of Tan et.al (2007: 74) that student teachers education in Singapore has components of the study and distributed as follows: *Education studies (20%), Curriculum studies (50%), Practicum (25%), Language enhancement and academic discourse skills (5%)*. Thus, student teachers preparation has contributionon the quality of learning. This happens when they find the real teaching application in educational institutions/ schools.

## 4. Conclusion

UPI Bandung focuses on strengthening the mastery of content rather than the mastery of methodologies to prepare student teachers of Islamic education (IPAI).

IAIN Surakarta prepares student teachers intensively on strenghtening the teaching process based on the job demand which is to teach in Islamic elementary school/ MI, Islamic Junior High School/ MTs, and Islamic senior high school/ MA.

IAIN Surakarta has many varieties on developing the additional courses on Islamic Education and it is based on the grouping for subject materials in both Islamic elementary and high school in Indonesia.

References

David Bridges. (2000). Back The Future : The Higher Education Curriculum in The 21st


ISBN: 978-602-74576-0-7

Century. *Cambridge Journal of Education, Vol. 30 No. 10, 2000*

Harry Hubball, and Neil Gold. (2007). *The Scholarship Of Curriculum Practice And Undrgraduate Program Reform: Theory-Practice Integration.* Retrieved from www.cte.hawaii.edu/.. *./HH_NG_Ch1_2.pdf*

John Brennan, Roger King and Yann Lebeau (2004). The Role of Universities in the Transformation of Societies An International Research Project. London: Centre for Higher Education Research and Information The Open University. *www.open.ac.uk/cheri/documents/transf-final-report.pdf*

Mujamil Qomar (2015). *Meneguhkan Profesionalisme Guru PAI: Sebagai Penggerak Kemajuan Ummat. Makalah dalam Acara FITK* UIN Maliki Malang

NS Rupidara. (2008). Menjadi Universitas Riset? http://nsrupidara.wordpress.com/ 2008/05/23/ menjadi-universitas-riset/

Owen Hicks (2007). Curriculum in higher education in Australia – Hello? in Enhancing Higher Education, Theory and Scholarship, *Proceedings of the 30th HERDSA Annual Conference [CD-ROM], Adelaide, 8-11 July*.

Shawn L. Oliver and Eunsook Hyun. (2011) Comprehensive curriculum reform in higher education: collaborative engagement of faculty and administrators Journal of Case Studies in Education. Journal of Case Studies in Education. *Journal of Case Studies in Education* 2 (2011): 1-20. *www.aabri.com/manuscripts/10649.pdf*

Tan, Steven K. S., and Wong, Angela F. L. with S. Gopinathan, Kim Chuan Goh and Isabella Y. F. Wong. (2007). CHAPTER 6 The Qualifications of the Teaching Force: Data From Singapore in Ingersoll, Richard M. (2007). A Comparative Study of Teacher Preparation and Qualifications in Six Nations

The Common Core State Standards and Teacher Preparation The Role of Higher Education. http://www.aplu.org/projects-and-initiatives/stem-education/SMTI_Library/APLU-SMTI-Paper-2/file?id=3482

Thusari Welikala. (2011). Rethinking International Higher Education Curriculum: Mapping the research landscape. A position paper commissioned and published by Universitas 21, leading global network of research unversities for the 21st century May 2011

Westbrook J, Durrani N, Brown R, Orr D, Pryor J, Boddy J, Salvi F (2013) Pedagogy, Curriculum, Teaching Practices and Teacher Education in Developing Countries. Final Report. Education Rigorous Literature Review. Department for International Development. University of Sussex. https://eppi.ioe.ac.uk/cms/LinkClick.aspx?fileticket=XHbLcIohFq0%3D&tabid=3437

Whitehead, Alfred North (1927). Universities and Their Function. https://webspace.utexas.edu/hcleaver/www/330T/350kPEEwhiteheadunivfxtable.pdf


ISBN: 978-602-74576-0-7

# THE ROLE OF TEACHERS' BELIEFS AND MATHEMATICS TEACHING PRACTICES TOWARDS SUCCESSFULLY IMPLEMENTED CURRICULUM

Pika Merliza
*Mathematics Education, University of Yogyakarta, Jl. Colombo No.1 Yogyakarta, 55281, Indonesia*

Uke Ralmugiz
*Mathematics Education, University of Yogyakarta, Jl. Colombo No.1 Yogyakarta, 55281, Indonesia*

Abstract.
This paper discusses theoretical assumptions about the role of mathematics teachers' beliefs and their impact on implemented curriculum. It is assumed big influence that contributed by teachers' beliefs to the mathematical teaching and learning process in which measure how success implementation of new curriculum. Curriculum change is purposed to educational reform in all lessons including on mathematics learning process. Nevertheless, it is a confusing circumtances for the teachers who have noteworthy thing to apply those educational rule in the class. Whereas, in practices, teachers hold strong position in term of mathematics curriculum implementation. They have their own beliefs about the quality and the process of innovation. These beliefs, complex enough process for teachers who have experiences and daily teaching routine. Their experiences strongly contributed to their beliefs. Thus, literature based on several researches draw that there is inconsistency between intended and implemented curriculum looked by mathematics' teachers belief. The literature indicates that studies of mathematics teachers' belief should be concern to reveal complexity teachers' perception about mathematics process and succefully implemented curriculum. In addition, staff development is alternative model expected changing teachers' belief sake of succesfull implementation of curriculum.
KEY WORDS: Mathematics' teachers beliefs, implemented curriculum, mathematics learning

## 1. Introduction

Changing in curriculum immediately changes a lot of teaching and learning process which become a complex process. It triggers confusing for stakeholders (Iceng Hidayat, 2007), as teachers, parents, students, educational institution, businessman, and learners itself. Curriculum reform affects change in all aspect of applying learning that consists of objectives, content standart, and materials as well as are used as guidelines for learning activities to achieve specific those objectives. The changes occur in the intended, implemented, and attained curriculum. This circumtances, forcing stakeholders should think about how they can harmonize with the aims. Particularly, for main actors in the process of implementation of the learning process, namely teachers, who have an crucial role to apply implemented curriculum. Change in curriculum has a great expectation to be applied properly in practicing. It is said that the teachers' beliefs about Teaching and learning mathematics is very important in determining the pace of curriculum reform (reliable and Herrington, 2003).

The crucial role of teachers' belief in the implementation of the curriculum. In the learning process of implementation curriculum, teachers Hold strongly beliefs about the quality and innovation process that affect the implementation of the new curriculum, especially in the are of mathematics.

Actually, curriculum change as a part of curriculum reform, has been made parallel and harmonize that given space for teachers to design learning practicing. Curriculum provides laerning materials, methode, approaches that should teachers use during the class (Bybee, 1997). Policy-maker has been elaborated a step-by-step learning process in detail that should be applied in takes places. However, the implementation of curriculum ,verily, is the prerogative right of the teachers in practice. Many teachers during the implementation of the educational curriculum, especially of mathematics subjects feels hesitant over the successful implementation of a new curriculum that expected will upgrade learning result score. The hesitancy is what makes teachers rely more on their own beliefs than on current trends in teaching and learning that have been mentioned in the curriculum. Those


ISBN: 978-602-74576-0-7

teachers' doubts looks very strong on the content and implementation of the curriculum (standard process), and often times, the curriculum is not implemented as they should be according to which has been designed and is intended in the curriculum (Cronin-Jones, 1991). This usually happens because of difficulties in implementing the curriculum that the charge is not appropriate and does not support the beliefs of teachers about the teaching and learning of mathematics. Teacher's belief is based on hesitancy and confusion to change in the curriculum is very possible, especially for teachers who have experienced, due to the belief that conservative with experience and their daily tasks during the learning process. This is supported by the opinion of Borg (2011, p. 187) stating that "Belief is amental u.s. state which has its content aproposition that is accepted the u.s. true by the individual holding it, although theindividual may recognize that alternative may be held by others".

It is clear that the position of teachers' beliefs is very crucial on teaching practicing decision toward learning process will be. Through this belief, teachers select and determine what kind of teaching and learning activities that they will perform, including device/media and learning methods usage. Teachers' beliefs form the nature of theteaching practices ofteachers (Yates, 2006). We must quickly realize that no matter how carefully packaged curriculum, teachers will persist with their beliefs. When the government especially the policy- maker does not involve teachers in curriculum change. Beliefs of teachers will definitely have an great impact in implementing the curriculum. This articles is written to see how beliefs will affect successfully implemented curriculum based on theorytical framework providing researchs' result on curriculum implementation drawing conditions about ptocess of implementing a new curriculum (Snynder, Bolin, Zumwalt, p.402).

## 2. Curriculum Change and Teachers' Belief

### *2.1 Teachers' Belief in Mathematics Learning and Teaching Process*

Teachers' belief is part of teachers' afective skill in which accumulation of experiences and social interaction. According to Thompson (1984) teachers' beliefs "seemed to be manifestations of unconsciously held views of expressions of verbal commitments to abstract ideas that may be thought of as part of a general ideology of teaching" (p. 112). It is teachers' personal concept regarding a knowledge affected what learning and teaching model, methode, approaches and strategy applied (Handal dan herrington, 2003).

Goodman (1988) state that teachers' learning concept is imaging of their past events creating their personal intuitive to understanding best environment to learn. Meanwhile, Calderhead and Robson (cited by Pajares, 2016) reported that "preservice teachers held vivid images of teaching from their experiences as students, images that influenced interpretations of particular courses and classroom practices and played a powerful role in determining how they translated and utilized the knowledge they possessed and how they determined the practices they would later undertake as teachers" (p.310).

According to Ernest (1980) there are three key element to identify mathematics teachers' belief system namely, view or conception of nature of mathematics, mathematics teaching and the process of learning mathematics. Whereas, Torner (2002, cited by Maass 2011) distingued complex nature of teachers' perspective about mathematics as science and the learning of mathematics beliefs.

Nonetheles, in this articles, author starts to write based on Ernest's view:

### *2.2 Teachers' belief toward the nature mathematics*

Lerman (1983, cited by Pepin) adopted from mathematics philosophy thought, Euclidean and Quasi-Empirical schools, so he introduce dychotomy conception of teachers' beliefs, namely absolutis and falibilist. Absolutist perspective considers that mathematics is absolut, static, true, certain and universal. In mathematics school, students tought in mechanistic, structuralist mathematics class, students have passive role in the class. Whereas, Falibilist adherent convinced that mathematics is dynamics, uncertainty which developing, approval and proving (Lerman 1983).

Thomson (1984, cited by Ernest 1989) reported by his research that he categories three group of teachers' belief about the nature of mathematics:

1) Instrumentalist View of Mathematics
   Teachers' in this view considering that mathematics is accumulation of facts, rules and skills to be used in the pursuance of some external end. Mathematics is a tool that could be


ISBN: 978-602-74576-0-7

used by expert person to do mathematics. Thus, mathematics is a set of unrelated but utilitarian rules and facts.

2) Platonist View of Mathematics
   Teachers' platonist belief about mathematics convince that mathematics as a static but unified body of certain knowledge. There is strongly relation among each part of mathematics. Product of mathematics has static characteristic. Mathematics is discovered, not created.
3) Problem Solving View of Mathematics
   Problem solving view of mathematics as a dynamic, continually expanding field of human creation and invention, a cultural product. Mathematics is a process of enquiry and coming to know, not a finished product, for its results remain open to revision. So, mathematics is a discovering process to find understanding, reasoning, connecting in order to get addition of mathematical knowledge addition.

Ernest state that teachers' belief view above is hierarchy charaterictic from the bottom to the top, namely instrumentalist, platonist, and problem solving views.

Pepin takes parallels between Lerman's absolutist and fallibilist views and Ernest's platonic and problem-solving views.

Furthermore, Skemp (1978) revealed two mathematics perspectives as relational and instructional knowledge of mathematics. According to Skemp, instrumental knowledge of mathematics means a a set of detail procedures given by teacher in order to students can performance mathematics tasks perfectly, meanwhile relational mathematics helped to send conceptual structures that enable the pupils to construct several own steps for solving mathematical problems.

***2.3 Teachers' belief of mathematics teaching***

transmission and learning process teachers. The transmission teachers thought that the peak goal of mathematics education is to make pupils can utilize their logical thinking and their knowledge. To achieve these aims, both teacher explanation and standard exercises are considered to be highly effective Maaß (2009, cited by Maas 2011, p. 574) . On the other hand, Learning process teacher, considers mathematics teaching to be effective when the thinking processes of students are initiated. Author summarize that Maaß is agree with Piaget's learning theory about education. Then, parallel with mathematics relistic education (RME) introduced by Freudenthal. Ernest named this mathematics education goals for developing pupils problem-solving skills and ability to apply mathematics knowledge in their daily lives.

In Addition, Van Zoest et all, (1994 cited by Beswick 2012) categorized teachers' belief about mathematics teaching consist of three content focussed with an emphasis on performance, content focussed with an emphasis on understanding and learner focussed. Whereas, Kuhs and Ball (1986, cited by Pepin) agreed with Van Zoest, yet he added classroom-focused belief about mathematics teaching process. The following reveals of four distintion:

1. *Learner-focused*
   Teaching focuses on students. They are being active learners in the class. Teachers' task is to encourage learners actively to solve the task using exploration and collecting fact. Fact which found by their own way scaffolded teachers. This model parallels with teachers' view point as mathematics is dynamic and non-absolute. Teachers' being fasilitator and stimulator who create scaffolding to stimulate students creativity.
2. *Content-focused with an emphasis on conceptual understanding*
   This model adopted by Platonis argumentation that focusses on conceptual understanding of the mathematics content itself. This is in compliance with learning theory of Brownell (1935) that emphasize on understanding ability of students toward logic relation among mathematics ideas, concept and mathematics procedure logically.
3. *Content- focused with an emphasis on performance*
   The aim of emphasizes is to drive student being mastery of mathematical rules and procedures. In school, the rules is a main basic that uses students to find solution on mathematics without understanding a concept itself.
4. *Classroom-focused*
   This model emphasizes on effective circumtances in classrooms. Teachers' belief that good organizing of class creates well of student learning result.


ISBN: 978-602-74576-0-7

To recapitulate correlation among mathematics teachers' belief, teaching and learning, Beswick (2012) determines the following categories:

Table 1.
*Categories of teachers' belief*

| Beliefs about the nature of mathematics (Ernest, 1989) | Beliefs about mathematics teaching (Van Zoest et al. 1994) | Beliefs about mathematics learning (Ernest, 1989) |
|---|---|---|
| Instrumentalist<br>Platonist<br>Problem solving | Content focussed with an emphasis on performance<br>Content focussed with an emphasis on understanding<br>Learner focussed | Skill mastery, passive reception of knowledge<br>Active construction of understanding<br>Autonomous exploration of own interests |

From Beswick (2012, p. 150 )

### 3. Curriculum Change in Mathematics Education

In Indonesia, a curriculum change has been initiated since 1947 and then in 2013. Actually, the curriculum change starts the government doing reform over previous education, change learning paradigm following universal one about education, from the teaching paradigm to learning processes, teacher-center into a student-center. The changing of curriculum that includes change to the content-standard, process-standard, and the graduation competenced standard and assessment-standard.

In 2013, Indonesia released new curriculum called K13. This curriculum changed from 2006 curriculum (KTSP), enacted on the government regulation No. 19, 2005 that regulates national education standard has been changed to No. 32 2013. Changing national education standard in indonesia stated in previous regulation that not accomodir functions and national education targets that must be aligned with the dynamic circumtances of society development, local, national, and global ( No. 32, 2013 ). Furthermore, the point that the development 2013 curriculum (K13) is a further step of curriculum development based competence that were pioneered by 2004 and 2006 curriculum, which includes competence in attitude, knowledge, and skills integrated. The old curriculum perceived less accommodate on creating students' ability to be ready competitiveness in the world.

On regulation of Education ministry No.32, 2013 about education standard curriculum attached 8 standards of those, including content, process, and assessment standards. There are No. 64, 2013, No. 103, 2014 and No. 53,2015 respectively.

The objective of graduational standard of education is how learning process can help learners achieve graduation ability, consist of attitude, knowledge, and skill terms. For achieving that aims, teachers expected to design and create interactive, inspirative, fun, challenging students to give a active space for those to extend their creativity and independency based on their talent and interest. According to process standard, attached on No. 103, 2014, that characteristic of learning with using Scientific, tematic, discovery/inquiry learning, and problem-based learning. Those are to encourage students creating contextual products privately and communality. Process of learning characteristic is based on the school itself. For instance, Junior and senior heading to learn using scientific, inquiry approaches.

The regulation above could not be successfully implemented without teachers' active strong supporting. The teachers holds crucial role in term of successful implemantation of curriculum. They have tight prerogative right to apply new curriculum reform that expected creating ideal learning process reflexted by the evaluation. Teachers can apply mathematics universally not traditional mathematics that focuss on abstraction learning class, mathematics learning correlated with pupils' daily lives (contextual learning).

Nevertheles, I disagree with the realisation that reveals above. Based on, national standar in 2006 curriculum, policy maker enlighten almost similar aims, yet as undetail as 2013 curriculum (K13) tidak sedetail kurikulum 2013. Mathematics learning process was designed focusses on students. On assessment standar, teachers is not only focus on students achievement concept of mathematics but also their religiousness, and social attitude. To recapitulate, curriculum reform is a form of betterment toward previous curriculum. The goverment does reformation of curriculum, mainly on learning process policy as the best evaluation.

On the other hand, on learning process, mathematics class is not properly with standard process itself, not parallel with the regulation objective. The teachers' neglect are caused many factors, namely teachers' insight about the regulation, teacher's belief, competency, prosperity, and trigger to change


ISBN: 978-602-74576-0-7

negative culture that influence education process (Podomi, Abdurrahman & Soeyono, 2012 ). Teachers' belief is a tool to measure how far implemantion of new curriculum. The changing of new curriculum could not published as a success decision if not harmonize with teacher's beliefs.

***2.3 Implemented Curriculum and Mathematics Teachers' Beliefs in New Curriculum***

Implementation of new curriculum provides at different stages of learning proces sstandards. Teachers who have significant role with applying new curriculum reform should use every component being radically new during their teaching (Hershkowitz, Tommy Dreyfus, Ben-Zvi, Resnick, Tabach, & Scharwz, p.667), so they needs a lot of knowledge about the regulations itsel, or model/methodes, approaches that properly with new curriculum.

Many literatures and research result published how significant of mathematics' reform in curriculum entire the world. It explains that teachers take main role to implement new mathematics curriculum (Battista, 1994). Supported by Anderson and Piazza (1996, p. 54) stated that "teachers, who must be the agents of change, are product of the system they are trying to change."

The latest curriculum without balancing among inovation, knowledge, perception, and belief affect lack of the implemented curriculum. Goverment including educational policy maker usually make Top-down solution (Kyeleve & Williams, 1996; Bulan, 1986) deny educators factors importantly their beliefs practices, could not give those to do innovation by their own concept in the class (Norton, McRobbie & Cooper, 2002; Perry, Howard & Tracey, 1999). Burke (handal dan herrington, 2003) have argued, then curriculum policy-makers may do well to look indepth at mathematics teachers' beliefs. If the mathematics teachers' beliefs are not congruent with the beliefs underpinning an educational reform, then the aftermath of such a mismatch can affect the degree of success of the innovation aswell as the teachers' morale and willingness to implement further innovation.

Handal and Herrington classify factors affecting curriculum reform in mathematics education:

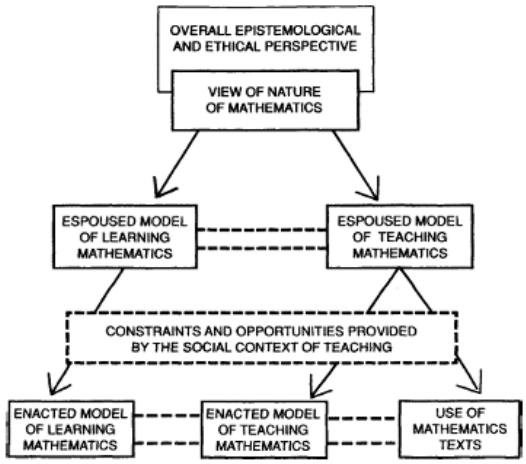
Table 1.
*Factors Affecting Curriculum Reform in Mathematics Education*

| Curriculum Factors | Instructional Factors | Organisational Factors |
|---|---|---|
| Externally imposed innovation | Importance attached by teachers to old practice | Lack of supportive mechanism |
| Lack of curriculum users' participation | Inadequate knowledge of subject matter, method and student assessment | Lack of coordination |
| Non-clarity of curriculum changes | Examination dominated teaching | Lack of communication |
| Mismatch between official curriculum and actual curriculum | Mismatch between teachers, belief system and curriculum goals | Lack of classroom materials |
| Change is not responsive to curriculum users' needs | Lack of detailed planning | Lack of physical facilities |
| Imported innovation | Lack of motivation, incentives and rewards | Lack of resources |
| Unplanned change | Lack of professional development | Lack of INSET |
| | Lack of classroom interaction | Lack of community participation |
| | Lack of students' interest | Influences of political leaders |
| | | Influence of bureaucracy |

(Handal and Herrington, 2003, p. 61)

On instructional factors above seen that there is mismatch between teachers' belief system and curriculum goals influencing new curriculum reform. Furthermore, Ernest (1991, p.200) supporting Handal and Heringthon's argument with creating schema permormance of mathematics teachers' belief in practices:


ISBN: 978-602-74576-0-7




From Ernest (1991, p. 290)

Figure 1. The relationship between mathematics' standard on curriculum and teachers' practicing.

In the philosophy of mathematics, Ernest argued that "enacted model", including lesson plan, syllaby, text book, etc, is crucial thing that create mathematics teachers' belief impacted their own practicing in di class. Kuba (1993) divided two phenomenon of which inconsistency between what intended curriculum released and implemented curriculum do.

Nevertheles, affected of inconsistency on learning practice of teachers' is identified by constraints and opportunities provided by the social context of teaching Clark and Peterson (p.290 cited by Ernest). The social context has a powerful influence, as a result of a number of factors including the expectations of others, such as students, their parents, fellow teachers and superior (Ernest, p. 290). Fullan (cited by Snynder et all, p.416) stated that indentifies ten factors at the school affecting implementation curriculum, namely "The district's history of innovative attempts, the adoption process, district administrative support, staff development and participation, time-line and information system (evaluation), board and community characteristics.

School-level factors affect implementation as well The role of the principal, teacher-techers relationship, teachers' characteristic and orientations".

For example, van den Berg and Ros (1999, cited by Charalambous & Philippo) found that "when a reform is introduced, teachers mainly express intense self concerns; later on,these concerns diminish while their task concerns are intensified. As the reform gets established, teachers express more concerns about its impact on students and propose modifications to increase its effectivenes."(2010, pp. 3)

This is mandatory for goverment particularlly educational policy maker to be concern not only a draff and regulation that part of curriculum change, but also staff development including teacher that can represent what the curriculum expect, this is main determinant to measure implemented curriculum (Cooney, 1988; Goffree, 1985).

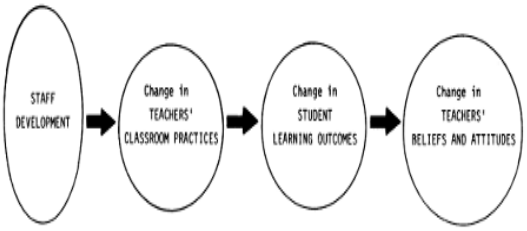
Conclusion

From discussion some theories about mathematics teachers' belief and new curriculum change showed that "what a teacher considers to be desirable goals of the mathematics program, his or her own role in teaching, the students' role, appropriate classroom activities, dserible in procedures, and acceptable outcomes of instruction are all part of the teachers's conception of mathematics teaching. (Thompson, p. 127)

According to Guskey (1986), there are a way that change strongly teachers' belief, parallel with regulation existed. Based on the article about staff developement, Guskey stated that one of crucial factor that ignored by policy is teachers' beliefs. It is one of reason that failed implementation of curriculum. Fullan and Harris (cited by Guskey, 1986) argued that effort that can change teachers' belief, attitude and perception by inviting those in staff development training. In addition, Maas (2011) mentioned on his paper that examine in more detail the question of how teachers' beliefs may influence the implementation of change as suggested by a professional development initiative. Finally, they spresume that such a change in teachers' beliefs and attitudes will lead to specific changes in their classroom behaviors and practices which, in turn, will result in improved student. Shulman (1986, cited by Maas) stated that "whether or not a professional development initiative leads to change depends not only on the context, but also on the teachers themselves. Here, we have to consider the teacher's professional knowledge and competencies their classroom practices and also their beliefs (Schoenfeld, 2011) (2011, pp.573). In that trainning should involve teacher to decide planning and development of new programe. Their expertise and experience are valuable resource that should not be ignored.

Guskey draw a model of the process of teacher change in staff development:


ISBN: 978-602-74576-0-7




From Guskey (1986, pp. 7 )

Figure 1. A Model of the process of Teacher Change

From the figure above, it shows process that should be through by the teachers in tranning process needs more time. To change their belief, the government should tackle steply involving teachers classroom practices and students learning outcomes. Based on several studies about model above, Bolster (1983, cited by Guskey) has strongly belief that "what teachers believe to be true is that which the have seen work in their own class" (p.7). Furthermore, It can be realized that if the new curriculum applied should be supporting staff development iniate. Nonetheles, that model could not change the entire teachers' that join in the trainning, it can influence the majority of participants. Thus, by staff development, it will be impacted changing teachers' beliefs affecting successfully implemented curriculum.

**References**

Beswick, K. (2006). The Importance of Mathematics Teachers' Beliefs. *Australian Mathematics Teacher*, 62(4), 17-22.

Beswick, K. (2012). Teachers' beliefs about school mathematics and mathematicians' mathematics and their relationship to practice. *Educational Studies in Mathematics*, 79(1), 127-147. doi: 10.1007/s10649-011-9333-2

Charalambous. Y. & Philippou. G. (2010).Teachers' concerns and efficacy beliefs about implementing a mathematics curriculum reform: integrating two lines of inquiry.Educ Stud Math. 75(1), 1-21. doi: 10.1007/s10649-010-9238-5

Ernest, P. (1989).The impact of beliefs on the teaching of mathematics. P. Ernest (ed.). *The 6th International congress of mathematical education*. Retrieved from http://webdoc.sub.gwdg.de/edoc/e/pome/impact.htm

Hidayat, Iceng. (2007). Peranan keyakinan guru terhadap hakikat dan belajar mengajar science dalam pengembangan profesionalisme [Duel: The role of teachers' belief toward the nature of science, the teaching and learning in science in developing proffesionalisme. Palembang, Indonesia: Sriwijaya University

Hershkowitz, Dreyfus, T., Ben-Zvi, Resnick, Tabach and Scharwz. (n.d). Handbook of International research in mathematics education. LYN (ed). D. English

G.Thomson, A. (1992). Teachers' belief and conceptions: a synthesis of research. In Grouws (Ed.), *Handbook of research on mathematics teaching and learning* (pp. 127-146). New York, NY: Macmillan publishing company.

Guskey, T. R. (1986). Staff development and teacher change. *Educational Researcher*, 5(5), 5-12.

Liljedahl, P. (n. d). *T*eachers' beliefs as teachers' knowledge. Retrieved from https://www.unige.ch/math/EnsMath/Rome2008/WG2/Papers/LILJED.pdf

Maas, K. (2011). How can teachers' beliefs affect their professional development?. *ZDM Mathematics Education*, 43, 573–586.

Pepin, B. (n. d.). Epistemologies, beliefs and conceptions of mathematics teaching and learning: the theory, and what is manifested in mathematics teachers' work in England, France and Germany.

Philip, R. A. (n. d.). Mathematics teachers' beliefs and affect. Retrieved from http://www.sci.sdsu.edu/CRMSE/STEP/documents/R.Philipp,Beliefs%26Affect.pdf

Podomi, P. A., Abdurahman, G., and Soeyono, Y. (2012). Keyakinan guru terhadap matematika dan profesinya [Duel: Teachers' beliefs regarding mathematics and their proffesion. Yogyakarta, Indonesia: Yogyakarta University

Snyder, Bolin, Zumwalt. (1992) Curriculum Implementation.. Jackson, P (ed.). *Handbook*


ISBN: 978-602-74576-0-7

*of research on curriculum: a project of the American educational research association* (pp. 402-435). New York, NY: Macmillan publishing company.

Yates, S. R. (2006). Elementary teachers' mathematics beliefs and teaching practices after a curriculum reform. In Novotna, J., Moraova., Kratka, M. & Stehliko, N. (Eds.). Proceedings 30th conference of the International Group for the Phychology og Mathematics Education (pp. 430 -440). Adelaide, Australia: University Flinders

The Regulation of Indonesia Education Ministry of KTSP and Kurikulum 2013


ISBN: 978-602-74576-0-7

# DEALING WITH DIFFERENT LEARNING BEHAVIOURS: THE SCOPE OF NEURO LINGUISTIC PROGRAMMING IN THE CLASSROOM

ABDUL RASHEED P

*Assistant Professor, EMEA College of Arts and Science, Kondotty, Kerala, India, 673639*

DR. ZAINUL ABID KOTTA

*Assistant Professor& Head, Govt.College Malappuram, Kerala, India*

*Abstract*

Neuro Linguistic Programming, otherwise known as NLP, was developed by Richard Bandler and John Grinder in 1970s at University of Newyork. NLP helps develop an understanding of thoughts and behaviour and to teach people powerful tools and skills to enable them to be more in control of their own thoughts, feelings and actions and to make positive changes in their life. Recent interest in Neuro-linguistic programming or NLP (Hardingham 1998) has been as one of the resources to enhance effectiveness in classroom instruction. It has been well established in the framework of humanistic psychology since 1971. NLP claims to help achieve excellence of performance in language teaching and learning, improve classroom communication, optimize learner attitudes and motivation, raise self-esteem, facilitate personal growth in students, and even change their attitude to life (Thornbury 2001: 394) Richard Bandler and John Grinder claim that NLP can help with a wide range of issues from phobias and bad habits to depression, psychosomatic problems and learning disorders. NLP can improve and unlock communication and language skills which can make a huge difference to the classroom environment, they are far more likely to listen and participate encouraging a much more healthy learning environment for all involved. NLP can help teachers deal with challenging behaviour from students and relieve any difficult classroom situations they may face. Trying to deal with unruly students can take up an awful lot of precious teaching time and not only damage the education of the badly behaved student, but also disrupt the whole teaching environment for all the students.NLP can assist teachers by helping them to identify the best learning styles for their students and understanding how to apply these in the best way. The subtlest of changes in the use of certain words, phrase and tone of voice can vastly change the outcome. NLP also recognises the importance of non-verbal communication, particularly eye contact, posture, breathing and movement. A wonderful research done in this area during the summer of 2006, staff from four County Durham (UK) schools took part in a pilot project designed to explore the potential impact of a variety of NLP-based interventions on the development of teaching and learning. The results were eye opening with an impressive array of positive effects of the use of NLP-based interventions not only on the children, but also on the staff themselves. In short, this paper intends to shed light on the scope of NLP in the classroom especially to deal with different learning behaviours. There are so much ample evidence that NLP can be of help in the post modern classrooms.

## 1. Introduction

Neuro Linguistic Programming, also called NLP, was created by Richard Bandler and John Grinder in 1970s at University of Newyork. NLP has its roots in brain science and neurology, which is about the way the cerebrum works and how the mind can be prepared with the end goal of improvement. It is identified with 'left/right mind capacities, 'visual/sound-related/kinaesthetic' learning styles, different insight and different zones of exploration which are endeavoring to distinguish methods of learning whilst perceiving the significance of the individual learner. NLP builds up an understanding of considerations and behaviour and to show individuals their abilities to empower them to be more in control of their own musings, emotions and activities and to roll out positive improvements throughout their life.

Recent interest in Neuro-linguistic programming or NLP (Hardingham 1998) has been as one of the resources to enhance effectiveness in classroom instruction. It has been well established in the framework of humanistic psychology since 1971. NLP claims to help achieve excellence of performance in language teaching and learning, improve classroom communication, optimize learner attitudes and motivation, raise self-esteem, facilitate personal growth in students, and even change their attitude to life (Thornbury 2001: 394)

Richard Bandler and John Grinder guarantee that NLP can help with an extensive variety of issues


ISBN: 978-602-74576-0-7

from fears and negative behavior patterns to misery, psychosomatic issues and learning issues. NLP can offer educators some assistance in dealing with any troublesome classroom circumstances they might confront. Attempting to manage uncontrollable negative behaviours can take up a valuable time and not just harm the teaching and learning, additionally disturbs the entire classroom environment for all the students.NLP can help instructors by helping them to distinguish the best learning styles for their students and seeing how to apply these in the most ideal way. The subtlest of changes in the utilization of specific words, expression and manner of speaking can immeasurably change the result. NLP likewise perceives the significance of non-verbal correspondence, especially eye contact, stance, breathing and development.

**A Glimpse into NLP Principles**

1. The meaning of the communication is nothing but the response it elicit or brings about.
2. Conscious and unconscious are two levels of Communication
3. People with the most flexibility have the best chances of achieving the response they desire.
4. The more options we have, the greater our chances of success.
5. If you keep doing what you have always done, you will always get what you have always gotten.
6. If you know exactly what you want, it is easier to get it.
7. We cannot change others, we can only change ourselves.
8. Rapport means meeting someone in their model of the world.
9. The map is not the territory.

**Representational System**

The world around us is seen as our own perceptions and memories. NLP has termes our sensory channels as "representational" sysmtems alluding to the way we "re-present" or understand our outside surroundings. Since people are exposed to a lot of information, everybody has created their own' filters' . Such filter are grouped into Visual, Auditory and Kinesthetic (VAK) channels. In grown-ups and more seasoned young people the kinaesthetic channel is subdivided into a motoric or a an emotional preference. When we are genuinely relaxed we discover it simpler to get to and make utilization of each of these tangible channels. But when we are really stressed and strained we have a tendency to depend on our most comfortable filter(s). It is conceivable to see data in one channel, store it as a memory utilizing another channel and express it utilizing a third one. By seeing subtle elements of how individuals talk and act, we can better comprehend the frameworks they are utilizing at the time. This then empowers us to convey and show all the more adequately about our own self and of others, especially of students in education settings.

.

**The VAK System of NLP**

Listening to the language a man uses can enlighten us as to which the representational systems they are using the most. Visual individuals tend to utilize expressions, for example, "Is it clear?" or "Do you understand?" Auditory individuals will ask, "Does that sound OK?" or "I hear what you are stating." Kinaesthetic individuals tend to utilize activity or feeling words, for example, "Let me walk you through it." or "It simply doesn't feel right." When we start to see our own language patterns and in addition to listening to individuals around us, we get to be mindful of these examples of patterns easily. It has extreme importance in Education system. When it comes to the application of NLP in classrooms to deal with positive and negative behavior, VAK system plays a crucial role. The language pattern used by the student sheds light upon the representation system of the students. A conflicting teaching environment with the representational system of the students, of the teacher or of the school, will create negative behavior among students. An expert NLP practitioner can easily unwind complex behavioural problems of students within a few hours.

**Eye Accessing Cues**

Eye movements of students ( also called 'eye accessing cues' ) points at which channel a person is currently using to access information. course for a more drawn out timeframe.

**Visual and Audio Accessing**

Admiring the vision to the left means recalling a picture or words and looking at your right means developing or envisioning a picture or words. Looking to the left shows recollecting a sound or


ISBN: 978-602-74576-0-7

words. Looking to the right means building or envisioning a sound or words. Looking down to one side means listening to an internal dialog.

**Negative Behaviors and Positive Behaviors**

There are number of ways in which the student may carry on in a troublesome way to create tension in the classrooms. Such behaviours are called negative behaviours. Some are minor and regularly barely noticeable, yet some go past impoliteness. Negative behaviours are delay, dozing in class, and acquiring and misusing mobile phones or other electronic gadgets.

An effective management of negative behaviours classroom might guarantee a compelling instructing and learning process in classroom. Great administration of student' order in classroom by educators will ensure a smooth and effective flow of the instructing and learning (Charles, 2005; Morrison, 2009). educators these days are without a doubt confronting different difficulties relating to student' mentalities and behaviours. The primary motivation behind emphasising good discipline management in classroom is to encourage student to make use teaching aids, learning materials and as well as their peers in an organized way(Miller, 2006; Thornberg, 2009). Educators assume a critical part in dealing with the control in classroom. Instructors that have aptitudes in overseeing discipline in classroom are fit in taking care of student' feelings and practices to guarantee that they can take an interest in the educating and learning process effectively and hence to accomplish the aims and objectives of learning in classroom (Cameron, 1998; Charles, 2005; Morrison, 2009). The following are disciplinary issues happen in the classroom out of students negative behaviours are making noise, rebellion, day dreaming, vandalism, strolling heedlessly around the classroom without authorization and decline to partake in the instructing and learning process. Instructors might successfully utilize the methodology of NLP to tackle all these negative behaviours and subsequent disciplinary problems.

**Four Types of Negative Behaviours in Classrooms**

In the book written by Wilbert J. McKeachie and Marilla Svinicki "McKeachie's Teaching Tips: Strategies, Research, and Theory for College and University Teachers, Fourteenth Edition," describes four types of challenging behaviors that students may exhibit in classroom at some point during the school term. They classified into following titles.

1) The attention-seeking, discussion-dominating student. These students want to be heard. Whether or not these students have something of substance to add (and very often, these "discussion dominators" do make valuable points), it's important to maintain a balanced discussion, so that all students feel comfortable adding to the conversation.

2) The inattentive student. Some students are apt to drift off into their own thoughts, stare into their smartphones, or talk with classmates in the middle of lecture. Not only do they miss out on what teacher is saying, they often disrupt the students around them as well.

3) The unprepared student. some students make a habit of skipping the reading, viewing, listening, or other assignments teachers intended as pre-class work.

4) The uncivil and disrespectful student. Student civility lays the groundwork for respectful and productive class sessions. If even one student disrespects the time, feelings, and thoughts of his teacher and their fellow students, their rude behavior has a negative impact on the entire class.

**How NLP Helps in Dealing Negative Behaviours**

Nuero Linguistic Programming can do wonders with learning behaviours. Student can be motivated with their own natural motivation strategies. They can learn the structure of interest and apply it to any subject. NLP helps acquire learning strategies for all academic tasks. It helps them learn to accept feedback for improvement purposes rather than feel like a failure. It gives insights into mind works of students and teach them how to use their mind in school in a way that really works.

NLP gives us the technology to elicit all of these learning patterns and codify them and teach them to others. NLP gives us solution to find out, how any student is blocking his or her self and to figure out how to help them. It helps strengthening our educational processes and systems. It offers the magnificent opportunity to positively affect childrens lives.


ISBN: 978-602-74576-0-7

**NLP Helps to Identify the Underlying Structure of Student Behaviours**

NLP practitioners like Don Blackerby, & John Bartlett illustrated the application of NLP in education system with examples. According to them, NLP can easily be explained through the use the skills as propounded by NLP such as modeling and the use of Logical Levels of experience. Logical levels of experience are as follows: Spiritual/Greater System; Identity; Beliefs/Values; Capability; Behavior; and Environment. Logical levels can be detected by the language patterns of the student. So, for example, if a student is complaining about his or her spelling lessons, it would sound like the following depending upon which level the student was focusing. Don Blackerby, & John Bartlett gives an example as follows. Logical Level Statement comes like this "the school is dumb for making us learn spelling words." Identity- "I am dumb." Beliefs/Values "Learning spelling words is dumb."Capability "I don't know how to learn my spelling words." Behavior- "Should I write my spelling words 5 or 10 times?"

So, as the student is describing his or her school struggles, teacher is listening through the logical levels template to discern at which levels the issues are. Once the teacher determines that, then the teacher can use NLP modeling skills to determine more specifically what the subjective experience is that needed to be adjusted. A large number of students come up with learning strategies that don't work or they are inefficient and ineffective. Since teachers presuppose that they know how to learn teachers do not offer alternative ways and students keep doing what they have always done and keep getting the same bad results. Many take this personally and assume something is wrong with themselves. They start to devalue learning and school. Or, they move it to the identity level and start to believe that they are dumb or a bad student.

**NLP and Learning Disabilities**

NLP offers tools for students who have been diagnosed with learning disabilities. The NLP modeling skills provides the very precise techniques that help identify the different style of subjective experience of the students with learning disabilities. NLP focuses at capability level in the form of thinking or learning strategies. The main thing that is needed is the addition or deletion of a simple step in their learning strategy. Once the step is implemented or addressed, learning would occur.

Dyslexia

One of the learning disabilities often heard is Dyslexia. In which, the student will not be able to discern the difference between a b and d, or a 6 or 9 or a p or q, as examples. It is found that many of them doing was not connecting the sound of the letter or number with the image. When somebody would say "Draw me a b" the sound did not bring forth the image for the student to write it. It is easily done by connecting sound and image.

**NLP Tool 'Framing and Re-framing'**

A frame in NLP is the way we view a person, place or experience; the angle at which we view it and the meaning that we give to it. According to NLP 'whoever controls the frame, controls the game'. If your classes are badly behaved, you may well have unwittingly surrendered the learning frame to the pupils and need to re-frame their expectations and experience of your lessons. One of the presuppositions of all of these techniques is that we must learn to take responsibility for the results that we create, both in our classes and in life. If something is going wrong in the students behaviour, have the sensory acuity to understand the feedback that you are getting and the behavioral flexibility to do something different. Most kids that come to school want to learn, whether they realize it or not.

**NLP Tool 'Rapport'**

Interaction in the classroom refers to the conversation between teachers and students, as well as among the students, in which active participation and learning of the students becomes vital. Conversations are part of the sociocultural activities through which students construct knowledge collaboratively. Teacher–learner interaction produces a 'therapeutic effect' of improved learner self-esteem, better involvement in classroom procedures, greater motivation, the lowering of learners' individual defenses, and an increasing sensitivity to knowledge (Thornbury 2001; O'Connor and Seymour 1993). NLP offers some techniques like establishing a rapport between the teacher and learner/s (building an interpersonal contact with the learner through support, interaction, and empathy). Modelling the learner (offering strategies for the learners to achieve better results). Creating a learner filter (monitoring


ISBN: 978-602-74576-0-7

'correct'/'incorrect' knowledge or behaviour), pacing with the learner (achieving harmony of teaching and learning in rate, style, and production), leading the learner (introducing a cognitive challenge for the learner), elicitation with learner (guiding the learner to an output), calibration of the learner (recognizing individual differences in learners), re-framing the approach (stopping unproductive teaching strategies, and providing better alternatives so as to improve learning opportunities), collapsing an anchor (reinforcing learner achievement by emphasizing success). Thus NLP can also be used to enhance interactions. Rapport is the best technique of NLP to enhance interactions.

**NLP is a Useful Technique in Classroom**

There are always new techniques and practices becoming available to teachers as the education system is constantly evolving and NLP is one that is becoming more and more widely used amongst education professionals today at European Countries.

It is said that NLP can help with a wide range of issues from phobias and bad habits to depression, psychosomatic problems and learning disorders. Teacher should be capable of communicating in an easy and effective way to every participant of the classroom. NLP can improve and unlock communication and language skills which can make a huge difference to the classroom environment . This type of NLP can also be very helpful to students in enabling them to identify their potentials and to get rid of negative behaviors .
NLP can help teachers deal with challenging behaviours from students. NLP can ensure teachers are better equipped to deal with these types of situations and gives them the resources and tools to take control during testing times and address and eradicate poor disruptive behaviours.

Finding a learning style that suits the student is a key part of good education. NLP can assist teachers by helping them to identify the best learning styles for their students and understanding how to apply these in the best way. Part of good classroom management involves being able to engage and build rapport with pupils so as to build a trusting and supportive learning environment, which will help to build students' confidence and attitude to education.

A wonderful research done in this area during the summer of 2006, Teachers from four County Durham (UK) schools took part in a pilot project designed to explore the potential impact of a variety of NLP-based interventions on the development of teaching and learning. The results were eye opening with an impressive array of positive effects of the use of NLP- not only on the children, but also on the staff themselves.
In short, there is ample scope of NLP in the classroom especially to deal with different learning behaviours. But very little academic research has taken place in this area. Academicians and should come forward to explore the research avenues in NLP to explore it maximum in the field of education.

**References**

Barnes, D. Exploratory talk for learning. *Exploring talk in schools*. Los Angeles, London, New Delhi: SAGE, 2008.
Berne, E. *What do you say after you say hello?.* New York:Grove, 1972.

Bloom, B. S. *Taxonomy of educational objectives, handbook I: The cognitive domain.* New York: David McKay Co Inc. 1956.

Cullen, R. 'Teacher talk and classroom context'. *ELT Journal* 52/3: 1998.

Cullen, R. 'Supportive teacher talk: the importance of the F-move'. *ELT Journal* 56/2:
2002, 117–27.

Donato, R., & McCormick, D. (1994). A sociocultural perspective on language learning strategies: The role of mediation. *The Modern Language Journal, 78*(4), 453-464. http://dx.doi.org/10.2307/328584

Fletcher, M. *Teaching for Success. The brainfriendly revolution in action!* Folkestone: English Experience, 2000.

Gardner, H. *The unschooled mind: How children think and how schools should teach.* New York: Basic Books, 1991

Garratt, T. *The Effeective Delivery of Training Using NLP*. London: Kogan Page, 1997.


ISBN: 978-602-74576-0-7

Hardingham, A. *Psychology for Trainers*. Wiltshire: The Cromwell Press, 1998.
Hall, J.K. & Walsh, M. Teacher-student interaction and language learning. *Annual Review of Applied Linguistics*, 22, 186-203, 2002.
James, M. (ed.) (1977). Techniques in Transactional Analysis: AnIntroduction to its Theory and Practice. PITMAN *Br J Soc Work.*1982.
Jong, C.D. & Hawley, J. Making cooperative learning groups work. *Middle School Journal,* 26 (4), 45-48, 1995.
Kang, S. J. Dynamic emergence of situational willingness to communicate in a second language. *System*, 2005. *33*(2), 277-292. http://dx.doi.org/10.1016/j.system.2004.10.004

Kumaravadivelu, B. 'Maximising learning potential in the communicative classroom'. *ELT Journal*, 1993. 47/1: 12–18.

Long, M. (Linguistic and conversational adjustments to non-native speakers. *Studies in Second Language Acquisition,* 1983, *5*(2), 177-193.
Luk, J.C.M. & Lin, A.M.Y. Classroom interactions as cross-cultural encounters. *Native speakers in EFL classrooms.* Mahwah, New Jersey, London: Lawrence Erlbaum Associates, Publishers, 2007.
Lynch, T. 'Questioning roles in the classroom'. *ELT Journal*1991, 45/3: 201–10.

O'Connor, J. and J. Seymour. *Introducing NLP. Neuro-Linguistic Programming*. London: Thorsons, 1993.


ISBN: 978-602-74576-0-7

# THE USE OF THINK PAIR SHARE AND TWO STAY - TWO STRAY TECHNIQUES IN IMPROVING STUDENTS' ABILITY IN SPEAKING SKILL

APRILIA RIYANA PUTRI

*English Education Department, Islamic University of Nahdlatul Ulama, Jalan Taman Siswa Tahunan Jepara,59427, Indonesia*

Abstract

This research was aimed to investigate how the study of speaking was developed through Think Pair Share and Two stay- Two Stray techniques and to find out the improvement of students' ability in speaking. For this purpose, 25 students of the third semester students of English Education Department Program of Islamic University of Nahdlatul Ulama Jepara were taken in the academic year of 2015/2016. A classroom action research was conducted in which consisted of two cycles through the stages of planning, action, observation, and reflection. The speaking tests, the observation note, and the questionnaire were taken as the data. The result of this research showed the students' ability in speaking improved significantly. They were more enjoyable and enthusiastic in joining speaking class. They could learn together with their team and understanding the material and conveying it to the others well. They were also more confident and brave to tell what they wanted to tell the others without any doubt and pressuring from their friends in the classroom. They tried to give some suggestions and also good comment to each other when they practiced Think Pair Share technique, and in Two Stay -Two Stray technique all students are active to tell each other, and it was amazing technique for making the students more active in practicing speaking and also they are more enthusiastic in learning how to speak well. In some cases, they even argued their argumentation attractively. While from the questionnaire which was distributed showed that more than 80 % students felt that the use of Think Pair Share and Two Stay - Two Stray techniques helped them easily in developing their ability in speaking skill. And more than 90% students agreed those techniques facilitated them on having the accountability in understanding and conveying the material that they had learnt easily to the others. Studying in a group or in a team proved that the students enjoyed more in joining the English class. So, it is suggested that the English lecturers should use the types of cooperative learning in teaching language skills.

## 1. INTRODUCTION

Speaking is one of skill in English. It is including into difficult skill to be learned for students because of many reasons, such as feeling nervous, lack of confidence, being afraid and etc. There have been many definition of speaking. According to Oxford Dictionary of current English (2009: 414), speaking is "the action of conveying information or expressing ones' thoughts and feelings in spoken languages." According to Harmer (2001) adds that speaking happens when two people are engaged in talking to each other and they are sure that they are doing it for good reason. Their reason may be that they want to say something, they have some communicate purposes, and they select from their language store.

Teaching speaking is not as easy as teaching Indonesia language to Indonesian students because English is as second language for the students. They do not practice to speak English when they are outside at campus; it is like at home, at boarding house or at canteen. They just try to practice to speak English when they are at classroom, and it is not effective for improving their ability in speaking. Speaking is the way to interact, share the idea or communicate with other people. We have to make sure when the speaker speaks to the listener, it is understandable by the listener or not. According to Hughes (1993), the teaching and learning of speaking is the development of the ability to interact successfully in that language and this involves comprehension as well as production.

The teaching of speaking usually makes the students feeling afraid in joining the class since the process of teaching and learning conducted is not an active activity. They were usually asked to speak up based on the topic given by the lecturer. Those activities can actually be modified into the interesting and challenging one so that it will be an active one and stimulate them to speak. The teaching- learning process of speaking can be based on student- center learning in which the lecturer can create the class through team work. By this one, the student could optimize their ability in speaking (Sumardiyani, 2007: 11). Concerning to the cooperative learning (CL) used in the class; the lecturer should choose the technique to achieve the speaking goal. Cooperative learning will be defined as students working together in a group small enough that everyone can participate on a collective task that has been clearly assigned. Moreover, students are expected to carry out their task without direct and immediate supervision of the teacher. The study of cooperative learning should not be confused with small groups that teacher often compose for the purpose of intense, direct instruction- for example, reading groups ( Cohen, 1994, p.3). Both of the various CLs in order to stimulate and facilitate them


ISBN: 978-602-74576-0-7

in speaking are Think- Pair Share and Two Stay-Two Stray.

Think- Pair- Share is a cooperative learning strategy that can promote and support higher level thinking. The teacher or lecturer asks students to think about a specific topic, pair with another student to discuss their own thinking, and then share their ideas with the group. There are some steps in doing Think- Pair- Share strategy, they are: decide on how to organize students into pairs, pose a discussion topic or pose a question, give students at least 10 seconds to think on their own (think time), Ask students to pair with a partner and share their thinking and call on a few students to share their ideas with the rest of the class. The students, in this case, have the same opportunity and responsibility to learn, share, present information in their team in turn. The strength of this technique is each student has the same position, opportunity, and responsibility as the others. No matter with the student who has either good or low ability in English. They are not different in the Cooperative Learning class. In this position, the student who is low in English will have good confidence to learn and convey his/her knowledge to the others because of that position. Besides that, the lecturer cannot also differentiate them based on their ability. Because of that condition, this situation makes the students feel more comfortable in learning English.

The benefits of Think-Pair-Share are: (1). When the students have appropriate "think time", the quality of their responses improves. (2). Students are actively engaged in the thinking. (3). Thinking becomes more focused when it is discussed with a partner. (4). More of the critical is retained after a lesson if students have an opportunity to discuss and reflect on the topic. (5). Many students find it safer or easier to enter into a discussion with another classmate, rather than with a large group. (6). No specific materials are needed for the strategy, so it can easily be incorporated into lessons. (7). Building on the ideas of other is an important skill for students to learn.

Learning together, for some students is a good way to improve their English. Most students of English Department are from different background of school, but most of them are located in the village. That is the way; their background Knowledge of English is different. Even some of them do not like English, so it can be imagined their motivation in learning English is still low. To minimize their lack of confidence in learning English, the use of Think-Pair-share can be an alternative technique of teaching. Besides that, to improve the competition among them, the lecturer can also use two stay-two stray (TSTS) in order they compete each others in answering the question given.

Two stay-two stray is a technique that can be used by all lessons and in all levels. This technique is cooperative learning system that aimed students able to cooperate, responsible, helping to solve the problems each other and helping increasing quality each other too. This technique practices students to related social well. Lie (in Yusritawati:2009,14) stated that "two stay- two stray structure teaches a group to divide learning result to other group". Two stay- two stray is an interactive process which can be used to build knowledge or summarize learning through sharing.

## 2. RESEARCH FINDINGS METHODOLOGY OF THE RESEARCH

### 2.1. *Research Design*

The researcher applied a classroom action research consisted of two cycles. Each cycle contained planning, action, observation, and reflection.

### 2.2. *Subject of the Research*

The subject of the research was the English students of UNISNU in the academic year of 2015/2016. There were 25 students involved in this research.

### 2.3. *Technique of Data Collection and Data Analysis*

The data were got through the observation, questionnaire, and the test. The observation was done to observe the activities done by the student during teaching and learning process. Questionnaire was given to the students in order to know their response and attitude in joining the English class by applying Think-Pair-Share and Two stay- Two Stray techniques. While the test was aimed to measure the students knowledge and mastery in Speaking English through the application of Think- Pair-Share and Two stay- Two stray techniques.

## 3. RESEARCH FINDINGS

Based on the initial condition of the students, it could be seen that the students' ability in speaking English was very low. Some students even were not dared to speak English. It could be understood since some of them do not like English. They took English Department because of some reasons. For example, their parents did not allow them to choose some good universities in big city because they did not have much money. Then, most of students also come from some schools which have not good quality and their English teachers were not mastery enough in


ISBN: 978-602-74576-0-7

teaching English to them, so they do not have good knowledge in English. The students also have some various intelligences. Consequently, their ability in English is not maximizing yet. Therefore, the lecturer should encourage and facilitate them in improving their ability in English, especially in speaking skill.

Based on the pre observation done by the researcher, when the lecturer asked them to tell their experience in English, they preferred to keep quiet and did not say anything. They felt confuse to speak; it happened because they were afraid to make mistake and they just have little vocabularies in their memories. Sometimes, they did not understand too when the lecturer explained in all using English. It was terrible in which they could not respond the others in English. In fact, as the English students, speaking in English is a need for them so they can communicate with others well.

### 3.1. *Students' Ability in Speaking English*

This study was purposed to investigate the improvement of the students' ability in speaking English by applying

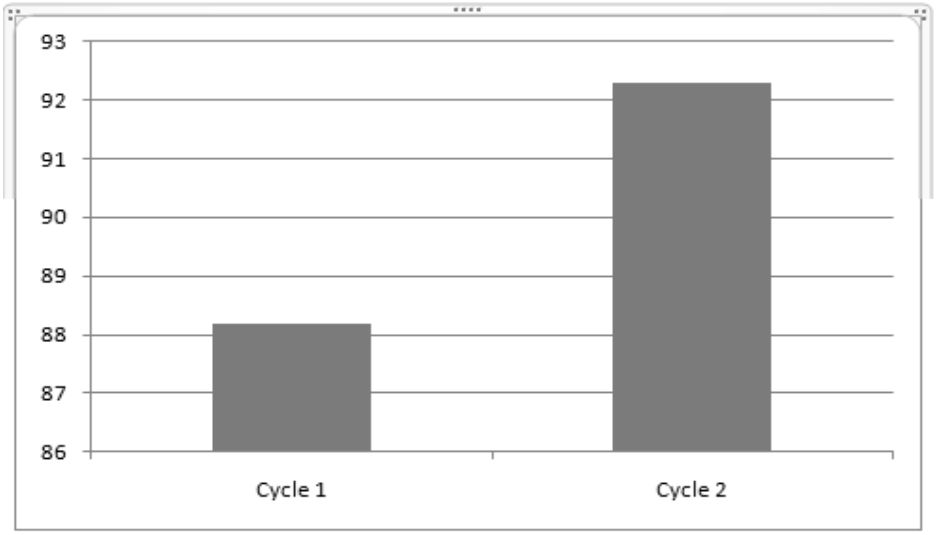



Figure 1. The Average Score of Speaking Test in Cycle 1 and Cycle 2.

Think- Pair Share and TSTS techniques. Based on the stages conducted by the researcher in the classroom action research, it can be seen that the application of Think Pair Share and Two Stay- two Stray techniques can improve students' ability in speaking. In facilitating the students whose problem in speaking English, the researcher had provided some topics based on from the book entitled speaking of Values 1 which was given by the researcher to the students to be discussed and learnt with their groups. The aims of giving the topics, was to make them easier in conveying some information to others. It was simpler ways for them to improve their speaking because they got the topics and some information from the book, so they were easier to share their ideas and using vocabularies easily because they had to read first and then tell about their thinking in turn directly. By reading, of course their vocabulary could improve (Mikulecky et.al, 2004: 3). This situation made them easy of communicating in English since they knew what they wanted to say.

From the result of cycle 1 and cycle 2, it showed that the students' ability in speaking improved. It could be seen from the result of speaking test in the Figure 1.

Based on the data above, it can be seen that there was an improvement of students' ability in speaking English. From cycle 1, the average score of speaking was 88.2. While the average score of cycle 2 was 92.3. It means that there was 4.1 % the students' improvement of speaking English.

From the data of cycle 1 and cycle 2, it proved that the application of Think Pair Share and Two Stay- Two Stray techniques helped so much in improving the students' ability in speaking. Especially for those who were not dared in speaking English in front of class. The use of Think Pair Share and Two Stay- Two Stray techniques facilitated them in organizing how to speak. Through those techniques, the students had responsibility to learn and share what they got.

While from the observation, it could be seen that during teaching and learning process, the


ISBN: 978-602-74576-0-7

students seemed enjoyed and enthusiastic in group working. In applying Think Pair Share techniques, the students practice how to speak in turn and they have different idea although in same topic, it gave them a different experience in learning something. In applying two stay – two stray techniques, the students got an experience in changing of the group member. It was something different for them because they have to move to another group, so they got some information from another group with different topics. By using those techniques, they realized to their own position and responsibility to learn and share what they had learnt from the others.

Based on the questionnaire distributed to them, there were more 80% students felt the application of Think Pair Share and Two Stay- Two stray techniques helped them easily in improving their ability in speaking English. There were some steps that must be done so that they dared to speak with confidence in front of the others. More than 90% students also agreed those techniques facilitated them on having the accountability in understanding and conveying the material that they had learnt easily to the others. There were some learning values got through those techniques, just like they learnt how to cooperate well, being autonomous, responsible, and confidence.

## 4. CONCLUSION AND SUGGESTION

### 4.1. *Conclusion*

Based on the research findings, there are some conclusions formulated as follows:

1. The application of Think Pair Share and Two Stay- Two Stray Techniques helped the students in facilitating and improving their ability in speaking English. The students were dared to speak English with confidence in front of the others.
2. The use of those techniques gave the learning values to the students to cooperate well, to be autonomous, responsible, confidence, and cooperative.
3. The techniques stimulated the students to have a good motivation in joining speaking class.

### 4.2. *Suggestion*

Based on the research findings, it is suggested that the lecturer should use the techniques of Think Pair Share and Two Stay- Two Stray to teach in speaking class. Besides that, she/ he should combine any kind of Cooperative Learning (CL) in order to be more interesting, challenging and enjoyable.

**Acknowledgments**

Praised be to Allah the almighty who has given the great blessing so that this research can be finished. I give my appreciation to my beloved campus, Islamic University of Nahdlatul Ulama, Jepara for give me a chance to join in this International Conference, INCOTEPD.

My appreciation also goes to English Education Department students, especially for third semester, class A3 in the academic year 2015/ 2016 for their participation in the study.

**References**

1. Fauziati, Endang. *Introduction to Methods and Approaches in Second or Foreign Language Teaching.* Surakarta: Era Pustaka Utama. (2009)
2. Harmer, Jeremy. *The practice of English Language Teaching*. England: Longman. (2001)
3. Harmer, Jeremy. *How to teach English*. England: Pearson Longman. (2007)
4. Joyce, Bruce, et.al. *Models of Teaching*. Boston: A Pearson Education Company. (2000)
5. Mikulecky, Beatrice S. and Jeffries Linda. *More Power Reading.* New York: Longman. (2004)
6. Mills, Robin. *Speaking of Values 1*. USA: Pearson Longman. ( 2006)
7. Nunan, David. *Practical English Language Teaching.* New York: The McGraw – Hill Companies,Inc. ( 2003)
8. Sumardiyani, Listyaning et.al. Speaking for Instructional Purpose. Semarang: IKIP PGRI Semarang Press. (2007)


ISBN: 978-602-74576-0-7

# FOSTERING FRESH GRADUATE STUDENTS' CONFIDENCE IN SPEAKING ENGLISH (AN ACTION RESEARCH TO STUDENTS OF MURIA KUDUS UNIVERSITY, CENTRAL JAVA, INDONESIA)

Farid Noor Romadlon
Muria Kudus University
farid.noor@umk.ac.id

*Abstract*

Welcoming the ASEAN Economic Community and globalization, people need to have a good communication skill. Being able to speak English is one of important qualification in this skill and as global citizen. This study focused on fostering fresh graduate students' confidence in speaking English. So, students have good performance in speaking. There were thirty (30) students from first semester of English Education Department who joined Intensive Course class as the subject. They had poor motivation to speak English since English is a foreign language which is not exposed in their environment.

This study used Three Communicative Activities technique in eight successive meetings totally. It was done in two cycles (four meetings for each) since there were some activities should be improved in the first session (cycle).Oral test was administered to find the quantitative result and observation conducted to strengthen the finding.

The result indicated that Three Communicative Activities improved students' confidence in speaking English. They had significant progress in their performance in the class. The technique which allowed students to have more spaces to explore and express their ideas to their friends increased their confidence in their performance. The group or cooperative activities stimulated students to think critically in the discussion and promoted their confidence to talk more.

***Key words***: Students' confidence, Three Communicative Activities, Speaking

## Introduction

Since English as foreign language in Indonesian language teaching, the main skill should be mastered first by the students is speaking skill. Speaking is often thought of as a "popular" form of expression which uses the unprestigious colloquial register: literary skills are on the whole more prized. It deserves much attention, especially in second language. Learners need to be able to speak with confidence in order to carry out many of their basic transactions. It is the medium of social solidarity, social ranking, professional advancement, and business. Speaking is also a medium through which much language is learnt and which for many is particularly conducive for learning. However, most of language learners still do not realize since English is a language, so speaking will be the main skill in mastering it.

Speaking as one of the four major skills in English is the most important skill in mastering English proficiency. Kidds in *Guides and materials: Oxford union rough guide to debating 1999-2000* states that in the world today, increasing emphasis is placed on the spoken word. Presentation skills are an important asset in any walk of life. It shows how valuable mastering speaking ability in the world today is. Ramelan (1991: 2) states poor mastery of English speaking of the students is the result of the old ways of teaching which do not give stress to the mastery of the spoken language. It means that the teaching techniques used by the teachers have a big role to the student's ability. Language teaching should be emphasized on the meaning understanding not the language structure. The learning process in class should be oriented to the real environment.

This is what has been done to promote new students of Muria Kudus University to speak English. Fresh graduate students have low confidence and motivation to speak. Transition period from high school students to university students may cause this condition. Adapting to new environment, new friends, and new classes make them feel doubt, shy, and afraid to speak in English (especially in the classroom). During the first three months of odd semester, most of fresh graduate students (first semester) were silent and tend to be passive in the classroom. It was difficult to feed them up to talk in English. The data of speaking test also indicates their low proficiency in Speaking since they have less motivation and confidence.

To overcome it, students are exposed and treated by using one of techniques in teaching Speaking. Communicative activities which include an information gap, a jigsaw puzzle, games, problem-solving, and role-playing is an appropriate technique to improve speaking skill. Hedge (2008) supported this idea by stating activities that can assist better speaking skills are free discussion and role-playing. Language activities are important factors in teaching language for communication. Activities help teacher and students to create


ISBN: 978-602-74576-0-7

interaction in the language classroom. Additionally, communicative activities can motivate the learners and establish good relationships between the teacher and the students as well as among the students thereby encouraging a supportive environment for language learning. The information above encouraged the researcher to apply Three Communicative technique (discussion – problem solving – and role playing) in teaching process to promote students' confidence and motivation in speaking so their ability will be improved.

**Objective**

The research is conducted to improve new students' speaking proficiency of the English Department, Education Faculty, Muria Kudus University which promote their motivation and confidence to speak by using Three Communicative activities (discussion – problem solving – and role playing).

**Research Design**

This research is an action research which takes class A of English Education Department first semester students as the subject. There are thirty students in the class. It was designed for four meetings and begun by doing preliminary research and came to the other second four meetings since the first session (cycle) had some aspects should be evaluated. To obtain the data, oral test was administered and observation was done during the treatment (teaching process).

**Discussion**

In this part, some issues related to the topic will be discussed further. They are among others; Speaking, Teaching Speaking, and Three Communicative activities in Teaching.

**Speaking**

Speaking is one of the important skills which have to be mastered by all students. As one of the major skills needed in the world communication today, speaking emphasizes in oral performance. It is a productive skill that can be directly and empirically observed. Brown (2004:172), states that speaking consists of some spoken components used also as the assessment. They are grammar, fluency, pronunciation, vocabulary use, and comprehension (content). Those components give a big role for non native English speakers. According to Chaney, speaking is .the process of building and sharing meaning through the use of verbal and non-verbal symbols, in a variety of contexts. It is a crucial part of the language learning process, and it is also the one skill, which has often been neglected in English as Foreign Language classroom. Oral performance is a priority in everyday English communication. Speaking seems intuitively the most important of all the four language skills (listening, speaking, reading, and writing) since people who know a language are referred to as a 'speaker' of that language, as if speaking included all other skills of knowing that language (Ur, 1996). In other words, a learner's end product of language learning is to be capable of speaking the target language fluently.

Bygate (1987) explains that knowing or learning a language centrally involves being able to 'speak' it, or the common claims that language pedagogy and linguistics prioritize the study and teaching of the vernacular. Within an applied linguistic or teacher education program, the study of speech also needs to develop an understanding of pedagogical options in promoting oral abilities. This implies developing in students a critical awareness of the range of approaches for the teaching of speaking, from the more controlled, teacher-centered approaches that are available, to the more unscripted, exploratory approaches that are being developed, in which the teacher's role is more that of setting challenges, facilitating work, monitoring progress, and providing formative and where necessary summative feedback. The important focus concerns the impact of oral tasks in channeling students towards various aspects of spoken language and their use, notably: distinct discourse patterns; distinct sets of lexico-grammatical features; distinct interaction patterns; different modes of processing, encouraging students to concentrate as needed on the fluency, accuracy or complexity of their speech. From the learner's perspective, speaking is the most complex and difficult task among the language skills since their preparations should include knowledge about the language and the skills involved in using it (Bygate, 1987). Wang (2003) conducted a survey of Taiwanese college students in freshman English classes and she noticed that within the four language skills, speaking ability was the one that the students thought they should improve the most (83.7%). This meant that many students thought their oral skill was deficient. Also, some studies indicated that Asian students indeed had comparatively high anxiety in English learning (Na, 2007; Tsai, 2003) since most of them lack speaking practice in the target language both inside and outside of the classroom. This limited real-life practice and experience appears to


ISBN: 978-602-74576-0-7

have eroded their confidence and weakened their willingness to speak. This phenomenon makes teachers have to explore their minds to make students effectively able to share their point of view by speaking. One of the ways to improve students' speaking is by applying the proper technique for them.

**Teaching Speaking**

What is meant by teaching speaking is to teach English language learners to :

1. Produce the English speech sounds and sounds patterns.
2. Use words and sentence stress, intonation patterns and the rhythm of the second language.
3. Select appropriate words and sentences according to the proper social setting, audience, situation and subject matter.
4. Organize their thoughts in a meaningful and logical sequence.
5. Use language as a means of expressing values and judgments.
6. Use the language quickly and confidently with few unnatural pauses, which is called fluency (Nunan 2003).

Natasa (2006) says that teaching young learners constantly have to keep the fact that what teachers have in front of them is a mixed class with varied abilities, expectations, motivation level, knowledge and different learning styles. Thus, teachers need to vary their approaches and offer as much opportunity as possible to make the whole classes find a little something to hold on to, expand and grow. Clear and correct pronunciation is a vital importance for young learners since they repeat exactly what they hear. At an early stage, what has been learned is difficult to change later on. Activities such as dialogues, choral revision, chants, songs, debates, poems and rhymes make the students speaking abilities grow, their pronunciation gets better and their awareness of the language improved. Interaction is an important thing of learning especially in teaching speaking. Therefore, increased oral emphasis should be included in our teaching to give the students as much speaking time as possible. Communicative language teaching and collaborative learning in this case serve best for teaching process. They are based on real life situations that require communication. By using this method in ESL classes, students will have the opportunity of communicating with each other in the target language. In brief, ESL teachers should create a classroom environment where students have real-life communication, authentic activities, and meaningful tasks that promote oral language. This can occur when students collaborate in groups to achieve a goal or to complete a task.

There are many activities in promoting teaching speaking. As Hayriye Kayi (The Internet TESL Journal, Vol. XII, No. 11, November 2006) infers there are thirteen activities to promote speaking, they are:

a. **Discussion**

After a content-based lesson, a discussion can be held for various reasons. The students may aim to arrive at a conclusion, share ideas about an event, or find solutions in their discussion groups. Before the discussion, it is essential that the purpose of the discussion activity is set by the teacher. In this way, the discussion points are relevant to this purpose, so that students do not spend their time chatting with each other about irrelevant things.

b. **Role Play**

Students pretend they are in various social contexts and have a variety of social roles. In role-play activities, the teacher gives information to the learners such as who they are and what they think or feel. Thus, the teachers tell the student that "You are David, you go to the doctor and tell him what happened last night, and." (Harmer, 1984)

c. **Simulations**

Simulations are very similar to role-plays but what makes simulations different than role plays is that they are more elaborate. In simulations, students can bring items to the class to create a realistic environment. For instance, if a student is acting as a singer, she brings a microphone to sing and so on.

d. **Debating**

Debating is an interactive activity which involves students totally in the whole processes. Students are asked to expose issues and elaborate their arguments in two point of views, negative and positive. Thus, students have to produce their sentence and express their idea.

e. **Information Gap**

In this activity, students are supposed to be working in pairs. One student will have the information that other partner does not have and the partners will share their information. Information gap activities serve many purposes such as solving a problem or collecting information. Also, each


ISBN: 978-602-74576-0-7

partner plays an important role because the task cannot be completed if the partners do not provide the information the others need.

f. **Brain Storming**

On a given topic, students can produce ideas in a limited time. Depending on the context, either individual or group brainstorming is effective and learners generate ideas quickly and freely. The good characteristic of brainstorming is that the students are not criticized for their ideas so students will be open to sharing new ideas.

g. **Storytelling**

Students can briefly summarize a tale or story they heard from somebody beforehand, or they may create their own stories to tell their classmates. Story telling fosters creative thinking. It also helps students express ideas in the format of beginning, development, and ending, including the characters and setting a story has to have.

h. **Interviews**

Students can conduct interviews on selected topics with various people. It is a good idea that the teacher provides a rubric to students so that they know what type of questions they can ask or what path to follow, but students should prepare their own interview questions. After interviews, each student can present his or her study to the class. Moreover, students can interview each other and "introduce" his or her partner to the class.

i. **Story Completion**

For this activity, a teacher starts to tell a story, but after a few sentences he or she stops narrating. Then, each student starts to narrate from the point where the previous one stopped. Each student is supposed to add from four to ten sentences. Students can add new characters, events, descriptions and so on.

j. **Reporting**

Before coming to class, students are asked to read a newspaper or magazine and, in class, they report to their friends what they find as the most interesting news. Students can also talk about whether they have experienced anything worth telling their friends in their daily lives before class.

k. **Playing Cards**

In this game, students should form groups of four. Each suit will represent a topic. For instance: diamonds represent earning money, hearts represent love and relationships, spades represent an unforgettable memory, and card represent best teacher. Each student in a group will choose a card. Then, each student will write 4-5 questions about that topic to ask the other people in the group. For example: if the topic "diamonds: earning money" is selected, here are some possible questions: .Is money important in your life? Why?. or .What is the easiest way of earning money?. or .What do you think about lottery?. Etc. However, the teacher should state at the very beginning of the activity that students are not allowed to prepare yes-no questions, because by saying yes or no students get little practice in spoken language production. Rather, students ask open-ended questions to each other so that they reply in complete sentences.

l. **Picture Narrating**

This activity is based on several sequential pictures. Students are asked to tell the story taking place in the sequential pictures by paying attention to the criteria provided by the teacher as a rubric. Rubrics can include the vocabulary or structures they need to use while narrating.

m. **Picture Describing**

For this activity students can form groups and each group is given a different picture. Students discuss the picture with their groups, then a spokesperson for each group describes the picture to the whole class. This activity fosters the creativity and imagination of the learners as well as their public speaking skills.

**Three Communicative Activities in Teaching Speaking to Promote Students' Confidence**

**Preliminary Research**

The preliminary research was conducted to know the initial ability of the new students before the treatment. Teacher was difficult to have interaction with the students since they were quite passive in the class. Less communication happened between teacher and students so the only possible way to make the class kept running was using one way communication from the teacher. This condition continued to the interview session (oral test). Most of students were hesitant in answering the questions from the teacher, even for some simple questions. The score of oral test can be seen in the following table;

**Score of Students' Oral Test Preliminary Research**


ISBN: 978-602-74576-0-7

| No | Students | Score |
|---|---|---|
| 1. | AS | 60 |
| 2. | AP | 50 |
| 3. | AR | 52 |
| 4. | BL | 60 |
| 5. | CT | 54 |
| 6. | DP | 60 |
| 7. | FN | 50 |
| 8. | IF | 52 |
| 9. | KL | 50 |
| 10. | MU | 52 |
| 11. | NG | 54 |
| 12. | NH | 72 |
| 13. | NI | 60 |
| 14. | NS | 58 |
| 15. | NT | 60 |
| 16. | NTI | 54 |
| 17. | MF | 64 |
| 18. | MFR | 55 |
| 19. | MFZ | 60 |
| 20. | RA | 54 |
| 21. | RK | 62 |
| 22. | RS | 50 |
| 23. | RT | 72 |
| 24. | SA | 52 |
| 25. | SAH | 50 |
| 26. | SK | 50 |
| 27. | SKH | 70 |
| 28. | SM | 50 |
| 29. | TH | 58 |
| 30. | TN | 55 |

**Sum of the Score =1704/30=56.68**

$$\bar{x} = \frac{\sum Fx}{N}$$

$$\bar{x} = \frac{\sum 1704}{30}$$

$$\bar{x} = 56.68$$

Note :

$\bar{x}$ = The average score

$\sum$fx = Sum of the whole score

N = Member of students

Based on the result of the preliminary research, students still have low ability in speaking it is reflected from the oral test; they have less confidence to speak and were silent to most questions.

The progress of students' speaking skill dealing with their confidence and motivation could be seen from test and observation in every cycle or session. In preliminary research (pre-cycle), students' speaking skill is still low (poor) since there was less interaction in the classroom and the questions in oral test (interview) mostly not responded. This because of they have low confidence and motivation to speak. In cycle I, it shows improvement. After they are treated by using Three Communicative Activities in the classroom, some students who were silent before begin to respond the topic or ideas in the discussion. They were quite enthusiastic to share to their friends and tried to find simple solution or recommendation from the issue or topic discussed. After doing the test, the result is obtained for 64.17 (average score). This encouraged the researcher to do the next cycle of the research and do the evaluation from the first cycle since the result still needs to be improved. Even students' ability has been improved, there were some points in cycle I (term I) should be evaluated and modified to get better result. Those are the number of students in each group is too many, the composition of the members (students with good and poor proficiency in speaking) in a group, and time allotment for doing review of the activity and the topic.

Cycle II was conducted by giving some modifications. They are the number of students in each group becomes three (3) from five (5) in the first cycle, teacher tries to make better composition in one group by placing one student in good skill and


ISBN: 978-602-74576-0-7

two others who have less proficiency in speaking. The other point is giving more time allotment for reviewing the activity and the topic or issue. The treatments show significant progress from the students. Each student has more chance to talk in a group and they are eager to talk since the discussion starts. More opinions are delivered in discussion to find any solution or recommendation in this cycle. After they get the solution or recommendation, students are asked to simulate in such context they create by themselves. In review session, it is different from the previous cycle. Students are allowed to give their final remarks related to the topic they discussed in their group. The result in cycle II is 76. 37 (average score). Here is the list of score in cycle II:

| No | Students | Score | No | Students | Score |
|---|---|---|---|---|---|
| **1.** | **AS** | **75** | **18.** | **MFR** | **75** |
| **2.** | **AP** | **72** | **19.** | **MFZ** | **74** |
| **3.** | **AR** | **72** | **20.** | **RA** | **74** |
| **4.** | **BL** | **70** | **21.** | **RK** | **72** |
| **5.** | **CT** | **74** | **22.** | **RS** | **78** |
| **6.** | **DP** | **80** | **23.** | **RT** | **74** |
| **7.** | **FN** | **70** | **24.** | **SA** | **75** |
| **8.** | **IF** | **72** | **25.** | **SAH** | **88** |
| **9.** | **KL** | **78** | **26.** | **SK** | **85** |
| **10.** | **MU** | **72** | **27.** | **SKH** | **80** |
| **11.** | **NG** | **74** | **28.** | **SM** | **76** |
| **12.** | **NH** | **82** | **29.** | **TH** | **88** |
| **13.** | **NI** | **70** | **30.** | **TN** | **75** |
| **14.** | **NS** | **78** | | | |
| **15.** | **NT** | **80** | | | |
| **16.** | **NTI** | **76** | | | |
| **17.** | **MF** | **84** | | | |

**Sum of the Score =2280/30=76.37**

$$\bar{x} = \frac{\sum x}{N}$$

$$\bar{x} = \frac{\sum 2280}{30}$$

=76.37

Note :

$\bar{x}$ = Average score

$\sum$fx = Sum of the whole score

N = Number of student

**Conclusion**

Three Communicative Activities (discussion, problem solving, and role-playing) can be an effective technique in promoting new students' confidence and motivation to speak, so their ability is improved. Ways the technique works in breaking the students into small groups, optimal number is three for each provides students opportunity to share their idea in a group and are active in finding solution or recommendation for the issue discussed which then set up in a small simulation (role-play).

All the rest, teachers should construct a variation of English speaking activities which motivate the students to learn and promote their confidence. This leads to better success and achievement in learning English, especially speaking. Teachers' roles should be changed as a


ISBN: 978-602-74576-0-7

provider, an assistant, and a consultant to increase effectiveness in the learning environment.

**References**


Brown, D.H. 2003. *Language Assessment, Principle and Classroom Practices*. California: Longman Inc.

Bygate, M. 1987. *Speaking*. Oxford: Oxford University Press.

Hayriye K. 2006. *Teaching Speaking: Activities to Promote Speaking in a Second Language.* The Internet TESL Journal, Vol. XII, No. 11, November.

Harumi, I. (2002). *A New Framework of Culture Teaching for Teaching English as a Global Language*. RELC Journal. 33(2), 36-57.

J. Harmer. 2007. *The Practice of English Language Teaching*. New York: Longman.

K, Shumin. 2002. *Factors to Consider: Developing Adult EFL Students' Speaking Abilities, in Methodology in Language Teaching*. Cambridge: Cambridge University Press.

Lawrence, B. (2000). *The effect of culture on the teaching of English*. The English Teacher. 4(1), 18-30.

Luoma, S. 2004. *Assessing speaking*. Cambridge: Cambridge University Press.

Nunan, D. 1989. *Understanding language classrooms: A guide for teacherinitiated action*. New York: Prentice Hall.

Pattison, P. (1987). *Developing communication skills*. Cambridge: Cambridge University Press.

Richards, J. C. (2004). *Communicative Language Teaching Today*. Guidelines. 26(2), 3-10.

T. Hedge. 2008.*Teaching and Learning in the Language Classroom*. Oxford: Oxford University Press.

Wallace, M.J. 1998. *Action Research for Language Teachers*. Cambridge: Cambridge University Press.


.


ISBN: 978-602-74576-0-7

# LEARNING APPLICATION OF REALISTIC MATHEMATICS EDUCATION BASED ON ICEBERG PHENOMENON

DYAH PURBONINGSIH, S.PD
*Postgraduate of Mathematics Education, Yogyakarta State University, Jl Colombo No 1 Yogyakarta, Indonesia*

VENTI INDIANI, S.PD
*Postgraduate of Mathematics Education, Yogyakarta State University, Jl Colombo No 1 Yogyakarta, Indonesia*

Abstract

Realistic mathematics education (RME) is an approach that can be applied in school mathematics. Learning activities of RME based on the stage of development of students that can be analogous to an iceberg phenomenon. Mathematics learning activities based on the iceberg phenomenon visualized by four mathematical models namely mathematical concrete, concrete models, formal models and formal mathematics. Therefore, the students 'mathematics learning should be adapted to the students' level of cognitive development that has been divided into four iceberg phenomenon.

Keywords: School Mathematics, Realistic Mathematics Education, Iceberg Phenomenon

## 1. Introduction

Based on the Regulation of the Minister of National Education problem solving is the focus of mathematics learning in Indonesia. According to the NCTM (1989: 209) indicators of problem solving consists of the ability to understand the problem, devised a mathematical model, implement the strategy and interpret the solution. Suitable with the goal of learning mathematics above, The National Council of Teachers of Mathematics (NCTM) states that one of seven capabilities that must be owned by the students in the learning of mathematics is the problem solving ability (knowledge of mathematical problem solving). Thus it can be said that the problem-solving ability is one of important aspect that must be mastered by the students in learning mathematics. Solving the problem requires students to think creatively in modeling problems presented in the form of mathematics that eventually students can find the solutions of the problems. That can be said that the skill of students in making mathematical modeling to the mathematics formal form is necessary. Learning mathematics is actually providing the opportunity for students to identify the problems of mathematics contextually and realistic. Iceberg approach, that is part of the Realistic Mathematics Education (RME) is an approach that can be applied in the process of learning mathematics. Through this approach students can learn mathematics step by step so that students have the optimal problem-solving ability. RME emphasis on the construction of concrete objects as a starting point to obtain a formal mathematical concept. Concrete objects that exist in the environment can be used as a context for learning mathematics in building linkages mathematics as early in the process of mathematical modeling by students. Gravemeijer (1994) stated that the model can be defined as a bridge of concrete problems to the formal mathematics.

## 2. Discussion

"Mathematics as a human activity" (Freudenthal, 1971). This means that mathematics can be defined as a human activity. Activities in mathematics can be form as activity to solve the problem, find a mathematics problem, and other activities that related to mathematics problems in daily life. Activities of mathematics can be learned as "learning by doing". Mathematics learning will be more meaningful for students if the learning process involves realistic problems or implemented with a contextual situation. National Council of Teachers of Mathematics (NCTM, 2000) states that it is important to give students a chance to learn mathematics in a context.

Mathematics learning delivered to students should be able to cover all of the capabilities of students, therefore the study of mathematics is presented with a meaningful concept. One way that can be used in a meaningful mathematics learning is to put mathematics as a living experience of students. Aryadi Wijaya (2012) stated that the use of context in learning mathematics can make a mathematical


ISBN: 978-602-74576-0-7

concept becomes more meaningful for students as the context may contain an abstract mathematical concepts that can be understood easily by students. Aryadi Wijaya (2012) says that a realistic problem should not always be problems that exist in the real world (real-world problem) and can be found in the daily life of students. A problem called "realistic" if the problem can be imagined (imaginable) or real in the minds of students. Realistic problems are used as the foundation for building a mathematical concept or also known as a source for learning.

One of the characteristics of realistic mathematics education in the use of context. Van Den Heuvel-Panhuizen (2011) mentions that in the context of RME can be seen in the narrow sense and broad sense. In a narrow sense, context refers to a specific situation in question. Meanwhile, in a broad sense context refers to the phenomenon of daily life, imaginary, or direct mathematical problems.

Based on the advantages of context, De Lange divides context into three levels, first context order which only includes translation of mathematical problems textually and explicit, then the second context order that give probability to build the mathematical concept of a phenomenon and use mathematics as a tool to organize reality. Lastly, third order context that allows students build a concept or a new mathematical idea. Aryadi Wijaya (2012) states that the necessary thing when choose the context in realistic mathematics education is a function of the context not as illustrations or as a form of application after students learn certain mathematical concepts.

The most important point of context is that the context should bring out a mathematical process and support the development of student's conceptual and the ability to transfer knowledge to new relevant situations (Finkelstein, 2011). Aryadi Wijaya (2012) delivered a few things that can be used to develop context in mathematics, that are context should attract the attention of students and capable to motivate students to learn mathematics. The use of context in mathematics education realistic is not as an application of a concept but as a starting point to construct a concept. Context does not involve emotions, context shoul be adapted to the student's prior knowledge.

As we know above that one of the functions of the context is to develop a model. Mathematical models can help students understand the concepts easily. In addition, the mathematical model is also an important aspect of problem solving. Gravemeijer (1994) mentions four levels in the model development. They are situational level, referential level, generan level, and formal level. Situational level is the most basic level of modeling where knowledge and models are still evolving in the context of a used problem situation. Level referential develop models and strategies that refer to the context so that the modeling results in this level is called a model of situation. General level to develop a model that leads to search the mathematics solutions that can be called models for problem solving. Formal level is the formulation and affirmation of the concept that constructed by the students.

Four levels in the development model by Gravemeijer can be analogized as iceberg phenomenon. In iceberg approach, situational level in realistic mathematics education mathematics can be called concrete. While the level of referential called concrete model, general level called formal models and formal level called formal mathematics.

**Concrete Mathematics**

In this step teachers should have many idea to develop and manipulate the concrete material as a mathematical world orientation. The capability of students to interpret the concrete context depends on the informal knowledge and student's intuition. Concrete material will make students easier to understand the concept. In other hand, it can be use as motivation for students to learn mathematics because as Johnson (2014) said that students should know why the learn some material so that they will be more interest in learning something.

**Concrete Model**

This step is a bridge from concrete context to next model understanding. Concrete model can be defined as "model of" where the use of model and strategy refers to concrete situation given in the learning process (Marsigit et all, 2014). Students are encouraged to move from concrete mathematics to concrete model. After students understand the problem in concrete situation, they can use any picture, symbols or graph to make concrete model. According to Marsigit (2010) most of the teachers understood that there were problems of intertwining between informal activities and formal mathematics.

**Formal Model**


ISBN: 978-602-74576-0-7

Formal model can be defined as "model for" where the use of model and strategy is not only refers to the concrete situation given in the learning process but also that model should be used generaly in different situation (Marsigit et all, 2014). In this step students are encouragedto develop model that can be represent their thougt in solving another different problems with the context given before. Formal model can be said as a bridge from model and strategy that can be used to solve problem or situation that have been given before to model and strategy that can be used to solve problem generaly in any different problem.

**Formal Mathematics**

The peak of iceberg approach is formal mathematics. In this step students can write the situation or problem using formal notation. As a teacher we should facilitate students to construct their mathematics concept in formal mathematics. Formal mathematics can be developed step by step that have been explained above. When students learn certain concept step by step as iceberg approach, that concept is not easily to forget by students.

Here are the example how to learn division concept based on iceberg approach.

1. Division concept of real number by fraction number

   Problem 1:

   *Aunty wants to make some ice cream with some chocolate bars. Every ice cream need 3/5 chocolate bars. Meanwhile, Aunty just having 4 chocolate bars. How many ice cream can be made by Aunty?*

   a. Concrete Mathematics

      Concrete mathematics contains about the narrative or story problems which is designed based on everyday life. From this, we know that the problems above is a concept of concrete mathematics.

      *"Aunty wants to make some ice cream with some chocolate bars. Every ice cream need 3/5 chocolate bars. Meanwhile, Aunty just having 4 chocolate bars. How many ice cream can be made by Aunty?"*

Figure 1 Source: Wikimedia.org

b. Concrete Model

In this step students model the real problem. Students make a model refers to concrete situation given in the learning process.

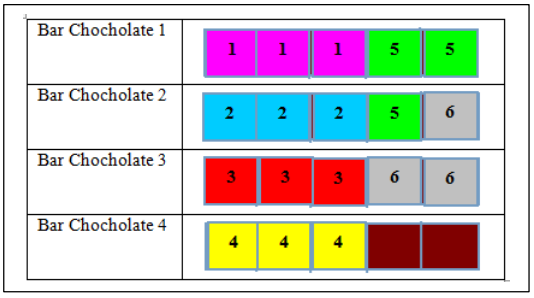



Figure 3 Concrete Model Problem 1

c. Formal Model

Students make model not only refers to the concrete situation given in the learning process but also that model should be used generaly in different situation.

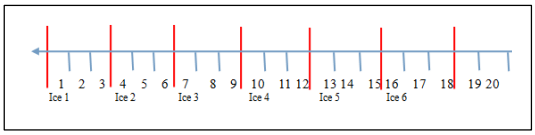



Figure 4 Formal Model Problem 1

d. Formal Mathematics

After that students write the situation or problem using formal notation.

$$4 : \frac{3}{5} = 4 \times \frac{5}{3}$$
$$= \frac{20}{3}$$
$$= 6\frac{2}{5}$$

2. Division of Fraction Numbers by Real Numbers

   Problem 2:


ISBN: 978-602-74576-0-7

*Sister has a ribbon with length 1/2 meter. She want to share the ribbon to her 2 friends to tie the gift box. How length of the ribbon that obtained by her friends?*

a. Concrete Mathematics
Concrete mathematics contains about the narrative or story problems which is designed based on everyday life. From this, we know that the problems above is a concept of concrete mathematics.
*"Sister has a ribbon with length 1/2 meter. She want to share the ribbon to her 2 friends to tie the gift box. How length of the ribbon that obtained by her friends?"*

Figure 5 Source: alicdn.com

b. Concrete Model
In this step students model the real problem. Students make a model refers to concrete situation given in the learning process.

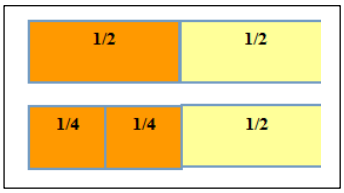



Figure 6 Concrete Model Problem 2

c. Formal Model

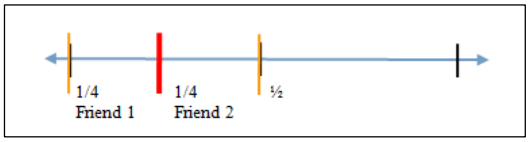



Figure 7 Formal Model Problem 2

d. Formal Mathematics

$$\frac{1}{2} : 2 = \frac{1}{4}$$

## 3. Conclusion

Problem-solving ability is one of important aspect that must be mastered by the students in learning mathematics. Solving the problem requires students to think creatively in modeling problems presented in the form of mathematics that eventually students can find the solutions of the problems. Iceberg approach that consist of four step, concrete mathematics; concrete model; formal model; and formal mathematics could help students to model the problems given so that they can solve the problem easily. Through iceberg approach students learn step by step in modeling the problem given.

**References**

1. De Lange, J. *Mathematics, Insight and Meaning*. Utrecth: OW & OC, Rijksuniversiteit Utrecth. (1987).
2. Finkelstein, N. D. *Context in the Context of Physics and Learning*. Retrieved 16 February 2016 from http://lchc.ucsd.edu/nfinkels/perc.context.pdf. (2001).
3. Freudenthal, H. *Revisiting Mathematics Education*. Retrieved 17 February 2016 from https://p4mriunismuh.files.wordpress.com/2010/08/revisiting-mathematics-education.pdf. (1991).
4. Gravemeijer, K.P.E. *Developing Realistic Mathematics Education*. Utrecht: Freudenthal Institute. (1994).
5. Johnson, E. *Contextual Teaching and Learning: What it is and why it's here to stay. Penerjemah: Ibnu Setiawan*. Bandung: Kaifa. (2014).
6. Marsigit, Ilham Rizkianto, Nila Mareta Murdiyani. *Filsafat Matematika*. Yogyakarta: UNY Press. (2014).
7. Marsigit. The Iceberg Approach of Learning Fractions in Junior High School: Teachers' Simulations of Prior to Lesson Study Activities. *Presented in APEC Conference Chiang Mai Thailand, November 2010*. (2010).
8. NCTM. *Programs for Initial Preparation of Mathematics Teachers*. Reston, VA: NCTM. (2003).
9. NCTM. *Curriculum and Evaluation Standards for School Mathematics*. Reston, VA: NCTM. (1989).
10. Permendiknas Nomor 22 Tahun 2006 Tentang Standar Isi.
11. Treffers, A. *Three Dimensions. A Model of Goal and Theory Description in Mathematics Insctruction- The Wiskobas Project*. Retrieved


ISBN: 978-602-74576-0-7

18 February 2016 from http://download.springer.com/static/pdf/460/bfm%253A978-94-009-3707-9%252F1.pdf?originUrl=http%3A%2F%2Flink.springer.com%2Fbook%2Fbfm%3A978-94-009-3707-9%2F1&token2=exp=1456381756~acl=%2Fstatic%2Fpdf%2F460%2Fbfm%25253A978-94-009-3707-9%25252F1.pdf%3ForiginUrl%3Dhttp%253A%252F%252Flink.springer.com%252Fbook%252Fbfm%253A978-94-009-3707-9%252F1*~hmac=568c4e4b94815ebc56bdf68647d44858fd7f4d48ac615bd0f84259aab864fbb7. (1987).

12. Van den Heuvel-Panhuizen, M. *Realistic Mathematics Education*. Retrieved 17 February 2016, from http://www.staff.science.uu.nl/~heuve108/download-rme/VdHeuvel-Drijvers_2014_ENCYCLOPEDIA_RME-ref.pdf. (1999).
13. Wijaya, Ariyadi. *Pendidikan Matematika Realisik: Suatu Alternatif Pendekatan Pembelajaran Matematika*. Yogyakarta: Graha Ilmu. (2012).


ISBN: 978-602-74576-0-7

# AN ASSESSMENT OF HISTORICAL THINKING SKILLS USING THE RASCH MODEL

OFIANTO
*Padang State University*
*Padangy, Indonesia*

Abstract

This study was conducted in order to produce a model and instruments of historical thinking skills in the history subject at the senior high school (SHS) and to identify SHS students' historical thinking skills. The study was conducted in two stages, namely model development and instrument development altogether with a small-scale tryout and a large-scale tryout. The test for each tryout consisted of six and five sub-test sets. Each test set contained 20 anchor items. The sample for each tryout comprised 1573 and 2613 testees. The data was analyzed by means of Partial Credit Model (PCM) using the QUEST program. The overall tryout results indicated that, based on the criteria for an INFIT MNSQ mean of 1.0 and a standard deviation of 0.0, the tests fitted PCM. The reliability coefficients of the tests for the tryouts were moderately good; the Cronbach's alpha coefficients were, respectively, 0.65 and 0.54. The lowest score of historical thinking skills was -.352 and the highest was +1.21 in an ideal range of -4.0 to +4.0. In overall, the testees' scores were not satisfactory. Only 5.89% of the testees were above the expected median.
**Keywords***: instrument development, test, historical thinking skills, polytomous, PCM.*

## 1. Introduction

Assessment is an important component in the operation of an education. An assessment is conducted in order to view and to monitor the development of educational quality from one period to another (Alen & Yen, 1997, p.2; Griffin & Nix, 1991, p.4). Therefore, in order to perform an assessment toward the educational quality, teachers might use multiple assessment tools. The assessment tools might be in the form of test and non-test (Mardapi, 2008, pp.2-3). The use of multiple assessment tools is intended to portray the learning results comprehensively. Thereby, the assessment will be useful for viewing the educational quality in overall and the assessment will also provide important information for improving the learning process.

An assessment technique in the form of a test is a measurement activity because through a test a teacher might attain numerical data for improving the learning participants' characteristics capability (Hargreaves & Schmidt, 2002, pp.69-95). One of the learning subjects taught from the elementary schools to the senior high schools is history. The history learning in the schools aims to attain the historical thinking skills (Fogu, 2009, pp.103-121), to encourage the learning participants to be critical-analytical (Winerburg, 2006, pp.3-6) and to benefit the knowledge about the past in order to comprehend the life in the present time and in the future time.

According to the Ministry of National Education Regulation Number 20 Year 2007 (Diknas, 2007, pp.1-2) regarding the assessment standards for the elementary and the high education, the assessment of history learning results contains three aspects namely: academic, historical awareness and nationalism. In performing the assessment in the schools, the teachers should pay attention to the compatibility between and among the standards (the competencies), the contents (the curriculum contents), the assessment and the learning strategies (Ashby & Shemit, 2005, pp.150-163).

Based on the explanation, in order to measure the historical thinking skills the researchers would like to provide an essay test. Therefore, the researchers should arrange an instrument of historical thinking skills that consists of a test and an assessment guideline. As a result, the researchers are encouraged to perform a study on the instrument development for measuring the learning participants' historical thinking skills that consists of a test and an assessment guideline.

## 2. Method

The study was a developmental one and the aim of the study was to develop a test of senior high school students' historical thinking skills. The development procedures and phases that the researchers implemented in the study referred to the ones of research and development proposed by Borg & Gall (1989, p.227). However, the stages were made appropriate to the objectives and the importance of the study. Then, the stages of the research and development study were as follows: (1) needs analysis and preliminary investigation; (2) model planning and design; (3) model experiment; (4) evaluation; (5) implementation; and (6) dissemination.

The needs or problem analysis and the preliminary investigation were conducted in the form of direct observation/survey and literature or library study. The results of these activities were made as the basis of designing the initial draft of the test/assessment model.

In the model design, the researchers developed an instrument/a test of senior high school students' historical thinking skills. According to Oriondo & Dallo-Antonio (1984, p.34), the stages of test development included: (1) test design; and (2) test experiment. The activities of test design were conducted until the drafting of the test that would be ready for the experiment.

The final product of the model that would be developed would be disseminated to the users and the policy makers in the schools, namely: the teachers, the principals, the heads of education office in the city/district and the province. The dissemination would be conducted in the form of research summary distribution to the sample schools.

The product experiment would be performed twice namely: (1) in the form of limited experiment; and (2) in the form of expanded experiment. The activities that the researchers performed in the limited experiment were as follows: test implementation and results analysis. Then, the activities that the researchers performed in the expanded experiment were as follows: test implementation, results analysis and results interpretation.

The data resulted from the expanded experiment was analyzed by using the Quest program. The analysis was performed in order to attain information regarding the characteristics of the item parameter, the participants' capability parameter and the students' mastery toward the historical thinking skills in the school.

## 3. Results and Discussions

The assessment model of historical thinking skills resulted in the study belonged to the procedural model, namely the model that had procedures that should be performed sequentially. The phases included the test preparation, the limited experiment and the expanded experiment.

Table 1. The Characteristics of the Senior High Schools for the Limited Experiment of Historical Thinking Skills Test

| N0 | Name of Senior High School | Location | Popularity Based on the Graduates Accepted in the State University |
|---|---|---|---|
| 1 | 1 Solok Senior High School | Solok City | Popular in Solok City |
| 2 | 1 Payakumbuh Senior High School | Payakumbuh City | Popular in Payakumbuh City |
| 3 | 1 Gunung Talang Senior High School | Solok County | Popular in Solok County |
| 4 | 1 Batu Sangkar Senior High School | Tanah Datar County | Popular in Tanah Datar County |
| 5 | 2 Solok Senior High School | Solok City | Unpopular in Solok City |

Results of Limited Experiment

The scoring was performed by using the three categories and the 0-2 polytomous scale. The data was analyzed by means of QUEST program. The result was that there had been two test items that had not been fit with the model, namely test item number 23 and test item number 24. In both items, not all of the testees were able to attain the category-2 and there were very small number of testees who attained the category-3.

According to CTT, the reliability in the form of Cronbach Alpha, namely 0.65, was still the same after both items were eliminated from the analysis. Meanwhile, according to IRT, the estimated reliability basedon the testees' (case/person) analysis in the form of person separation index was 0.82.

Table 3 showed the average score for the increasing item difficulty level, starting from the easiest to the hardest one. The gradation for the aspect of fundamental capability was the chronological thinking skills, continuous and changing identifying skills and causal analyzing skills.

Table 2. Results of Item Estimation (I) and Testee Estimation (N) from the Limited Experiment

| No. | Explanations | Before the Two Items were Eliminated (I=111) | | After the Two Items were Eliminated (I=109) | |
|---|---|---|---|---|---|
| | | Estimation for Item | Estimation for Testees | Estimation for Item | Estimation for Testees |
| 1 | Average and standard deviation scores | 0,00 ± 1,08 | -0,61 ± 0,86 | 0,00 ± 1,06 | -0,58 ± 0,85 |


ISBN: 978-602-74576-0-7

| | | | | | |
|---|---|---|---|---|---|
| 2 | Average and standard deviation scores that had been made appropriate | 0,00 ± 1,02 | -0,61 ± 0,78 | 0,00 ± 1,00 | -0,58 ± 0,77 |
| 3 | Separation index | 0,89 | 0,82 | 0,89 | 0,82 |
| 4 | Cronbach Alpha scores | | 0,54 | | 0,54 |
| 5 | Average and standard deviation scores of INFIT MNSQ | 0,98 ± 0,10 | 0,99 ± 0,47 | 0,98 ± 0,10 | 0,99 ± 0,48 |
| 6 | Average and standard deviation scores of OUTIFTMNSQ | 0,99 ± 0,15 | 1,00 ± 0,51 | 0,98 ± 0,13 | 1,00 ± 0,51 |
| 7 | Average and standard deviation scores of INFIT t | -0,22 ± 1,06 | -0,24 ± 1,09 | -0,19 ±1,06 | -0,24 ± 1,09 |
| 8 | Average and standard deviation scores of OUTFIT t | -0,17 ± 1,07 | -0,15 ± 1,05 | -0,14±1,06 | -0,14 ± 1,05 |
| 9 | Item or testees of 0 score | 0 | 0 | 0 | 0 |
| 10 | Item or testees of perfect score | 0 | 0 | 0 | 0 |

The aspects of historical thinking skills, respectively, historical significant meaning establishing skills, historical source/information and data recording skills, historical research planning skills, historical results of research reporting skills and historical sources analyzing and benefitting skills.

Table 3. The Scores of Difficulty Level in the Aspects and the Sub-Aspects of Historical Thinking Skills According to PCM Based on the Results of Limited Experiment

| No. | Aspects and Sub-Aspects of Historical Thinking Skills | Level of Item Difficulty Score | | |
|---|---|---|---|---|
| | | Difficulty | Delta | |
| 1. | **Basic Skills** | **-0.989** | **-2.677** | **0.697** |
| a. | Chronological thinking skills | -1.776 | -3.336 | -0.221 |
| b. | Continuity and change identifying skills | -1.027 | -2.673 | 0.618 |
| c. | Causal relationship analyzing skills | -0.348 | -2.190 | 1.492 |
| 2. | **Historical research capabilities** | **0.508** | **-0.685** | **1.703** |
| a. | Significant meaning establishing skills | -0.450 | -1.993 | 1.093 |
| b. | Historical data/information/source recording skills | 0.462 | -0.862 | 1.788 |
| c. | Historical sources benefitting and anakyzing skills | 0.917 | -0.405 | 2.238 |
| d. | Historical research planning skills | 0.689 | -0.305 | 1.690 |
| e. | Historical research results reporting skills | 0.726 | 0.112 | 1.340 |

Table 4. The Item Distribution in the Aspects of Historical Thinking Skills Based on the Scores of Difficulty Level in the Limited Experiment

| Range on the Level of Difficulty | Basic Skills | | Historical Research Capabilities | |
|---|---|---|---|---|
| | Absolute Frequency | Relative Frequency | Absolute Frequency | Relative Frequency |
| < -2,0 | 4 | 10.81% | 0 | 0.00 |
| -2,0 sampai <-1,5 | 5 | 13.51% | 0 | 0.00 |
| -1,5 sampai <-1,0 | 6 | 16.21 % | 4 | 5.40% |
| -1,0 sampai <-0,5 | 11 | 29.72% | 3 | 4.05 % |
| -0,5 sampai <0,0 | 5 | 13.51 % | 9 | 12.16 % |
| 0,0 sampai <0,5 | 3 | 8.10 % | 16 | 21.62 % |
| 0,5 sampai <1,0 | 2 | 5.40 % | 23 | 31.08 % |
| 1,0 sampai <1,5 | 1 | 2.70 % | 16 | 21.62% |
| 1,5 sampai <2,0 | 0 | 0.00% | 2 | 2.70% |
| ≥ 2,0 | 0 | 0.00% | 1 | 1.35 % |
| Jumlah | 37 | 100 % | 74 | 100 % |

Results of Expanded Experiment

The summary for the results of item estimation and testee (case/person) estimation showed the following data: the number of testee (N) was 2,673 people and the number of item (I) was 93 with level of probability that equaled to 0.50. The summary was compiled by using the QUEST program and the results of the summary were

presented in Table 5. Table 5 showed that in overall the items in the form of the test had been fit with the model because the items met the fit statistics requirements that had been a prerequisite for the QUEST program. The requirements urged that the items would be fit to the model if the items that were analyzed had the average scores of INFIT MNSQ and OUTFIT MNSQ equaled to or lower than 1.0 with the standard deviation that equaled to 0.0 or if the items that were analyzed had the average scores of INFIT t and OUTFIT t equaled to or lower than 0.0 with standard deviation that equaled to 1.0 (Adam & Khoo, 1996, p.30).

Table 5. Results of Item Estimation (I) for the Historical Thinking Skills and of Testee Estimation (N) According to the Partial Credit Model (PCM) in the Expanded Experiment.

| No | Explanations | Estimation for Item | Estimation for Testees (Case/Person) |
|---|---|---|---|
| 1 | Average and standard deviation scores | 0,00 ± 0,96 | -0,58 ± 0,71 |
| 2 | Average and standard deviation scores that had been made appropriate | 0,00 ± 0,93 | -0,58 ± 0,60 |
| 3 | Separation index | 0,93 | 0,72 |
| 4 | Cronbach Alpha scores | | 0,41 |
| 5 | Average and standard deviation scores of INFIT MNSQ | 0,99 ± 0,05 | 0,99 ± 0,51 |
| 6 | Average and standard deviation scores of OUTIFTMNSQ | 0,99 ± 0,10 | 0,99 ± 0,56 |
| 7 | Average and standard deviation scores of INFIT t | -0,16 ± 1,05 | -0,25 ± 1,08 |
| 8 | Average and standard deviation scores of OUTFIT t | -0,14 ± 1,04 | -0,16 ± 1,05 |
| 9 | Item or testees of 0 score | 0 | 0 |
| 10 | Item or testees of perfect score | 0 | 0 |

According to CTT, the reliability in the form of Cronbach Alpha index was 0.54. On the other hand, according to IRT (Wright & Masters, 1982, p.106; Keeves & Masters, 1999, p.276) the reliability that had been estimated based on the testee (case/person) analysis in the form of person separation index was 0.72.

Table 6. The Scores on the Level of Item Difficulty in the Aspects and the Sub-Aspects of Historical Thinking Skills within the Expanded Experiment

| No. | Aspects and Sub-Aspects of Historical Thinking Skills | Level of Item Difficulty Score | | |
|---|---|---|---|---|
| | | Difficulty | Delta | |
| | | | 1 | 2 |
| 1. | **Basic Skills** | **-0.705** | **-2.307** | **0.897** |
| a. | Chronological thinking skills | -1.072 | -2.641 | 0.488 |
| b. | Continuity and change identifying skills | -0.698 | -2.150 | 0.758 |
| c. | Causal relationship analyzing skills | -0.420 | -2.261 | 1.419 |
| 2. | **Historical research capabilities** | **0.369** | **-0.650** | **1.390** |
| a. | Significant meaning establishing skills | -0.13 | -1.363 | 1.102 |
| b. | Historical data/information/source recording skills | 0.24 | -1,00 | 1.481 |
| c. | Historical sources benefitting and anakyzing skills | 0.461 | -0.552 | 1.475 |
| d. | Historical research planning skills | 0.643 | 0.135 | 1.153 |
| e. | Historical research results reporting skills | 0.933 | 0.178 | 1.691 |

Results of Measurement for the Expanded Experiment

The results of measurement showed that the range of raw scores was 2 as the lowest score and 39 as the highest one and the limit of maximum score was 50 (category-1 = 0, category-2 = 1 and category-3 = 2).


ISBN: 978-602-74576-0-7

Table 7. The Absolute Frequency and the Converted Relative Scores of the Historical Thinking Skills in the Range between -2.00 and 2.00 with the Class Interval 0.5.

| No. | Class of Interval for Converted Scores | Absolute Frequency | Relative Frequency | Cummulative Frequency |
|---|---|---|---|---|
| 1 | Score 0 (uncallibrated) | 0 | 0,00 | 0,00 |
| 2 | <-2,00 | 46 | 1,72 | 1,72 |
| 3 | -2,00 s/d -1,50 | 244 | 9,12 | 10,84 |
| 4 | >-1,50 s/d -1,00 | 321 | 12,00 | 22,84 |
| 5 | >-1,00 s/d -0,50 | 738 | 27,60 | 50,44 |
| 6 | >-0,50 s/d 0,00 | 1166 | 43,62 | 94,06 |
| 7 | >0,00 s/d 0,50 | 122 | 4,56 | 98,62 |
| 8 | >0,50 s/d 1,00 | 28 | 1,04 | 99,66 |
| 9 | >1,00 | 8 | 0,29 | 100,00 |
| | **Total** | **2673** | **100,00** | |

Discussions

The results of analysis on the data of limited experiment, according to the Partial Credit Model, showed that there had been items that had delta-1 scores bigger than those of delta-2; however, in overall the items had been fit with the model. The finding was not in contrary to the supporting theories, as having been proposed by Wright & Masters (1982, pp.44-45) that according to PCM the analysis characteristics enabled the items that had the scores of delta-1 bigger than those of delta-2. The statement implied that the ability to improve from category-2 to category-3 might be lower than that of category-1 to category-2. The results of the analysis also showed that among 111 items that had been tested there were 2 items that had not been fit to the Partial Credit Model (PCM) namely item number 23 and item number 24.

All of the items implemented in the expanded experiment had been fit with the model. The average scores for the level of item difficulty in the limited experiment, for the aspects of basic skills and of advanced skills, respectively, were -0.989 and 0.508. In the expanded experiment, the rank of the average scores for the level of difficulty, respectively, were -0.705 and 0.369. The data showed a similar pattern of responses between the results of limited experiment and those of expanded experiment and, based on the level of difficulty, still there had been a similar pattern of responses between the results of both experiments.

## 4. Conclusions and Suggestions

Conclusions

Based on the results of the study and the discussions, the researchers would like to draw several conclusions as follows. First, the assessment model that had been developed belongs to the procedural one. Second, the information attained from the assessment model of historical thinking skills was the formulation of learning continuum for the historical thinking skills, the item characteristics in the form of item difficulty and the testees' capability (*theta-$\theta$*) and the test items that had empirical evidence that had been fit to the Partial Credit Model (PCM) based on the three category polytomous data. Third, the validity of test instrument for the historical thinking skills that had been designed had been met through the expert judgement and had been proven fit empirically to the Partial Credit Model (PCM) based on the three category polytomous data. Fourth, the reliability of test instrument for the historical thinking skills in the form of Cronbach Alpha index had been quite good, namely 0.64. Fifth, the overall results of assessment showed that the testees had not mastered the historical thinking skills that had been tested. The finding was apparent from the fact that only 5.89% of the testees who had been in the expected mid-scores based on the three-category polytomous data according to the Partial Credit Model (PCM). The reason was that the learning participants were lack of exercising the historical thinking skills in finding concepts and of working on the non-objective tests.

Suggestions

Based on the conclusions, the researchers would like to formulate several suggestions as follows. First, the study only involved the state senior high schools as the samples; therefore, the researchers would like to suggest that the future studies might involve bigger sample size so that the researchers might found wider mastery of historical thinking skills in the related educational degree. The future studies might also be developed in the elementary schools or *madrasah ibtidaiyah*, the

senior high schools or *madrasah tsanawiyah* and even in the universities.

**List of References**


Adam, R. & Khoo, S.T. (1996) *Quest: interactive item analysis program*. Melbourne: The Australian Council for Educational Research.

Allen, M.J. & Yen, W.M. (1979). *Introduction to measurement theory*. Belmont, CA: Wadsworth, Inc.

Ashby, R., Lee, P.J. & Shemit, D. (2005). Putting principles into practice: teaching and planning.Dalam M.S. Donovan and J.D. Bransford (Eds.). *How students learn: history, mathematics, and science in the classroom*. Washington, DC: The National Academies Press.

Bain, R. B. (2005). Applying the principles of how people learning teaching high school history. Dalam M.S. Donovan and J.D. Bransford (Eds.). *How students learn: History, mathematics, and science in the classroom*. Washington, DC: The National Academies Press.

Barton, K.C. & Levstik, L.S. (2003). Why don't more history teachers engage students in interpretation?**.** *Research and Practice Social Education*, *67* (6), 358-361.

Borg, W.R. & Gall, M.D. (1989). *Educational research: An introduction(5th ed.)*. New York: Longman.

Depdiknas. (2007). *Peraturan Menteri Pendidi-kan Nasional Republik Indonesia Nomor 20, Tahun 2007, tentang Standar Pe-nilaian Pendidikan untuk Satuan Pen-didikan Dasar dan Menegah.*

Fogu, C. (2009). Digitalizing historical consciousness. *Journal History and Theory*,*47* (1), 103-121.

Griffin, P. & Nix, P. (1991). *Educational assessment and reporting: A new ap-proach*. Sydney: Harcourt Brace Jovanovich, Publishers.

Hambleton, R.K. & Swaminathan, H. (1985). *Item respons theory*. Boston, MA: Kluwer Inc.

Hargreaves, A., Earl, L. & Schmidt, M. (2002). Perspectives on alternative assesment reform. *American Educational Research Journal*, *39* (1), 69-95.

Keeves, J.P.& Master, G.N. (1999). Introduction. Dalam G.N. Masters & J.P. Keeves (Eds.).*Advances in measure-ment in education research and assess-ment*. Amsterdam: Pergamon, An imprint of Elsevier Science.

Lee, P. (2005). Putting principles into practice: understanding history. Dalam M.S. Donovan & J.D. Bransford (Eds.).*How students learn: history, mathematics, and science in the classroom*. Washington, DC: The National Academies Press.

Mardapi, D. (1999). Estimasi kesalahan peng-ukuran dalam bidang pendidikan dan implikasinya pada ujian nasional.*Disampaikan pada Pidato Pengukuhan Guru Besar, tanggal 4 Mei 1999*. Yogya-karta: Universitas Negeri Yogyakarta.

Mardapi, D. (2008). *Teknik penyusunan ins-trumen tes dan nontes.* Yogyakarta: Mitra Cendikia Press.

Masters, G.N. (1999). Partial credit model. Dalam J.P. Keeves & G.N. Masters (Eds.). *Advances in measurement in edu-cational research and assessment*. Amsterdam: Pergamon.

Oriondo, L.L. & Dallo-Antonio (1998). *Eva-luatingeducational outcomes (test, measurement, and evaluation)(5thed.).* Quezon City: REX Printing Company, Inc.

Rasch, G. (1961). On general laws and the meaning of measurement in psychology.*The Danish Yearbook of Philosophy*, *4* (1), 321-334.

Rasch, G. (1977). On Specific Objectivity: An attempt at formalizing the request for generality and validity of scientific statements. *The Danish Yearbook of Philosophy*, *14* (3), 58-93.

Seixas, P. & Peck, C. (2004). Teaching historical thinking. Dalam A. Sears & I. Wright (Eds.), *Challenges and prospects for canadian social studies*. Vancouver: Pacific Educational Press.

Seixas, P. (2013). *Lingking historical thinking concepts, content and competencies*. Vancouver: Pacific Educational Press.

Van der Linden, W.J. & Hambelton, R.K. (1997). *Handbook of modern item response theory*. New York: Springer.

Winerburg, S. (2006). *Berpikir historis: Memetakan masa depan, mengajarkan masa lalu.* (Terjemahan Masri Maris). Jakarta: Yayasan Obor Indonesia.

Wright, B.D. & Masters, G.N. (1982). *Rating Scale Analysis*. Chicago: Mesa Press.



ISBN: 978-602-74576-0-7

# THE EFFECT OF USING SEMANTIC MAPPING TO TEACH SPEAKING SKILL OF THE SECOND GRADERS OF JUNIOR HIGH SCHOOL

VIVI NURVITASARI
Educational Research and Evaluation, Yogyakarta State University, Kampus Karangmalang, Yogyakarta

**Abstract**

This study is focused on the strategy used in teaching English speaking skill to adolescent learners at SMP Muhammadiyah 2 Kalasan. It employed an experimental research study. The data are obtained from the outcome of preliminary study and the test given after the treatment. The subjects were the second graders at SMP Muhammadiyah 2 Kalasan on the academic year of 2013/2014. The findings of the study present that there is a significant difference in speaking skill of students taught using semantic mapping and those taught without semantic mapping.
***Key words:*** speaking *skill, semantic mapping, teaching speaking*

## 1. Introduction

In English teaching, there are four skills which have to be taught by the English teacher, those are reading skill, listening skill, writing skill, and speaking skill, but one of those skills has the most important function for human interaction, that skill is speaking skill. Therefore, many English teachers try to focus in making the students speak English fluently. Speaking skill is one of the essential skills which should be mastered by the students because this skill is a skill which is effective and efficient to be used to communicate in exchanging information or knowledge. Fulcher (2003: 23) argued that speaking is the verbal use of language to communicate with others. The purpose for which we wish to communicate with others are so large that they are innumerable. Speaking skill also can be used as a tool to create the interaction in the relationship with other people in our real daily life. Richards and Renandya (2002: 208) said that the functions of spoken language are interactional and transactional. The primary intention of the former is to maintain social relationship, whereas that of the latter is to convey information and ideas. So, we have to learn speaking skill because we can exchange the information by using the speaking skill.

Learning English speaking skill by using strategy is very useful for the students because the strategy could help the students to express their feeling, ideas, and opinion orally easily. The strategy is the ways which are used by the students to improve their knowledge. Using strategy especially semantic mapping strategy can help the teachers to introduce how to speak English conceptually and easily to the students.

Therefore, the researcher wants to conduct a research to know the effectiveness of semantic mapping in speaking skill of the students of the second grade of SMP Muhammadiyah 2 Kalasan. Based on the research problem, the purpose of this study is to find out whether or not there is a significant difference between students' speaking skill taught using semantic mapping and those taught without semantic mapping of the second graders of SMP Muhammadiyah 2 Kalasan.

## 2. Literature review

This part presents some supporting theories as a basic understanding of doing this research. The discussion will be presented below.

### *2.1. Speaking Skill*

#### *2.1.1. Definition of Speaking*

Fulcher (2003: 23) explained that speaking is the verbal use of language to communicate with others. The purpose for which we wish to communicate with others are so large that they are innumerable. Based on the explanation above, speaking skill is one of the English skills which has to be master because it has the important purpose that is to communicate to other in the people's daily life. Thornbury (2005: 1) said that speaking is so much a part of daily life that we take it for granted. The average person produces tens of thousands of words a day, although some people-like auctioneers or politicians-may produce even more than that. So natural and integral is speaking that we forget how we once struggled to achieve this ability-until, that is, we have to learn how to do it all over again in a foreign language.

#### *2.1.2. Effective Teaching of Speaking*

English speaking skill is one skill which has to be learnt and taught. It will become the priority for every people because speaking skill is a skill which gives the important roles in communication and interaction process in the people's daily life. Speaking skill can be the first focus in teaching

English that can be used to the students in expressing the feeling, ideas, and opinion.

Richard and Rodgers (2001: 1) claimed that teaching is a method that continues to be widely used today in textbooks and teaching materials, though in somewhat modified form. Teaching speaking skill should consider the situation, condition, and background of the students. It also should be appropriate with the process of students learning in order that the students do not be difficult to learn English speaking skill. Renandya (2002: 204) stated that EFL learners need explicit instruction in speaking, which, like any language skill, generally has to be learned and practied. However, in practice, it is too often assumed that spoken-language skills can be developed simply by assigning students general topics to discuss or by getting them to talk on certain subjects.

### *2.1.3. Assessing Speaking Skill*

In assessing the speaking skill of the students, there are some aspects which should be paid attention. Harmer (1991: 330) in Kusumawardhani (2012: 11) stated that there are five factors that must be considered by the English teacher in evaluating speaking ability, those factors will be presented below.

1.) Pronunciation

It is a way in which language is spoken.

2.) Vocabulary

Vocabulary is very essential because the speaker cannot speak more if he or she has a limited vocabulary.

3.) Grammar

Grammar is the rule in spoken language and written language. To get a good result in speaking ability, we should obey toward the rules of grammar.

4.) Fluency

We already know that one of the good criteria in English speaking is being able to speak English well and fluently. However, speaking fast does not always mean speaking correctly. English speak fluency of course makes the people communicate well and easily in any situations.

5.) Comprehension

It is power of understanding . In speaking, the speaker and the listener must have a good understanding, so there is a good respond between the speaker and the listener.

## *2.2. Semantic Mapping*

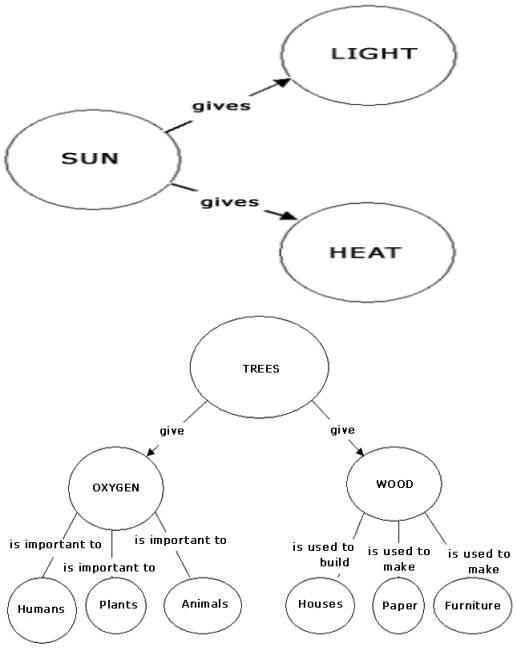
### *2.2.1 Definition of Semantic Mapping*

Semantic mapping is derived from two words, those are "semantic" and "mapping". Hornby (2000: 1068) said that semantic is connected with the meaning of words and sentences. Hornby (2000: 715) stated that mapping is to link a group of qualities, items, etc. with their source, cause, position on a scale. Semantic mapping is a drawing of a word concept which has some connections with other words.

Oxford (1990: 41-62) said that this strategy involves meaningful imagery, grouping, and associations; it visually shows how certain groups of words relate to each other. This strategy involves arranging concepts and relationships on paper to create a semantic map, a diagram in which the key concepts (stated in words) are highlighted and are linked with related concepts via arrows or lines. Such a diagram visually shows how ideas fit together. This strategy incorporates a variety of other memory strategies: grouping, using imagery, and associating/elaborating. This strategy is valuable for improving both memory and comprehension of new expressions.

a. The Examples of Semantic Mapping

Semantic mapping has some types but at every type of semantic mapping does not have the significance difference. Some examples of semantic mapping will be presented below.




b. The Procedure of Using Semantic Mapping

The use of semantic mapping in the classroom as strategy of teaching and learning process is aimed to help the students in improving their English speaking skill easily and effectively. This strategy is expected to be

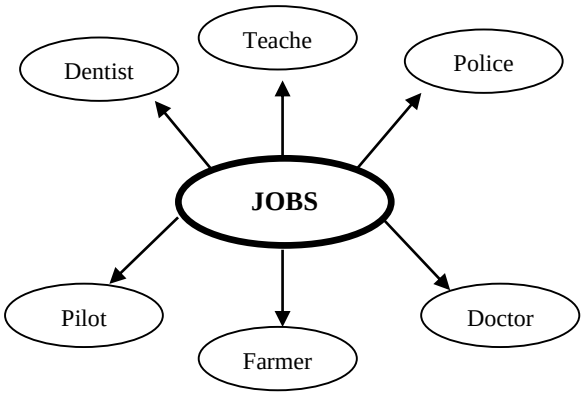

ISBN: 978-602-74576-0-7

able to give the ease of expressing the idea, opinion, and feeling about something by the students.

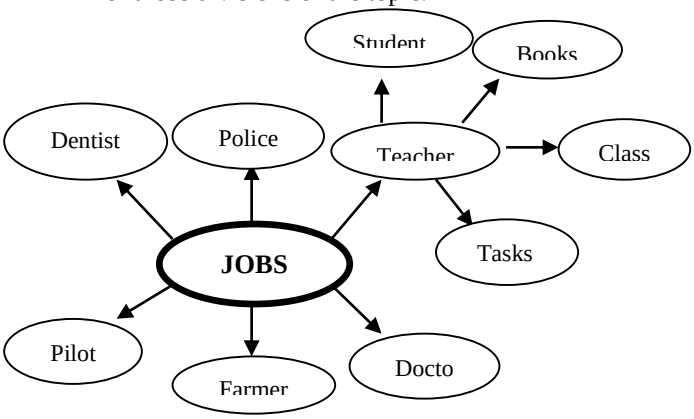
The use of this strategy in the classroom can be described in the following steps:

1.) Firstly, write a word or phrase of an interesting topic in the middle of a paper and then make the circle that will be explored that word or phrase of the topic. In this section, teacher also can give a picture as the centre of the topic.


2.) Draw the lines from the topic to connect some divisions of the topic.




3.) Then, draw the lines again from the each division of the topic to write some sub-division of those divisions of the topic.




4.) Finally, ask the students to express their ideas or oponion about the topic which has been written on the paper by the teacher and ask them to use the divisions and sub-divisions of the topic as the keywords to make the sentences orally in practising their English speaking skill.

## 3. Research Method

Type of this research is experimental research. This research needs to conduct the experiment to prove the hypothesis of the researcher. Seliger and Shahomy (1989: 136) stated that experimental research is concerned with studying in the effect of specified and controlled treatments given to subject usually formed in groups. In this research, there are two groups, those are experimental group and control group. Experimental group is group which is taught English speaking skill by using semantic mapping strategy. Control group is group which is taught English speaking skill without using semantic mapping strategy.

The subject of this research was the second grade students of SMP Muhammadiyah 2 Kalasan Yogyakarta. The first group is as the experimental group and the second as the control group. On this study, class of VIII A was selected as the experimental group and class of VIII C was selected as the control group. This sample selection was suggested by the teacher.

In collecting the data, the researcher used a test. The test in this research was employed to know the students' speaking skill before they get the treatment and after they get the treatment. The result of the test was measured to find out the differences between control group and experimental group. Data analyzing technique involves two parts: there were descriptive analysis and inferential analysis. Descriptive analysis is aimed at presenting the teaching and learning variable of the English test, the descriptive analysis used to describe sample of the data and to describe the different aspect of the data which include the mean, standard deviation, and categorization. The inferential analysis focused on answering the questions if there were significant differences. The inferential analysis used in this study is normality test, homogeneity test, and hypothesis testing.

## 4. Discussion

The data were analyzed as quantitative data. Based on the data of the pre-test and post-test, it is found that the data is normal and homogenous. The data is normal because the value of the *p* in the pre-test of experiment group is higher than the constancy (0.429>0.05), and then, in post-test of experiment group the value of the *p* is also higher than the constancy (0.081>0.05). The population is homogenous because the value of the *p* in the pre-test and post-test of both of two groups are higher than the constancy (p>0.05). The value of the *p* in the pre-test of experimental group is 0.255 and in the post-test is 0.103. The value of the *p* in the pre-test of control group is 0.126 and in the post-test is 0.326.

Therefore, the hypothesis was accepted because the value of the *p* of post-test in experimental class is 0.000. It means that *p* is lower than the constancy ($p<0.05$), it is also supported by the result of t-observed of post-test is 6.802 with $t_t$ is 1.671. So the t-observed is higher than $t_t$ ($t_o>t_t$). It can be concluded that the result of the post-test shows a significant difference in speaking skill of the students between the experimental group and control group.

Teaching English speaking skill by using semantic mapping strategy is effective, it can be seen from the mean score of both of those groups. The students' speaking skill taught using semantic mapping strategy belongs to the *good* category because the mean score is 18.1563, so it includes in the categorization scale of good category (16.875-<20.625). While the students' speaking skill taught without using semantic mapping strategy belongs to the *poor* category because the mean score is 13.0313, so it includes in the categorization scale of poor category (9.375-<13.125). And then, the mean score of the post-test in experimental group is 18.1563 while the mean score of the post-test in control group is 13.0313. It means that there is a significant difference between the two groups as seen at the scale of mean score, the mean score of experimental class is higher than control class (18.1563>13.0313). Regarding to the data described above, it can be summarized that the mean score between the experimental and control classes is significantly different. It can be concluded that using semntic mapping is more effective to teach speaking skill than without semantic mapping. This test answers the hypothesis of the researcher that "There is a significant difference in speaking skill of the students taught using semantic mapping and those taught without using semantic mapping to the second graders of SMP Muhammadiyah 2 Kalasan".

## 5. Conclusion

Teaching English speaking skill using semantic mapping strategy gives positive achievement, as showed by the increase of mean score of the test. Based on the result of the pre test and post test, it is shown that the pre test mean score is 12.0000 and the post test is 18.1563. It can be concluded that the students who belong to the experimental class get significant improvements. The description shows that there is a significant increases of students' speaking skill scores between the score of the pre test and the post test in the experimental group.

Teaching English speaking skill without semantic mapping does not give significant improvement, it can be seen from the mean score of the pre test is 10.6875 and the post test is 13.0313. It means that there is a not very significant increases in the mean score of the students' speaking skill between the pre test and the post test in the control group.

Teaching English speaking skill using semantic mapping is more effective than those taught without usingsemantic mapping, because the mean score of the pre test and the post test increases significantly from 12.0000 to 18.1563. It also supported by the value of t-observed ($t_0$) of the post test is 6.802 with the $p$=0.000. It means that *p* is lower than probability of *p* (<0.05), so the t-observed is significant. Therefore, the hypothesis which reads "there is a significant difference in speaking skill of the students English taught using semantic mapping and those taught without using semantic mapping to the second graders of SMP Muhammadiyah 2 Kalasan" was accepted.

## References


1. Fulcher, Glenn. 2003. *Testing Second Language Speaking*. Great Britain: Pearson Education Limited.
2. Hornby, A S. 1995. *Oxford Advanced Learner's Dictionary (Fifth Edition)*. New York: Oxford University Press.
3. Kusumawardhani, Nita. 2012. *Improving the Speaking Ability of the Second Grade Students of MTs N Galur by Using Pictures in Communicative Language Learning in Academic Year of 2012/2013*. Yogyakarta: Universitas Ahmad Dahlan (Unpublished BA thesis).
4. Oxford, Rebecca L. 1990. *Language Learning Strategies: What Every Teacher Should Know*. New York: Newburry House Publisher.
5. Richard, Jack C and Rodgers, Theodore S. 2001. *Approaches and Methods in Language Teaching (second edition)*. Cambridge: Cambridge University Press.
6. Richard, Jack C and Renandya, Willy A. 2002. *Methodology in Language Teaching An Anthology of Current Practice*. Cambridge: Cambridge University Press.
7. Thornbury, Scott. 2005. *How to Teach Speaking*. Malaysia: Pearson Education Limited.
8. Seliger, H.W. and Shahomy, E. 1989. *Second Language Research Methods*. New York: Oxford University Press.



ISBN: 978-602-74576-0-7

# SOCIAL WEB ENVIRONMENT: POTENTIALS FOR INTEGRATED TEACHING AND LEARNING ACTIVITIES

NUUR WACHID ABDULMAJID
*Faculty of Computer Science, University of Alma Ata*
*Yogyakarta, Indonesia*

BAYU RAHMAT SETIADI
*Faculty of Teacher Training and Education Science, Sarjanawiyata Tamansiswa University*
*Yogyakarta, Indonesia*

Abstract

*The raising of global platinum era has powerfully effect to developing information technology. These technological developments have an impact on all areas, especially in the field of education. Teaching and learning requires a supporting media for easy fulfillment of competence in achieving goals in education. Social media is an alternative option to be integrated in teaching and learning activities. This article will discuss about Educational technology integrated with the social web environment in order to support teaching and learning. There are some applications that are discussed in this paper as the social web are utilized, among others: web 2.0, Edmodo, Google Group, etc. The social web are already available can be used as a media liaison between the students and the population of students in the educational world. The utilization of the social web that is available can be collaboration to the media of instruction.*

## 1. INTRODUCTION

Changes in the era of Global Platinum (Glo-Plat) is very strong effect on the development of information technology. Someone can communicate with anyone without any distance limited, space, and time. All information can be found quickly, so that can obtain information without having to travel or great cost.

Technological developments have an impact on various fields. The perceived impact is education. The impact is very diverse, such as administrative services, admission of new students, finance, curriculum, teaching and learning, evaluation, assessment, monitoring, etc. Everything that can be integrated with each other and accessed directly through online media. Thus, the utilization of technology development for the world of education can facilitate implementation of activities.

These technologies make the administrative services to be effectively and efficiently. Furthermore, the communication between leaders, teachers, and employees will work well, so that it easier for the coordinating and completing of specific problems. These technologies make the administrative services to be effective and efficient. One of the benefits of the use of technology can be felt by the committee for new students. With the help of online-based technology, the committee did not take a long time to select incoming students. Committee prospective students just entering data, then the system will be automatically selecting themselves based on the provisions already made.

Technologies can be useful to facilitate teaching and learning activities to be more productive and effective. Teachers can use the Internet to search for the latest materials or information related to the subjects that will be taught to students. In addition, teachers can use technology to facilitate the absorption of multimedia aided science presented. The next development, teachers can take advantage of elearning and gadgets to interact with students.

Basically, the technology may be useful in teaching and learning activities, but there are negative impacts. Negative impacts, among others: (a) students tend to be preoccupied with the gadget or the internet so absorptivity science presented very less; (B) students to easily access articles or redistributed sites, pornography, and violence; (C) easy action of plagiarism so that students are not serious in improving the competence; and (d) the ease of transacting goods are prohibited. The negative impact of social changes cause changes in the school environment for students. The rise brawl, SARA, and the crime could be caused by easy to get information from the internet.

These problems become a great challenges in education, so the need to include technology-assisted learning into the curriculum. This is expected to reduce the negative impacts caused by the development of these technologies. Besides expected by the technology can help to create a

global environment that puts students at the center of learning, having a lot of learning resources and learning facilities electronically. Thus, the teacher-oriented learning system will shift to student-oriented.

Student-oriented learning system is expected to improve the competence of students. Students can improve the ability to think critically, solving the problems, creative, either through a collaboration with the utilization of the facilities already provided. Such capabilities can ultimately honed when students graduate from school and can be applied in the workplace.

The purpose of this research is to determine: (a) What are social web that can be used to create student-centered learning and upgrading of skills of students in learning? ; and (b) how the application of these technologies in the classroom?

## *2. LITERATURE REVIEW*

### 2.1. Information and Communication Technology (ICT)

The terms of Information and Communication Technology (ICT) has long been known in Indonesia. ICT is a big umbrella term that includes all the technical equipment for processing and conveying information. That briefly about the meaning of information and communication technology (Sora, 2014). information and communication technology can be described as the combination of items of equipment (hardware) and computer programs (software) that allow people to have access, retrieve, store, organize, manipulate and present information by electronic means (Aleburu & Olusanya, 2007). Acording to (Ikuomola, 2007) information and communication technology as electronic based system of information transmission, reception, processing and retrieval device. Thereby, ICT is a technology that is used to process the information

Developments in information technology have various impacts of changes in humans. The change can be seen in terms of social, economic, political, cultural, education, etc. In other words, someone who can rule the world, it must master information.

Developments of ICT can be felt in the world of education. The introduction of information and communication technology has influenced all aspects of education (Robert, 2011). Paradigm changes in the learning focus on student learning. This paradigm makes the teacher merely a facilitator and supporter so that students become active in following the teaching and learning activities. Thus, the competence of students can increase rapidly.

### 2.2. Social web

The social web is a software designed to facilitate the social interaction. Social interaction online, that is: online shopping, education, web networks, discussion forums, etc. In the development of the social web is designed to be more flexible and varied. Such information can be managed either by the user to generate forms and new concepts.

There are many social web applications that can be utilized by the user, among others: (a) Flickr and YouTube to facilitate the users to share photos and videos; (B) Facebook can facilitate a user can interact with other users; (C) Kaskus can facilitate a discussion forum between the groups; and (d) Kompasiana and blogs can facilitate users to share articles or experience to other users.

### 2.3. Competence

21st century learning experienced a replace method of competence achieved by students. Through the learning framework, schools should provide basic subjects outside of basic competence in the understanding of the material to the students. Competence must exceed interdisciplinary so students can apply in real life. 21st century skills to bridge between knowledge, skills and attitudes of academics with real life.

The educational model is expected to meet the competencies that the students get lunch when already graduated from the school. Menurut (Morley, 2010) the primary aim of education is not to enable students to do well in school, but to help them do well in the lives they lead outside of the school. The main purpose of education does not require students to do something at school, but the purpose of education is to help students to be able to do something in real life when they are out of school (graduated). Through education, students are equipped with a competency in hopes of applying outside of school.

Definition and Selection of Competencies (Deseco, 2005) defines the competencies that is "A competency is more than just knowledge and skills. It involves the ability to meet complex


ISBN: 978-602-74576-0-7

demands, by drawing on and mobilising psychosocial resources (including skills and attitudes) in a particular context". Competence is more than just knowledge and skills. Scope of competence include the ability to meet the needs or demands of the complex using psychological resources, as well as skills and attitudes in the right context. A characteristic of competent people is always trying to be as effective as possible in implementing something. (Munadi, 2012).

Each individual must be a competent person on a particular field. A competent person is who has the knowledge, skills and behaviors to continue to develop the abilities (Munadi, 2012). Furthermore (Munadi, 2012) said that one of the characteristics competent people is always trying to be as effective as possible in implementing something. It requires a long process to gain the competencies in a particular field. A person can obtain a competency based of: basic skills, thinking skills, and personal qualities (Sudira, 2011). Therefore, the process of becoming an expert or competent requiring regular training.

### 2.4. Learning Media

Teaching and learning activities in general is a process of interactive communication between teachers and students. The communication process requires a learning medium to facilitate the teaching and learning process. The learning media is designed according to the needs for the purpose of achievement of competence can be maximized.

The principle of media are in an important position in order to realize optimal teaching and learning. Teacher resources capable of acting in a professional manner can make education a certain quality. In addition, teachers must be competent in managing information and facilitate the teaching and learning environment for students. Thus, teachers must be able to choose the media, both offline and online to support teaching and learning.

## *3. METHODOLOGY*

This study is a research and development refers to the development steps Borg & Gall. In the method of this study was limited to preliminary studies (concept) which includes three early steps, that is: (a) data collection and initial information, (b) plans, and (c) the initial product development. The research objectives are vocational workshops with subjects were students and teachers productive.

## *4. RESULT AND DISCUSSION*

### 4.1. Kind of social web for learning

The use of social web in the world of education to facilitate the delivery of content to students without distance limitations, space, and time. There are several types of social web, among others:

#### 4.1.1. Web 2.0

Web 2.0 can facilitate the users to interact between groups, for example, can upload material, teaching materials, instructional media (powerpoint / flash), etc. The use of the social web to the base web 2.0 requires users to adapt to operate the web technology.

Web 2.0 can be used as a interactive learning media, making it easier to communicate and interact with students. Web 2.0 generally provides various facilities to users, for example, upload files, create articles, live chat, video conferencing, quiz, etc. It is expected to produce a flexible learning, facilitate the delivery of content, and make it easier for students to deepen the material to be taught. Thus the teacher must master web 2.0 in order to take advantage of the facilities already provided.

Web 2.0 can help in the management of learning in school. One is the use Moodle-based Learning Management System (LMS). Teachers can set based on the Moodle learning purposes. With the LMS, is expected to facilitate learning and create an environment that is flexible.

There are several schools and colleges have made use of the online facility. One of them UNY address: http://besmart.uny.ac.id/. Here is a view online learning sites UNY:

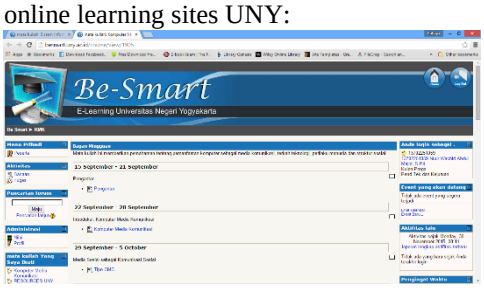



Figure 1. E-learning in UNY

#### 4.1.2. Edmodo

Edmodo is a social media-based learning that can be used by teachers, students, and parents. Additionally Edmodo is an e-learning program that is fun, flexible, and is not limited. Edmodo first developed at year end 2008 by Nic Borg and Jeff O'Hara.

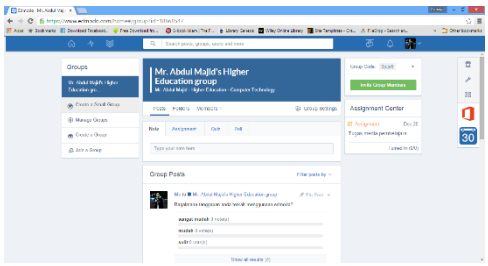



Figure 2. Views Edmodo

Edmodo is very useful in the implementation of learning, among others: (1) bridging teachers, students, and parents of students to communicate and discussion; (2) the teacher can monitor student activity; (3) creating a quiz or exam; (4) the teacher can include learning content, such as text material, video, audio, photos, etc; and (5) can be accessed anywhere, anytime without distance limitations, space, and time.

Edmodo provides several features that can be used, among others: polling, gradebook, quiz, library, assignment, file and links, award badge, and parent code.

Edmodo has advantages with their award badge feature, which gives awards to students' achievement. It can foster healthy competition among students to compete for awards.


Figure 3. *Award badge* in Edmodo

### 4.1.3. Google *group*

Google is basically a search engine that can be used to search for a variety of things. Google provides search facility or word as expected by the user, so the information can arrive quickly and easily. Such convenience can sometimes be used to search for information related to knowledge, research, etc.

In the process, Google is adding features to facilitate the users to communicate or interact. Facilities include: a Google search, images, maps, mail, Google+, Calendar, Drive, translate, docs, form, etc.

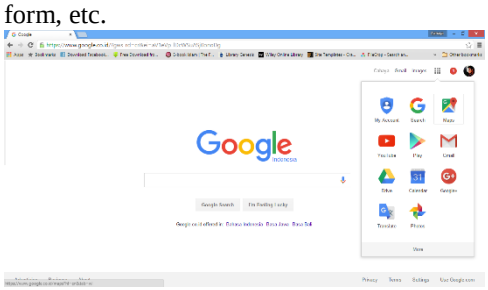



Figure 4. Display Google in web browser

The facility can be used in education. Utilization is certainly require strict supervision by the teacher, because Google does not have a protection feature well. Although basically can protect the sites can not be visited.

## 4.2. Using social web for learning

### 4.2.1. Divide the learning materials

Teachers can upload learning materials or content that can be accessed by students. This is expected to facilitate the students to learn the material that will be delivered or review the material that has been taught. Such material may be articles or text, video, audio, etc.

Moodle and Edmodo provides the facility for teachers to upload material. Teachers can provide material relevant to learning, so that students are expected to have a wealth of knowledge. In addition, students can share content related to learning.

### 4.2.2. Assignment task

Given assignment can be online, making it easier for teachers to check the tasks that have been collected. In addition, teachers can manage a collection of tasks in order to avoid delays in students.

Moodle, Edmodo, and Google provides duty collection facilities. But Google has limitations for gathering tasks compared with Moodle and Edmodo.

The task given can vary, takes the form of files, audio, video, images, etc. Teachers can improve the ability of critical thinking, problem solving, collaboration, working together in teams through the assignment. Thus, teachers must maximize the tasks given that these capabilities can be honed well.

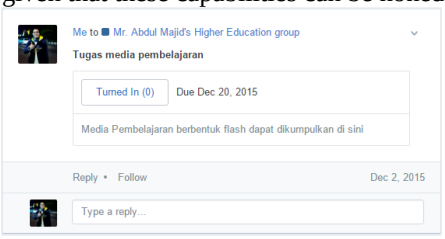



Figure 5. Assignment Task in Edmodo

### 4.2.3. Communication and discussion

Chat facilities are provided by Moodle, Edmodo, and Google to bridge between teachers and students. Teachers can communicate with students directly, either jointly or individually. It generated an interactive discussion between the two users.

In addition, among the students can communicate directly using the facility. Students can improve communication and collaboration between groups. It is suitable when applied method


ISBN: 978-602-74576-0-7

of project or group to complete the task. Students can rely on live chat to discuss them online without limits of distance, space and time.

**4.2.4. Computer Assisted Test (CAT)**

Social web provides the facility of online questions that can be used by teachers. Moodle, Edmodo, and Google extends Quiz with some variation of forms, such as: multiple choice, essay, true-false, scale, etc.

In Moodle and Edmodo has advantages than Google with own facilities, among others: (1) random questions, this facility serves to randomize questions so that each student gets a questions of a different order than the other students; and (2) the time limit, serves to give deadlines finishing problems.

**4.2.5. Distance learning**

Moodle has a facility of video call or video conference. It can be used if it is not possible to conduct face-to-face between teachers and students. Video calls can be used to invite experts or speakers outside of school, but can not come to the school. Thus, students can add knowledge and enhance the ability of a person skilled.

Moodle has been integrated with several video call applications, including: Skype and BigBlueButton. Both modules can be installed in Moodle to allow the video conference can proceed smoothly. The second module of the BigBlueButton has complete facilities by displaying a webcam, chat, integrated VoIP (Voice over IP), paper presentations, attenandce list, whiteboard, etc.

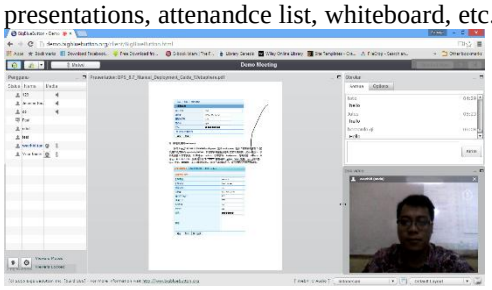


Figure 6. Utilize a web conference facilities

**4.2.6. Facility usage of Google office**

The transition from desktop-based into a mobile-based make some smartphones / tablets are increasingly used. The advantages of smartphone that can be used flexibly and can be carried anywhere. In addition it has been integrated with online making it easier for users to send something easily to other users.

Smartphone can be integrated with Google, so users can take advantage of the facilities provided. There are some facilities that are provided by Google with particular regard to the Office, among others: (1) Google Docs, used to create a report form with a brief word; (2) Google Sheet, used to create a report in the form of tables; (3) Google Slides, serves to create media presentations; (4) Google Form, used to create a form; and (5) Google Drive, functioning as a storage area.

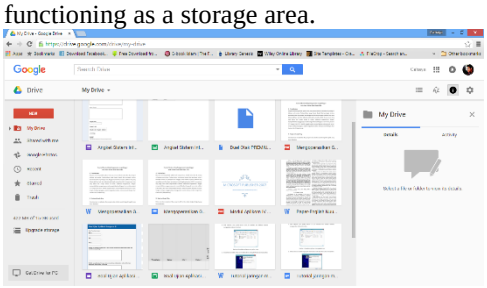


Figure 7. Display Google Drive in web browser

**4.2.7. The assignment with case studies**

The case study can be applied to students through the Social Web, so students can take advantage of the facilities provided by the Internet. Students can develop skills of critical thinking and problem-solving with trying to find a solution to complete the task. Teachers can provides new cases that are relevant to the lesson so that the skills and knowledge students will develop.

Before giving the task, teachers are expected to provides basic instructions to resolve the case. In addition, teachers can upload materials as a source of reading. Thus, students will be trained to solve problems and increase knowledge by itself.

**4.2.8. Give awards to students**

Reward and punishment is an integral part of education. Students who excel rewards, as well as students who break the rules to get the punishment. Edmodo reward facilities that can be used by teachers. Through the reward, students can compete to get it. Here are the kinds of reward badges provided by Edmodo: good citizen, good question, hard worker, homework helper, participant, perfect attenandce, start performer, student of the month, and the other awards that can be made by teachers.

## *5. CONCLUSION*

Based on the results of research and discussion of this study, the following conclusions can be drawn:

a. Social web that can be used to create student-centered learning and increase students' learning skills, among others: Web 2.0 (Moodle), Edmodo, and Google group.

b. Application of the social web in the learning environment, among others: (1) dividing the learning materials; (2) a collection point for the task; (3) communicate and discuss; (4) computer-assisted test (CAT); (5) distance learning; (6) the use of Google office facilities; (7) the assignment with case studies; and (8) giving awards.

## 6. REFERENCE


Aleburu, & Olusanya. (2007). Use of ICT to enhance teaching and learning of technical and vocational trades in primary schools. In S. M. B. Yalams, B; Adebayo, S.A; Puyate, S.T. and Onwuchekwa AK (Ed.), *Technical and Vocational Education: A challenge to the Nigerian Education Reform Agenda*. Kaduna: Slimline Communications Ltd.

Deseco. (2005). Defining and selecting key competencies: Executive summary.

Ikuomola. (2007). Enhancing technical and Vocational education for sustainable development through informational and communication technology. In S. M. B. Yalams, B; Adebayo, S.A; Puyate, S.T. and Onwuchekwa AK (Ed.), *Technical and Vocational Education: A challenge to the Nigerian Education Reform Agenda*. Kaduna: Slimline Communications Ltd.

Morley, R. (2010). Workplace learning guide 2010 learning for life in the 21st Century. Retrieved November 28, 2015

Munadi, S. (2012). *Penerapan assesmen kinerja dalam praktik proses permesinan untuk pengembangan budaya kerja peserta didik*. Paper presented at the Pidato Pengukuhan Guru Besar di Universitas Negeri Yogyakarta.

Robert, O. O. (2011). Information and communication technology awareness among technical college teachers in Benue State, Nigeria. *International Journal of Vocational and Technical Education, 3*(6), 75-80.

Sora. (2014). Mengenal Pengertian TIK Atau Teknologi Informasi And Komunikasi. Retrieved December, 10, 2015

Sudira, P. (2011). *Praksis ideologi tri hita karana dalam kebudayaan kompetensi pada SMK Di Bali.* (Doctoral Disertation), Universitas Negeri Yogyakarta.



ISBN: 978-602-74576-0-7

# *CONTEXT BASED LEARNING* (CBL) IN ISLAMIC EDUCATION THE ACTUALIZATION LEARNING METHODS OF PAI IN HIGHER EDUCATION

LUKIS ALAM
*Sekolah Tinggi Teknologi Nasional (STTNAS) Yogyakarta, Islamic Religious Education (PAI)*

Abstract

Education in Indonesia get a very big concern from the government. Education aimed at improving the quality of human resources, and as a vehicle to improve the quality of human resources. So that education is the most important means for realizing the advancement of the nation. With quality education, will create qualified human resources.

The actualization of of national education goals above are expected to implemented in various models and forms of education in Indonesia. One of the main forms that must be maintained and implemented is religious education. This is because education religion (Islam) is a more special way emphasized to develop the values of Islam and human resources to be able to understand, appreciate and practice the teachings of Islam that inspired the national education goals in Indonesia.

Islamic Religious Education (PAI) has an important role in the establishment of the personal learners. Expected the personal formation is Muslim personality and the advancement of society and a culture that does not deviate from the values of Islam. So far, PAI is still dominated by a paradigm which states that a knowledge must be memorized. In addition, the class situation is still largely focused on the teacher as the main source of knowledge, as well as the use of the lecture method as the primary choice of teaching and learning strategies.

Regarding this matter certainly through the contextual approach, the lesson will be more meaningful. This approach can be done by implementing a variety of strategies in it. One of them by using a model- Context Based Learning (CBL).

*Context Based Learning* is deemed relevant context to bring the real atmosphere in the learning process, including learning in higher education. Because contextually, PAI can provide linkages to the other materials, especially relating to general materials, so that students interested in exploring further. Approach or model of learning that are considered appropriate and fitting in such learning is Context Based Learning (CBL).

Keywords : Lecture, Model, Education, Material, Contextual

## 1. Introduction

Education is one of the most important aspects in human development and perhaps the most influential social institution in any societies. In general, education is to transmit a common set of beliefs, values, norms, understanding from the adult generation to its youths. Islam looks at education as a form of worship (ibadah) where Muslim share a common set of values based on the Quran (the fundamental and most reliable source for many fields of knowledge) and Sunnah. Hassan, K. (1989) describes Education from the perspective,as a long life process of preparing an individual to actualize his role as a vicegerent (Khalifah) of Allah on earth and thereby contribute fully to the reconstruction development of his society in order to achieve well-being in this world and hereafter. The functions of education in the society cannot be under estimated. Education brings about individual development, thereby developing the individual's potential to the highest level. Education also prepares an individual to adjust well in the society and to develop a high sense of responsibility to self and to the society. It enables a person to think critically and constructively.

Also The purpose of education is to guide the student toward these goals. People donot achieve their potential automatically, as they are forgetful by nature and open to the influence of injustice and ignorance. It is through education they could develop the wisdom and faith that will help them to love doing well and never lose sight of their relationship with God.

The writers strongly believe that the function of Islamic education. should endeavor to teach and help students acquire different aspects of knowledge within the parameters of Islam through the use of a well designed curriculum.

Since 1966, religious education has been compulsory for every student at every level of education in Indonesia, including primary, secondary and undergraduate (S-1) levels. At the same aspect, Islamic teaching started in Indonesia as early as around the 13$^{th}$ century in the form of Qur'anic study in village mosques, prayer houses and the private homes of community

religious teachers for young children of six to eleven years. Over time, different types of Islamic schools came into existence in different parts of Indonesia, such as pesantren and pondok (both mostly in Java and Kalimantan), surau (in West Sumatra), dayah (in Aceh), madrasah and sekolah Islam (Islamic schools), with pesantren, pondok, surau, and dayah generally regarded as 'traditional' Islamic educational institutions that have a long history dating from the early introduction of Islam in Indonesia.

The forms of religious education that reflected in the education act of 2003 were not only limited on conselling, teaching and religious training (as mentioned in the education act of 1989) but they gave wider move. Any activities could be admitted as an effort for religious education as long as it developed learners to make them having a religious and spiritual effort, self control, personality, intelligence, manner and skill needed for oneself, society, the nation and the country. Someone might be called as a learner if he had an active attitude and manner to develop his own potencies.

The term of religious education was closely tied with the concept of active religious learning and its developments and values as the development of constructivist model in a democratic and developing countries. It was also similar to a creative idea in education process facilitating students to internalize their learning experience with their consciousness instead of forces. From such premise, there is a raising model of PAIKEM (stands for active learning, innovative, contextual, elaborative and fun).

Many people are confused with the meanings of the terms Islamic education andIslamic religious education. Both terms are often considered the same. If somebody talksof Islamic education, it is clear that the contents are specifically Islamic religiouseducation while Islamic education will be about Islamic education. However, the two terms carry different contents.

Muhaimin, as explained in his book, "Nuansa Baru Pendidikan Islam" (The New Nuance of Education), states that he has the same opinion as Tafsir in the difference between Islamic religious education and Islamic education. Islamic religious education is the activity of teaching based on the religion of Islam. As a subject, Islamic religious education should be named the religion of Islam, as it concerns the religion itself and not Islamic education. Meanwhile, it is the activities or efforts of teaching Islam that are considered Islamic religious education .

With that, it is clear that the position of Islamic religious education as a subjecttaught at either public or private institutions is an effort to spread the true knowledge ofIslam which is not only meant to be understood and appreciated but also to be applied in daily life. This includes making the ablution (wudhu'), praying, fasting and performingother forms ofibadah (acts of worship), especially ibadah mahdhah (acts of worship which connects one self to Allah) as well as ibadah which connects students with other human beings. This includes fulfilling the zakat, giving charity, handling business transactions and other forms of ibadah.

Islamic religious education is a subject that gives guidance and instructions on religiousteachings so that students will wholeheartedly believe that there is a God whose commands must be obeyed by performing *ibadh* and having a good character. Religious education is education directed towards religious development. Meanwhile, the word "Islam" itself comes from the Arabic word *aslama* which means safe to submit oneself to obey and to be obedient.

According to Omar Muhammad Al-Toumy Al-Syaibany in Amir Abiyan, religious education strives to change an individual's behaviour, his social life as well his relationship with his environment based on Islamic values.

Based on the definitions provided by Muslim scholars as outlined above, it is clear that Islamic religious education is the process of building and shaping Muslim character that is *mu'min* (faithful) and *muttaqin*(devoted) to Allah by emphasising and nurturing values in Islamic teachings so that they will understand Islam and use this knowledge to achieve happiness in *the dunya* (world) and *akhirah* (hereafter).

This shows that Islamic religious education is an effort of shaping students to believe, understand, appreciate and apply the teachings of Islam through guidance, lessons and/or training while being aware of the requirement to be respectful towards other religions so that there is peace and unity in the community.

One of the most important agent to guarantee the success of Islamic Religious Education in bringing good understanding is teacher. Teacher plays important role in delivering understandings of religious aspects including doctrines, practices, and history to students. As for a teacher, an honored profession in Islam, his or his position was an

example for students which make the existence of this profession more crucial. Such ideal was mostly based on philosophical basis of Islamic education which see student as subject that throughout the teaching process should be a 'whole person' in his or her 'physical, intellectual, moral, and spiritual dimensions'. Proper understanding is required by teachers so that the religion can be accurately described when it was addressed by students.

In other word, teachers are required to approach the material they teach both normative and historical perspectives in which the first was well written and documented in holy scripts and the second in daily context of Muslims.

The teacher should not only capable to explain agreed terms in subject he or she teaches but also to demonstrate specific reason behind it. A teacher is also obliged to enlighten students on relations between terms in the subject along with its environment both theoretically and practically.

Through a contextual learning model, there will emerge understanding and easier applicability of Islamic Religious Education in higher education. It has been revealed that with the use of context based learning model to teach Islamic religious education, there is improved knowledge and understanding of the religious values. Using a contextual teaching and learning model can make learning more realistic, concrete, actual, enjoyable, and meaningful, because students are actively engaged in the development of learning materials which are application to real life situation.

## 2. State of Problems

Considering the aforementioned outline in the background of the study, several pressing problems related with Islamic religious education lesson in higher education were found. First, there had been a misconception (yet, hadalways been practiced) which stated that learning meant filling student's mind with knowledge (transfer of knowledge). The existing learning had not attempted to contextualize and link the taught materials with the real life situations of the students, and to encourage the students to connect their acquired knowledge with the implementation in their daily life.

Therefore, an effective learning process was needed to internalize the values in actual context and was not just viewed as a series of material, concepts, theories. The materials had to be contextualized and internalized, and applicable, for the students, so that the materials could be made the basis for them to act upon salat in their real daily life.

Based on the aforementioned considerations, the problem in this study was formulated as follows: *Context Based Learning Islamic Religious Education at Higher Education*. Contextual Teaching and learning: The complex and advance challenges of the future life, requires education to prepare and equip students with real life skills. The students have to be made aware of the goals they need to reach, the challenges they might face, and skills they need to master, additionally improve the competency of Islamic Religious Education lecturer in teaching methodology

## 3. Discussion

Ideally, Islamic religious education should be able to respond the challenges brought by the modernity at the level of theory and application. Therefore, teaching and learning Islamic religious education should be developed as the relevant subject to cope the contemporary needs of the modern world in light of the principles as stated in al-Quran and al-Sunnah. Indeed, Islam should become part of global modernity and should be brought into line with the age. Proud with the glory of the past Islamic civilization but stagnancy with innovating new ideas at the practical level do not help Islam to be seen as the relevant subject in this modern world. Islamic studies have to retain all principles of Islam and to inspire all human beings on the ways to live in this modern world in coexistence and peace. Unfortunately, the current situation of the Muslim Ummah indicates the failure of Islamic religious education as part of Islamic studies to address these challenges comprehensively that leads Muslims linked to backwardness and stagnation.

The objective of this paper is to investigate educational techniques and strategies in teaching Islamic religious education in higher education. A curriculum which is well to fulfill the teaching objectives as applicable to the country's philosophy should be carried out through the proper strategy, approach, method and technique.

### 3.1 The Pedagogy Strategies in Religious Islamic Education

Nowadays, many educators have realized that the world is constantly changing so education also needs to be able to develop people who will be

able to survive and succeed in the changing world. The current social condition is rapidly changing and requires youth to be able to think fast, to make wise decisions and to have the ability to produce critical comments. Therefore, they are encouraged to access critical thinking learning procedures, to acquire the steps that are needed to produce critical comments against he traditional teaching methods.

Agus Nuryatno (2008) indicates that the main critics of Islamic teaching in Indonesian school are identified as normative, abstract and theoretical subject. Most of the classes are still using traditional approach instead of applying the critical teaching approach. The Indonesian education is rather based on transferring the information, memorizing the lessons without the need to use critical skills.

Since the Indonesian population is viewed to be among the largest populated countries, thus, each million of its citizens has their own perspectives in perceiving every issue. People need to have the ability to communicate effectively and to have an open-mind. Implementing such effectiveness is viewed to be very much important as Indonesia needs to start implementing critical thinking skill starting from lower school level. Teachers / lecturer should aim to teach the youths the appropriate related skills in order to become critical thinkers.

In the classroom, teachers seem to use traditional method. Teachers are only viewed to be as facilitators of knowledge rather than stimulating students to think. Also Rosalina (2009) revealed that Indonesian schools' curriculum did not emphasize on teaching critical thinking directly, even though it is stated implicitly in the national curriculum. Consequently, teachers still lack the teaching of critical thinking.

Approach invariably means the effective way of teaching a subject to achieve the desired objectives. Teaching approaches consist mainly of inductive and deductive approach. The inductive approach would involve activities such as collecting, interpreting and generalizing the data in drawing up conclusions to form a new set of knowledge.

Deductive approach starts with one or more principles and formulas, principles, laws, theorems or rule be applied to the specific. The lecturers have different styles of approach to the students. Some teachers created a very strong guide and instructional teaching so that they can reach to their teaching aims more quickly and more effectively. Therefore the creation of a situation of a learning environment and of a complex teaching learning arrangement that considers the experience and the previous knowledge is crucial for the success of constructive teaching.

Technique is a manner of procedure, especially a regular and systematic way of accomplishing something, and secondly, it is an orderly arrangement of parts or steps to accomplish an end, which are random efforts that lack technique, and thirdly, the procedures and techniques characteristic of a particular discipline or field of knowledge. also could be the way of doing something, especially in a systematic way that implies an orderly logical arrangement usually in steps.

According Haidar some teacher feels that Indonesian teenagers still lack the understanding of and practicing the religious value. Thus, youth should be smart in order to adhere to the Islamic principles as their way of life, and in many cases to avoid misconception of Islam. It is important that Islamic studies' teachers encourage Muslim students to think about Islam as a way to strengthen their faith in Allah rather than to accept Islam blindly.

Using critical pedagogy to teach religious Islamic education could provide the adequate resolution to the issue of mind crisis to materials teaching. Thus, critical pedagogy analyses the teacher's and the students' beliefs, views, practices and values by defining the meaning on how they construct the truth.

Critical pedagogy can be identified as transforming teachers' teaching methodology, from traditional to liberal teaching and is based on the about democratic and problem-posing instruction of teaching. It is because critical pedagogy is involves learners' critical consciousness that locates a new consciousness. Critical consciousness that it is allows students to understand about the world, finding truth and a knowing their own belief from multiple perspectives. The introduction of critical pedagogy in Islamic education in Indonesian schools could be an important solution in the teaching of Islamic religious education. The Indonesian educational system needs to overcome today's globalization era. Hence, critical pedagogy is an appropriate strategy to invite students to consider and recognize the social condition of today's era. Consequently, teachers should know how to teach critical pedagogy

in order to stimulate students to think critically in the classroom.

### 3.2 The Context Based Of PAI Learning

In the context of education, approach invariably means the effective way of teaching a subject to achieve the desired objectives. Teaching approaches consist mainly of inductive and deductive approach. The inductive approach would involve activities such as collecting, interpreting and generalizing the data in drawing up conclusions to form a new set of knowledge.

The discussion about the rationale, forms and integration of Islamic religious education in higher education has been intensifying for some years now. The interest in these issues flows from very diverse motivations. Apart from the motivations, the possible purposes of Islamic religious education appear to be a central issue. Regarding Islamic religious education The future has already arrived. This future is visible by the remarkable approaches already in existence, which, however, still require more intensity and differentiation. After all, the wider development of religious education theories will be essential for the future development of Islamic religious education as more than theories in class.

Over the past few decades, many universities, faculties, schools and departments of higher education in many parts of the world have been undergoing a significant pedagogical shift from the traditional teacher-centred approach to a student-centred approach to teaching and learning. The traditional teacher-centred approach focuses on the teacher as the expert in transmitting knowledge to the student, who is the novice. In contrast, the student-centred approach places the student at the centre of the learning process and is generally intended to provide students with the autonomy to actively seek out and construct meaning from information and previous experience. This shift in teaching and learning from a teacher-centred approach to a student-centred approach is crucial; instead of concentrating on instruction (teacher-centred approach), the student-centred approach addresses the construction of learning from the student's own discoveries and focuses on student learning outcomes.

Some researchers view teaching and learning changes in educational models as shifts in paradigm. These have been described as moving from the "instruction paradigm" toward the "learning paradigm."

One major contributing factor which has an impact on educational paradigm shifts is the belief structure of teachers. The teacher is the crucial key change agent in educational reforms.

Basically, the teacher controls the instructional process, the content is delivered to the entire class and the teacher tends to emphasize factual knowledge. In other words, the teacher delivers the lecture content and the students listen to the lecture. Thus, the learning mode tends to be passive and the learners play little part in their learning process. So, according to the religious education teachers/lecturers, there are insufficient techniques and teaching materials that can be used when teaching. Nevertheless, the teachers are given freedom to choose other appropriate and effective technique that response to the needs of the students and that is compatible with the environmental situation

Some researchers indicate that most scholars define context-based learning as a process where learning is driven by the real world context, culture and tools in the learning environment. Context-based learning models are increasingly becoming an integral part of education reform in many parts of the world. The expert argue that most scholars define context-based learning as a process where the real world context, culture and tools in the learning environment drive the learning. Therefore, learners interpretation of the experiences would be different from that of the teacher. Hence the need for learners to be given an opportunity to take responsibility for their own learning through active participation and collaborative learning.

The subject of Islamic religious education is divided into various fields such as the Quran, Hadith, Tawhid, Aqidah (Faith), morals, religious practices and so on. The teacher / lecturer must have strong pedagogical content knowledge, which covers the knowledge of the subject's content, pedagogical knowledge of the subject, knowledge of the students' characteristics, the teacher's beliefs on the features of the subject and approaches to teaching, to produce effective teaching.

In addition, Islamic education teachers / lecturers must be good role models to the students and and always pay attention to students when teaching, Diversity of methods and techniques is necessary to attract the interest of students, retain their attention and arouse curiosity so that learning objectives are achieved.

**3.3 The Advancement of Learning Materials**

The importance of instructional materials in any teaching/learning process can not be over emphasized. This is for the fact that such materials enhance, facilitate and make teaching/learning easy, lively and concrete. Instructional materials as the name suggests, materials of visual, audio and audio - visual category that helps to make concepts abstracts and ideas concrete in the teaching/learning process. Hence, it is not just the use of tools of technology alone but a systematic integrated organization of machines hardware and software and man, teachers etc. In order to ensure an effective teaching learning process, it is important for the teacher to be thoroughly acquainted with the teaching resources and services available.

Many educationists agree that instructional materials bring about improvement in the teaching/learning process as well as permit teachers and students to interact as human beings in a climate where people control their environment for their own best purposes.

Also, most educators generally and equally agree that the creative use of variety of instructional materials will increasethe probability that student would learn more, retain better and bring about the skills they are expected to perform. Apart from their ability to process meaningful sources of information, Instructional materials help the teacher with the means for extending his horizon of experience as well as providing the teacher with rich sources of procuring communicative materials which could be produced jointly by the teacher and the students. The instructional materials also offer real experiences in giving the teacher basis for thinking and understanding. They supply concrete basis for conceptual thinking and therefore reduce meaningless responses of students. At the same time, they overcome the limitations of time, space and size by helping the students to understand things that are too small or too big, or too slow or too fast.

In the first instance, the origin of instructional materials in Islam could be traced to the time of Prophet Muhammad (S.A.W) and the early mission of Islam. The available learning resources during this period are: the scribes, flat bones, leaves of date - pall and bark of trees. As soon as a passage of the Holy Qur'an revealed, Prophet Muhammad (S.A.W) would memorize it and then communicate it to his companions who would do the same.At the same time, he would dictate the revelation to some ofhis scribes who would write it down on these available materials this way all the portions of the Qur'an that were revealed were written down and put together in one place. These served as the electronic or mechanical means of arresting, processing or restructuring visual orverbal information then. This is why the educational technologists traced the history of technology to this period which they referred to as stone-age.

Arifin also summarized the main methodology of teaching; Apart from giving the people information and knowledge; implementation and good teaching changes of patterns in learners' lives as a basic aim of teaching process; teaching activity is a guided activity and it has several aspects aimed at attaining the desired learning process; and the methodology of teaching is a process. The teaching methodologies of Islamic education require comprehensive innovation including materials teaching.

Teachers/lecturers need to select or improvise suitable Instructional materials or aids to facilitate teaching/learning and motivate their students. It finally offers some suggestions on how to make good use of Instructional materials for a teaching/learning of Islamic religious education. maximizing the process of Islamic education needs proper use of teaching methodologies that help to facilitate students' understanding of the value of Islam.

**4. Conclusion**

In the context of the implementation of Islamic religious education in higher education, the required move is related to the reconstruction of the methodological aspect, from a doctrinaire dogmatic traditional learning leads to a dynamic contextual actual one. To implement the contextual approach requires some basic principals, among others philosophical approaches to understand religious texts in order not to lose actual, contextual, and fresh ideas, as well as the need to understand willingness to accept good understanding between students.

Through Islamic contextual-based learning approach and sustainable development process started from the process of moral knowing, moral feeling to moral action, it is expectedthat students' potencies would develop optimally; in the aspect intellectual, emotional intelligence, social intelligence, and spiritual intelligence. Intellectual intelligence includes the ability to

distinguish between good and bad, right and wrong, as well as to set priorities. Emotional intelligence involves the ability to control emotions, to understand people's feelings, to be cooperative, to postpone temporary pleasure, and to have a stable personality. Spiritual intelligence involves the ability to realize that knows everything that we do, to do everything lillahi ta'ala, to patience in doing anything, to be thankful and grateful.

# COMPLETION ANALYTICAL THEORY OF LANGEVIN RUNS USING MACLAURIN SERIES TO IMPROVE UNDERSTANDING THE CONCEPT OF STUDENTS

ANDIKA KUSUMA WIJAYA

*Department of Physics Education , STKIP SIngkawang, Jl. STKIP Kelurahan Naram, SIngkawang, Indonesia*

*Abstract.*

This research aims to apply the mathematical foundations of the theory of Langevin in Maclaurin series particular in order to improve learning outcomes undergraduate student physics education. Forms of research is experimental in the classroom. Instrument collecting data about learning outcomes using pre-test and post-test. The data analysis of learning outcomes using the N-gain. The results showed there was an increase of 0.44 with learning outcomes being the criteria, so that it can be concluded that the study is sufficiently effective to improve learning outcomes undergraduate physics education.

Keywords: Maclaurin Series, Langevin Theory, Concept Understanding

## 1. INTRODUCTION

The purpose of the study of natural science (IPA) contained in the Regulation of the Minister of National Education of the Republic of Indonesia On Content Standards number 22 of 2006, education serves to give the provision of basic knowledge, either to go to higher education and applied in everyday life, develop skills -Skills in acquiring, developing and implementing the concepts of science.

The benchmarks of success of a strategy with an increase. Improvement is the process of increasing the quantity and quality. Of this increase can see the quality of a business or it is a business strategy or strategies right or not. It is also indispensable in understanding the concept. With increasing students' understanding of the concept also increases the quality of students.

Sudjana (2011: 24) explains that understanding the yield rate learning higher than the knowledge gained, it needs to know or know to be able to understand. In this paper the authors wanted to present the use of Maclaurin Series in the phenomena of statistical physics physics in particular Langevin Theory to increasing students concept understanding of Physical Education STKIP Singkawang.

## 2. THEORY

### 2.1. Maclaurin Series

For the special case a = 0 the Taylor series

$$\sum_{n=0}^{\infty} \frac{f^{(n)}(0)}{n!}(x)^n = f(0) + \frac{f'(0)}{1!}(x) + \frac{f''(0)}{2!}(x)^2 + \frac{f'''(0)}{3!}(x)^3 + \cdots \quad (1)$$

is called the ***Maclaurin series of the function f.***
And the polynomial.

$$\sin x = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \frac{x^7}{7!} + \cdots = \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n+1}}{(2n+1)!}$$

and

$$\cos x = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \cdots = \sum_{n=0}^{\infty} (-1)^n \frac{x^{2n}}{(2n)!}$$

For all *x*

$$\sum_{i=0}^{n} \frac{f^{(i)}(0)}{i!}(x)^i = f(0) + \frac{f'(0)}{1!}(x) + \frac{f''(0)}{2!}(x)^2 + \cdots + \frac{f^{(n)}(0)}{n!}(x)^n \quad (2)$$

is called *the* nth-degree Maclaurin polynomial of f at *a***.** (Boas, 1995)

### 2.2. Langevin Theory (Oktova, 2011)

Paramagnetic substance is a substance whose atoms have permanent magnetic dipole of the angular momentum of electrons. The presence of external magnetic field will create moments of force likely to lead to a certain magnetic moment. According to the measurements Pieree Curie in

1805, in a weak field and a sufficiently high temperature, large magnetization

$$M = C\frac{H}{T}$$

(3)

With C known as the Curie constant. However, this law can be explained when H growing larger or smaller temperature T, the magnetization menajdi infinite. If M reaches its maximum value and reaches a certain saturation point all molecular dipole magnet is aligned with the terrain. Classical theory that successfully explains the theory is the Langevin in 1905. Supposing the molecules of a substance having a permanent magnetic dipole moments are in the magnetic field with magnetic induction, magnetic potential energy that arises is

$$\vec{E} = -P_m B\cos\theta = -\vec{P}_m\vec{B}$$

(4)

$\theta$ is angle beetwen momen dipol magnet and induction 0f magnetic.Partition function is

$$Z = \sum e^{-P_m B\cos\theta / KT}$$

(5)

suppose

$$u = \cos\theta$$
$$x = P_m\frac{B}{KT}$$
$$Z = \sum e^{-xu}$$
$$Z = \int_{-1}^{1} e^{-xu}$$

(6)

Counting the *dN* molecule that is

$$dN = \frac{Nx}{Z\sinh x}e^{-xu}du$$

(7)

And

$$dN = \frac{Nx}{Z\sinh x}e^{-xu}du$$

(8)

Then the magnetization became

$$M = \frac{\int P_B dN}{V} = \frac{NP_m x}{2V\sinh x}\int_{-1}^{1} ue^{-xu}du$$

(9)

**2.3. Concept Understanding**

a. Definition of Concept Training

Comprehension Comprehension is a translation of which means "get it right". A person is said to be aware of a thing, if he understood correctly and be able to explain something that has been understood (Akmil, 2012: 25). Meanwhile, according to Bloom, understanding (comprehension) is a student's ability to prove that he understands the simple relationships between facts or concepts (Arikunto, 2010: 115). Based on the definition above understanding can be concluded that the understanding is the ability to understand or obtain the meaning of the information through thought.

The understanding of the concept according to Afrilianto (2010: 9) concept is an idea that can be used or allows one to categorize or classify an object something. According Trianto (2010: 189), is the concept of learning material in the form definition or understanding of an object, both abstract and concrete nature. In studying the material in draft form requires the full and complete understanding, could not be partial because it resulted in one concept.

According to Jihad (2012: 149) understanding of the concept is demonstrated competencies students understand the concepts and procedures flexibly, accurately, efficiently and precisely. Based on these descriptions, it can be concluded that the ability of understanding the concept is the ability to absorb the meaning of the main concepts of a material being studied and the concept of using a procedure done accurately, efficiently and precisely.

b. Indicators Concept Training

The ability of students' understanding of the concept can be recognized from the behavior he displays during the learning process as well as in workmanship matter. To determine the ability of

students' understanding of the concept that we can connect with indicators of understanding of the concept. The indicators that students understand a concept by SBC (Curriculum Education Unit) 2006 is sebahai follows:

1.Re-state a concept
2.Classify objects according to certain properties
3.Giving examples and non examples of concepts
4.Presenting the concept in various forms of representation
a.Developing a necessary and sufficient condition of a concept
b.Use, utilize, choose a specific procedure
c.Applying the concept or problem-solving algorithm.

(Hardiyanti, 2012)

## 3. METHODOLOGY

This type of research is quantitative research with experimental method. Experimental method is the research methods used to study the phenomenon of causation by providing specific treatment against the other under controlled conditions (Aliyansah, 2013: 57).

The design used in this study is the Pre-experimental research design using a form of "one group pretest posttest design", as used in this design one group of subjects. First measurement (pre-test), after it was granted the commission of (treatment) for a certain period of time, then the measurement (post-test). The treatment used completion analytical theory of langevin runs using maclaurin series.

Data collection techniques measurements referred to in this research is to provide a test, a test early (pre-test) and final test (post-test) the students about the equation straight line, the tests used in this study is the description (essay) comprising of 3 items.

Population in this research is the education of students STKIP Singkawang, while the sample is a 5th semester student of physics education. in addition, this research also used an experimental research in the classroom. research design in the classroom using one group pretest posttest design. First measurement (pre-test), after it was granted the commission of (treatment) for a certain period of time, then the measurement (post-test). treatment using a spreadsheet that is set in such a way to improve student understanding of concepts. to see increased student understanding of concepts using the N-Gain normalized (Lei Bao, 2006).

## 4. RESULT AND DISCUSSION

Based on the test results showed that the average value of post-test results higher than the average value of the pre-test. The average value of the pre-test is 34.27 and the average value of the results of post-test is 63.04, so that an improved understanding of the concept of students was 0.44. the factors that led to increased understanding of mathematical physics student by applying learning theory of statistical mechanics such as paramagnetic substance Langevin on a series of activities that emphasize the process of learning to think critically and analytically to seek and find their own answers to the question of a single problem.

As for the data of the pre-test and post-test as follow

Table 1. Average pretest and postest

| No | Student (S) | pre-test | post-test |
|---|---|---|---|
| 1 | S1 | 30 | 60,4 |
| 2 | S2 | 35 | 65 |
| 3 | S3 | 40 | 62 |
| 4 | S4 | 37 | 61 |
| 5 | S5 | 42 | 55 |
| 6 | S6 | 29 | 63 |
| 7 | S7 | 34 | 70 |
| 8 | S8 | 33 | 57 |
| 9 | S9 | 31 | 65 |
| 10 | S10 | 32 | 65 |
| 11 | S11 | 36 | 60 |
| 12 | S12 | 32 | 65 |
| 13 | S13 | 35 | 75 |
| 14 | S14 | 36 | 60 |
| 15 | S15 | 32 | 62,25 |
| | total | 514 | 945,65 |
| | average | 34,27 | 63,04 |

## 5. CONCLUSION

Of the research that has been done that the research could improve understanding of the concept of physical education students in STKIP Singkawang. The results showed there was an increase of 0.44 with learning outcomes being the criteria, so that it can be concluded that the study is sufficiently effective to improve learning outcomes undergraduate physics .

**6. ACKNOWLEDGMENTS**

Researchers would like to thank the chairman STKIP singkawang who have supported in terms of both moral and material. Researchers also do not forget to thank the committee.

**References**

1. Smith T. I, Thompson. J. R. and Mountcastle. D. B, *Phys. Rev Special Topics-Phys. Education Research* ***9.*** 020110 (2013)
2. K. M. Udayanandan, R. K. Sathish, A. Augustine, *Physics Education* (Publisher: www.physedu.in, 2014), Vol 30, No 2:pp 1-6.
3. Lei Bao, *Am. J. Phys.*, Vol. 74, No. 10, October 2006, pp 917-922
4. Oktova, Raden .2011. *Mekanika Statistik*. Yogyakarta: UAD Press
5. Aliyansah. (2013). *Metode Penelitian Pendidikan*: STIT SA Singkawang
6. Afrilianto. (2012). Peningkatan Pemahaman Konsep dan Kompetensi Strategis Matematis Siswa SMP dengan Pendekatan *Metaphorical Thinking*. *Jurnal Ilmiah Program Studi Matematika STKIP Siliwangi Bandung*. Vol. 1 No. 2, September 2012.
7. Akmil, dkk. (2012). Implementasi CTL dalam Meningkatkan Pemahaman Konsep Matematika Siswa. *Jurnal Pendidikan Matematika*. Vol. 1 No. 1 (2012).
8. Arikunto, Suharsimi. (2010). *Dasar-dasar Evaluasi Pendidikan*. Jakarta: Bumi Aksara.
9. Hardianty, Isti. (2013). Upaya Meningkatkan Pemahaman Konsep Matematika melalui Pendekatan Problem Posing dengan Pembelajaran Kooperatif tipe STAD (Student Teams Achievement Divisions). http://eprints.uny.ac.id/SKRIPSI_ISTI_06301241046.pdf. Diakses 1 Februari 2016
10. Jihad, Asep. (2012). *Evaluasi Pembelajaran*. Yogyakarta: Multi Presindo.
11. Trianto. (2011). *Model Pembelajaran Terpadu.* Jakarta: Bumi Aksara.

# AN ANALYSIS OF THE STUDENT'S ABILITY OF MATHEMATICAL CRITICAL THINKING WITH VISUAL LEARNING STYLES IN LEARNING CYCLE 7E

ROSMAIYADI
STKIP Singkawang, Singkawang
West Kalimantan Province, Indonesia

**Abstract**

Critical thinking ability is one manifestation of the learning of mathematics in HOT (High Order Thinking). Based on data in the field that the critical thinking ability of the students is still low. In studying the subject matter, students have different learning styles. This research aims to test the effectiveness of learning model learning Cycle 7E, the influence of learning style against the students ability of critical thinking and analysis of students' mathematical critical thinking ability in visual learning style.

The methods used in this research was Mixed Design Model; the Sequential Explanatory Method. The subject of this research is grade VIII. Collecting data of learning style using questionnaire and mathematical critical thinking ability with tests. And also using Learning Cycle 7E model on the material of the cube and the beams. Quantitative analysis was conducted to test the effectiveness of learning "Learning Cycle 7E" model, and to test the influence of learning style against the ability of mathematical critical thingking. While the analysis of the qualitative done to deepen the results of research on mathematical description of the critical thinking ability of students in visual learning style through interviews.

Based on the data analysis, so the conclusion is that Learning Cycle 7E model was effective in improving the ability of mathematical critical thinking, it can be seen the result that the proportion of students who got a value KBKM greater than or equal with KKM = 70 have exceeded 75%, while the average difference test of class experiments and classroom control were t-count=6,497>t-tabel=1,671. this shows that the average students' mathematical critical thinking ability taught by Learning Cycle 7E more than average than students' mathematical critical thinking ability taught with conventional learning. Learning styles affect the students' mathematical critical thinking ability, this is retrieved based on the test results of the Kruskal Wallis with Asym value sig is 0.046 < 0.05. The visual learning style has the best ability of mathematical critical thinking on inference, deductions and interpreting information aspects. While on, assumptions and evaluation of argument aspects have been quite good.

**Keywords**: critical thinking, Learning Cycle 7E, learning style

## 1. Introduction

Mathematics is a discipline that has the typical properties. The specificity of it deals with the ideas or abstract concepts that are arranged in a hierarchical basis. Mathematical subjects need to be given to all students starting from primary schools, to equip learners with the ability to think logically, systematic, analytical, critical, creative and innovative, as well as the ability of cooperation. The competencies required for the learners can have the ability earn, manage, and utilize the information for better lives in a State that is always changing, uncertain, and it is very competitive. In carrying out the learning of mathematics, it is expected that learners should be able to feel the usefulness of learning math.

Study on the 2013 curriculum has a goal to reach the thinking ability, high level or High Order Thingking (HOT) early on. Critical thinking and creative thinking is an embodiment of HOT. A wide definition of critical thinking ability has been widely coined by experts. Sukmadinata (2004) States the critical thinking skills is the reason regular, systematic in assessing skills, solve problems, appealing the decision, giving the beliefs, assumptions, and analyze scientific searches. Desmita (2012) citing the opinions expressed by Beyer that critical thinking is a set of specific operations that may be used one by one or in combination or sequence and each operation of critical thinking the load analysis and evaluation. Santrock explained that critical thinking is a reflective thinking and productive as well as involving the evaluation of the evidence. Glazer (2001) defines that critical thinking in math is the ability and disposition to incorporate prior knowledge, mathematical reasoning, and cognitive strategies to generalize, prove, or evaluate a situation foreign mathematical reflectively.

Rochmad (2013) research results note that the skills of teachers and students in creative thinking in the low category. Creative thinking skills of students classified as low is indicated from the critical thinking

ability of the students is low. As the opinion of Noddings which has been cited by Saurino (2008) stated a lot of students who are less critical, when students are given questions that contain critical thinking or solving problems students often skip and not even working on it. This is in accordance with the results of early studies on SMP Negeri 19 Singkawang. On the process of learning when students are given drills non routine problems, most of the students are having difficulties and are not working on the problem when confronted on solving math problems. The difficulty is because the students are still unfamiliar with the non routine problems and also because of the students critical thinking ability is still low. It is known from the work of students at daily examination geometry, geometry flat sided material. On the question of the form of problem solving students can only write things that are known on the matter, without a settlement plan and include complete. They tend to work the problem is only with the concept being taught the teacher without using or linking the concepts that have been studied previously. So when answering a question they always use a flat geometry formulas learned only.

An effort to increase critical thinking ability requires improvements in the learning process. Hence the need to have a study with particular methods or models that can improve the activity, motivation and ability of critical thinking students so that learning to learners can be meaningful. The model of learning which has the characteristic of which is the learning Learning Cycle model 7E which consists of 7 stages (Eisenkraft, 2003), namely: Elicit, Engage, Explore, Explain, Elaborate, Evaluate, and Extend.

In learning the material in the classroom, every student has different characteristics among the students that one and the other. One of the characteristics of students who need to be cared for at the time of the process of teaching and learning is a learning style. Nasution (2003) define learning style or learning style is the way that consistently undertaken by a student in the stimulus or capture information, how to remember, think, and solve the problem. DePorter and Hernacki (2013) stated learning style is a combination of how absorbs, and then organize and process information. Dunn and Griggs (2000) explains that learning style is a collection of personal characteristics that make an effective learning for some and not for others. Masriyah and Ilmiyah (2013) suggests that learning style is how different each individual belonging to process, explore, and learn the information easily.

DePotter and Hernacki (2013), stating that there are three types of learning styles, that is: 1) Visual, learning by way of viewing; 2) Auditorial, learn how to listen; and 3) Kinesthetic, learning by means of moving, working and touching. Every student must have a different learning style. So in following their learning using different ways to understand the material they are learning.

The process of implementation of the learning in the classroom teacher should pay attention to aspects of the student's learning style. This is in accordance with the opinion expressed by Karza (2013) that teachers should teach in accordance with the form and style of learning that is owned by its students. If the teacher carry out learning with attention to the aspect of learning style, then the learning in the classroom will be more enjoyable and students will more readily understand what they learn. As quoted by Mubarik (2013), research results Akyun stated that the teachers as the parties directly related to the education problems and directly interaction with the student is obligated to examine and investigate student learning styles that can affect the math achievement students.

Through learning Learning Cycle 7E expected students to be familiar with how to think critically, so that later can increase the ability of critical thinking strings for all of the students even though each student has their own learning style.

The results of the study bhattti and bart (2013) stated that the learning style and gender affect academic achievement. Mappeasse (2009) quotes the opinion of Gie that a good way of learning that will lead to successful learning, otherwise a bad way of learning will lead to less successful or failed to learn. The same with Indarto Mubarik (2013) in her research that concluded that there is a positive and significant effect between learning achievements and learning style. Research results gappi (2013) have different conclusions that stating that there is no significant correlation between of students academic.achievement and learning styles. The same is expressed by Adnan (2013) the results of his research stated that the relationship between the learning style and with math skills is weak. Based on some of the research results, researcher interested in examining how the relationship between learning style and mathematics achievement in this case is the ability of critical thinking mathematically and description students ability of mathematical critical thinking for each of students with different learning styles.

This research aims to test the effectiveness of learning Learning Cycle model 7E, influence learning

styles towards students ability of mathematical critical thinking, and and analyze the ability of mathematically critical think students with visual learning style

## 2. Research Methods

This research is a combination of qualitative and quantitative research or Mixed Method. The combination of model used in this study is Explanatory Sequantial type Design. The model research of Sequential Explonatory Design characterized by conducting data collection and analysis of quantitative data on the first stage, followed by the collection and analysis of qualitative data at the second stage, in order to strengthen the quantitative results of the research conducted in the first phase (Sugiyono, 2011). In this research, qualitative research as a primary method while quantitative research as a secondary method.

The subject is grade VIII SMP Negeri 19 Singkawang years 2014-2015 lessons. Data collection techniques used in this research is test, questionnaire/question form and interview. Questionnaire technique/question form is used to obtain data on student learning styles, test used to obtain data on critical thinking ability of the students by using mathematical ability critical thinking test, for while the interview techniques to obtain data more deeply and accurately how mathematical students critical thinking ability.

Quantitative analysis was conducted to test the effectiveness of the learning gained from KKM mathematical critical thinking ability of the students, and average comparative tests mathematical critical thinking ability of experiment and control class. To test the influence of learning style against the students ability of critical thinking mathematically using Kruskal Wallis test. To determine the of students mathematical critical thinking ability with a visual learning style on the qualitative data processing was performed in an interview about the ability of critical thinking mathematically in each indicator.

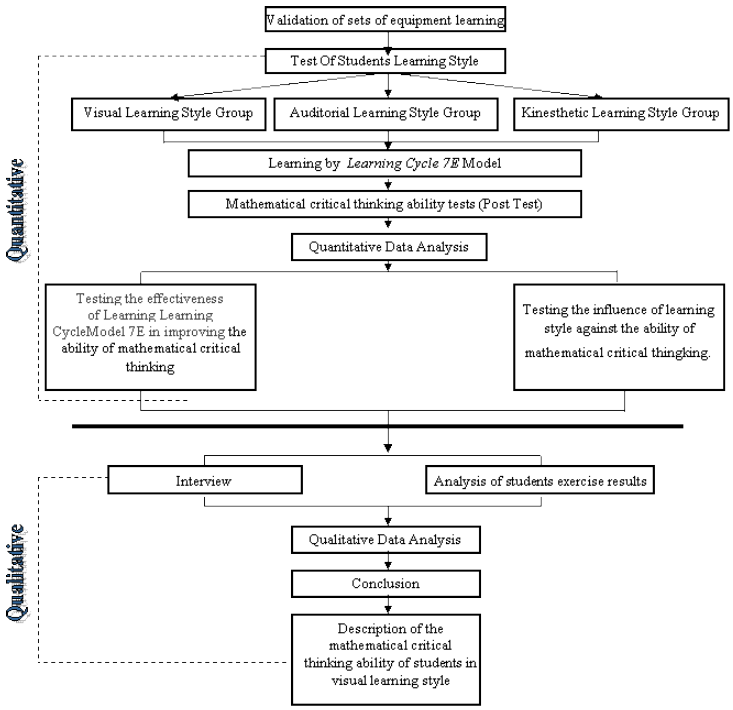



Figure 1. Flow Research

## 3. Results And Discussion

Based on the analysis of research data, acquired the learning effectiveness criteria that the Learning Cycle model first 7E have been met, it is obtained from the results of tests on critical thinking ability of the students to the study of the mathematical model of the Learning Cycle 7E obtained the results that students have reached individuals and classical complete. The second effectiveness criteria obtained from the test mean differences of ability of critical thinking mathematically. Obtained results that the critical thinking ability of the students taught by Learning Cycle 7E model better 75.81 if compared with the critical thinking ability of the students in the mathematical class control that only amounted to 64.92. Based on that data then the second effectiveness criteria two different test average is met.

The result of this research in tune with Mecit (2006) where the results of the study is that the Learning Cycle model learning 7E led to significant progress towards the critical thinking ability of students. Research results Siribunan and Tayraukham (2009) also shows the result of that critical thinking ability is higher than on the students who studied with conventional models. In General, through the learning of Mathematics by Learning Cycle 7E model can enhance students 'mathematical ability of critical thinking.

Learning Cycle 7E model was able to increase the ability of critical thinking mathematically because to increase critical thinking ability of students ' mathematical learning needed which is constructive, interactive and reflective learning and one that has the nature of Learning Cycle 7E model. This is same with the opinion of the Treffers, de Moor and Feijs (Goffree & Dolk, 1995) says that there are three pillars of learning mathematics in building mathematical mind-set and interpersonal intelligence students, namely learning that is constructive, interactive and reflective. Learning Cycle 7E model are constructive because the lesson that in the process of knowledge built from knowledge itself and students through problems that are contextual. Learning Learning Cycle model 7E apply interactive properties in the learning process because more students played an important role in the learning process through discussions and presentations and teachers only as a facilitator only.

Based on the results of data analysis toward the student's learning style questionnaire obtained that from 28 student a lesson that students in class learning Learning Cycle model using 7E turns 8 student have a visual learning style, 9 student have a learning style auditorial and 11 students have a kinesthetic learning style.

Kruskal Wallis test done to test the influence of learning style against the ability of critical thinking mathematically. The reason for using Kruskal Wallis Test in this study was because the number of samples of each group learning style is small, so that the test uses non parametric test, in this case using the Kruskal Wallis Test. The results of the Kruskal Wallis test indicates that each group has a learning style differences of critical thinking ability. It can therefore be concluded that learning styles affect the student's mathematical ability of critical thinking.

The results of this research were research results with Bhati & Bart (2013) which States that the learning style and gender affect academic achievement, as well as research results the Mubarik (2013) revealed that there is a positive influence and significant between learning achievements learning style.

The average value of critical thinking ability of students ' mathematical differs between each group of learning styles. A group of students with a visual learning style has the ability of critical thinking mathematically the best if compared groups of students learning style auditorial and kinesthetic. The students mathematical of critical thinking ability with auditorial group learning style better than the students with kinesthetic learning style.

The results showed that the mean – median ability of critical thinking mathematically different students each group their learning style.. The study results also show that each group learning style has advantages and disadvantages in the ability of critical thinking mathematically in certain aspects, but based on the average value of critical thinking ability group visual learning style better than a group of auditorial learning style, while a group of auditorial learning style has a greater ability than kinesthetic learning style Group.

Critical thinking ability of each group learning style is different, this is because each learning style has advantages and disadvantages of each aspect of the mathematical ability of critical thinking. Each learning style have respective ways in absorbing and processing the information that he obtained. So it is with the aspects of critical thinking ability, each aspect has its own criteria on the problem, so that if the criteria of the critical thinking aspects in line with the way someone in absorbing and processing the information, then the students ' ability on these aspects would be very good, and vice versa. It is similar with the opinion by Bobbi De Porter & Mike Hernacki (2013) that learning style is a combination of how you absorb, manage and manipulate information.

The following table is presented the table of average ability of critical thinking mathematically grade VIII A on aspects of critical thinking ability based on their learning styles group.

Table 1. The Average Ability Of Critical Thinking Mathematically Based On Student Learning Style

| Learning Style | Aspects of Ability Of Mathematical Critical Thinking | | | | | Average |
|---|---|---|---|---|---|---|
| | *Inference* | *Assumptions* | *Deductions* | *Interpreting Information* | Evaluation of *Argument* | |
| Visual Learning Style | 80.00 | 77.50 | 85.00 | 85.83 | 71.67 | 80.00 |
| Auditorial Learning Style | 82.96 | 66.67 | 78.52 | 80.74 | 67.41 | 75.26 |
| Kinesthetic Learning Style | 73.94 | 57.58 | 89.09 | 70.91 | 74.55 | 73.21 |
| Average | 78.97 | 67.25 | 84.20 | 79.16 | 71.21 | |

If the results are graphed it will look as follows.

Figure 2. Graph of Ability Of Mathematical Critical Thinking based Learning **Styles**

Group of students with a visual learning style has advantages on the assumptions and interpreting information, while on the inference aspect, deduction and Evaluation of Argument the group this learning

style is the second of three groups of learning style. On the assumption aspect, students who have a visual learning style it can collect information from the initial statement properly, besides the Group of students with a visual learning style also was able to connect between the initial information and assumptions made. On the interpreting information aspect of students with a visual learning style group can be identified early information on initial statements even though the information is far from enough to answer the problem or conclusions presented. In addition student with visual learning style have been able to dig deeper into the information contained in the initial statement. With the information he excavated, it is able to determine the selection of appropriately over the proposed conclusions using measures systematic and well completion.

On inference, deduction and the evaluation of argument aspect, a group of students with a visual learning style has the ability is good enough anyway, it can be seen from the results of research in which ability on these aspects has the average value is good enough.

## 4. Conclusion

Based on the analysis of the results of research, students ability of mathematical critical thinking in Learning Cycle 7E based on learning style at Junior High School 19 Singkawang that, (1) Learning Cycle 7E model effective in improving the ability of critical thinking mathematically; (2) learning style affects the students ability of mathematical critical thinking in Cycle 7E model; and (3) students visual learning style groups has the ability of mathematically critical thinking the most good on the assumptions and interpreting information. Whereas, in inference, deduction and evaluation arguments aspects have been good.

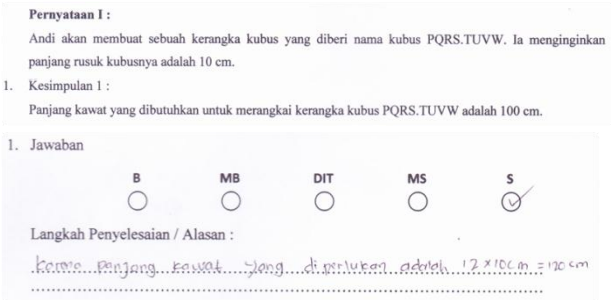
**Acknowledgments**

The Author very grateful to our respondents, students of SMP Negeri 19 Singkawang for their cooperation in conducting the study. Author also indebted to Mr. Masrukan and Mr. Khumaedi in State University Of Semarang for guadiance the researcher to finish this research. The Author very thankful to Mr. Andi Mursidi as Principal of STKIP Singkawang and family for undying support.

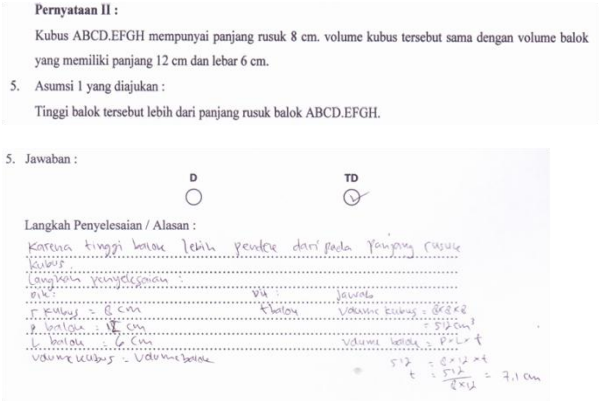
**Appendix A**

Axample students exercise result

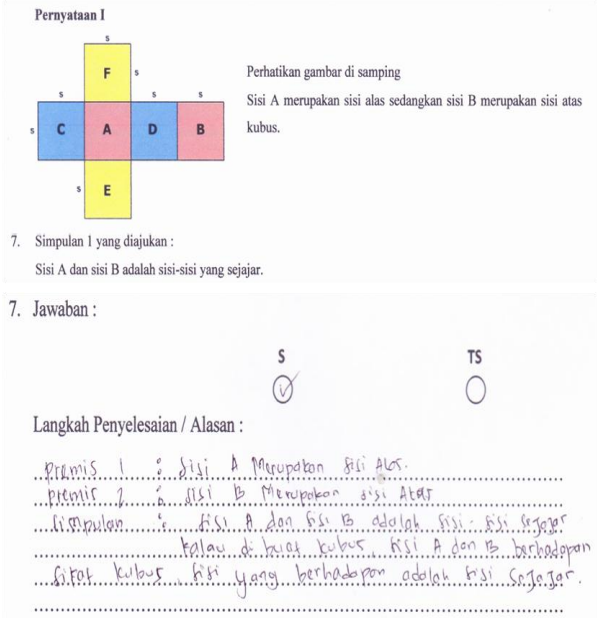
Inference Aspect



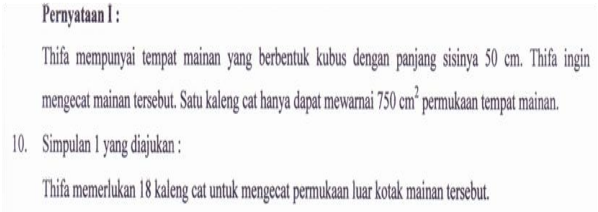

Assumptions Aspect

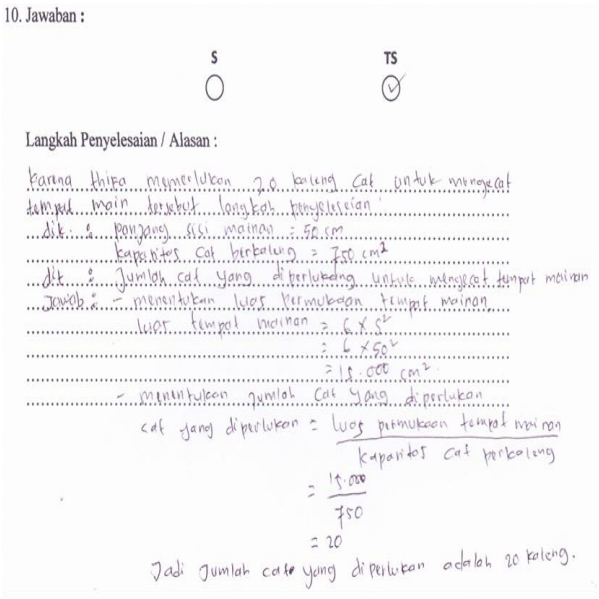



Deduction Aspect




Interpreting Information Aspect




10. Jawaban :

S ○ TS ⊘

Langkah Penyelesaian / Alasan :

karena Thifa memerlukan 20 kaleng cat untuk mengecat tempat main tersebut langkah penyelesaian

dik : panjang sisi mainan : 50 cm

kapasitas cat perkaleng : 750 $cm^2$

dik : jumlah cat yang diperlukan untuk mengecat tempat mainan

Jawab : - menentukan luas permukaan tempat mainan

luar tempat mainan = $6 \times s^2$

$= 6 \times 50^2$

$= 15.000\ cm^2$

- menentukan jumlah cat yang diperlukan

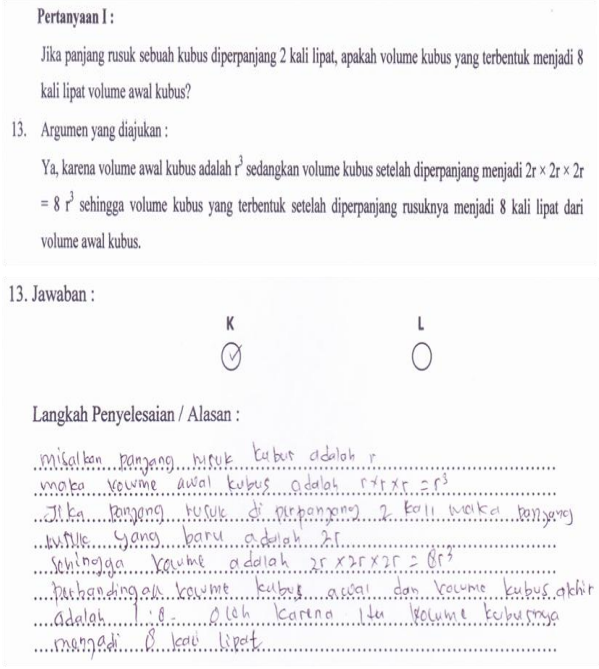
cat yang diperlukan = luas permukaan tempat mainan / kapasitas cat perkaleng

$= \frac{15.000}{750}$

$= 20$

Jadi jumlah cat yang diperlukan adalah 20 kaleng.

Evaluation of Argument Aspect


Pertanyaan I :

Jika panjang rusuk sebuah kubus diperpanjang 2 kali lipat, apakah volume kubus yang terbentuk menjadi 8 kali lipat volume awal kubus?

13. Argumen yang diajukan :

Ya, karena volume awal kubus adalah $r^3$ sedangkan volume kubus setelah diperpanjang menjadi $2r \times 2r \times 2r = 8\ r^3$ sehingga volume kubus yang terbentuk setelah diperpanjang rusuknya menjadi 8 kali lipat dari volume awal kubus.

13. Jawaban :

K ⊘ L ○

Langkah Penyelesaian / Alasan :

misalkan panjang rusuk kubus adalah r

maka volume awal kubus adalah $r \times r \times r = r^3$

Jika panjang rusuk di perpanjang 2 kali maka panjang rusuk yang baru adalah 2r

Sehingga volume adalah $2r \times 2r \times 2r = 8r^3$

perbandingan volume kubus awal dan volume kubus akhir adalah 1 : 8. oleh karna itu volume kubusnya menjadi 8 kali lipat

**References**


14. M. Adnan, Learning Style and Mathematics Achievement among High Performance School Students. *World Applied Sciences Journal*, 28 (3) : 392-399, 2013. Malaysia : IDOSI Publications . (2013).
15. R. Bhatti and W.M Bart, On the Effect of Learning Style on Scholastic Achievement. *Journal Current Issues in Education*, Vol.16 No.2 USA : Arizona State University (2013).
16. Desmita. *Psikologi Perkembangan Peserta Didik*. Bandung : PT. Remaja Rosdakarya. (2012).
17. B. DePotter & M. Hernacki, *Quantum Learning membiasakan Belajar Nyaman dan Menyenangkan.* Bandung: Kaifa (2013).
18. R. Dunn and S.A. Griggs, *Practical Approaches to Using Learning Style in Higher Education*. USA : Greenwood Publishing (2000).
19. A. Eisenkraft, Expanding the 5E model : A Proposed 7E Model Emphasizes " Tranfer of learning"and the importance of Eliciting Prior Understanding. *Journal the Science Teacher* , volume 70. Hal 58-59 (2003).
20. L. L. Gappi, Relationships between Learning Style Preferences and Academic Performance of Students. International *Journal of Educational Research and Technology*, Volume 4 [2] June 2013: 70 – 76 (2013).
21. E. Glazer, *Using Internet Primary Sources to Teach Critical Teaching Skills in Mathematics*. London : Greenword Press (2001).
22. F. Goffree and M. Dolk, *Standards for Mathematics Education*. Freudenthal Institute: SLO/NVORWO (1995).
23. S. Ilmiyah and Masriyah. Profil Pemecahan Masalah Matematika Siswa SMP Pada Materi Pecahan Ditinjau Dari Gaya Belajar, (online), *Jurnal MATHEdenusa*, vol. 2, no 1 (2013).
24. D. Indarto, *Pengaruh Gaya Belajar dan Motivasi Berprestasi Siswa terhadap Prestasi Belajar Praktik Instalasi Listrik Di Smk Negeri 2 Yogyakarta*. Lumbung Pustaka Universitas Negeri Yogyakarta (2012).
25. P. Karza, W. Rivaie, and M.Y. Ibrahim, Gaya Belajar Siswa Pada Mata Pelajaran Sosiologi Kelas XI di SMA Negeri 1 Sungai Raya Kepulauan, *Jurnal Pendidikan dan Pembelajaran* vol. 2, no 2 (2013).
26. M. Y. Mappeasse, Pengaruh Cara dan Motivasi Belajar Terhadap Hasil Belajar Programable Logic Controller (PLC) Siswa Kelas III Jurusan Listrik SMK Negeri 5 Makassar. *Jurnal Media Edukasi Pendidikan Teknologi dan Kejuruan*, vol. 1, no 2 (2009).
27. Q. Mecit, *"The Effect Of 7E Learning Cycle Model On The Improvement Offifth Grade Students' Critical Thinking Skills".* Thesis : Department of Secondary Science and Mathematics Education, MIDDLE EAST TECHNICAL UNIVERSITY (2006).
28. Mubarik. "Profil Pemecahan Masalah Siswa Auditorial Kelas X SLTA Pada Materi Sistem Persamaan Linear Dua Variabel". *Makalah. Seminar Nasional Sains dan Matematika II Jurusan Pendidikan* MIPA FKIP UNTAD (2013).

29. S. Nasution, *Berbagai Pendekatan Dalam Proses Belajar dan Mengajar*. Jakarta: Bumi Aksara (2003).
30. Rochmad. Keterampilan Berpikir Kritis & Kreatif Dalam Pembelajaran Matematika. Makalah. *Makalah disajikan dalam Seminar Nasional Matematika VII* tahun 2013 di Universitas Negeri Semarang. Semarang (2013).
31. R. Siribunnam & S. Tayraukham, "Effects of 7-E, KWL and Conventional Instruction on Analytical Thinking, Learning Achievement and Attitudes toward Chemistry Learning". *Journal of Social Sciences*, Vol 5(4): 279-282 (2009).
32. N. Sukmadinata, *Kurikulum & Pembelajaran Kompetensi*. Bandung : PT Remaja Rosdakarya (2004).
33. Sugiyono. *Metode Penelitian Kuantitatif, kualitatif dan R & D*. Bandung: Alfabeta (2011).

# THE DEVELOPMENT OF SET ACTIVITY BASED ASSESSMENT (ABA) TO MEASURE STUDENT'S SCIENCE PROCESS SKILL IN BASIC PHYSICS PRACTICUM COURSES II

EMI SULISTRI
*STKIP Singkawang, Singkawang*
*West Kalimantan Province, Indonesia*

SUNYOTO EKO NUGROHO
*Universitas Negeri Semarang*
*Semarang, Central Java Province, Indonesia*

SULHADI
*Universitas Negeri Semarang*
*Semarang, Central Java Province, Indonesia*

**ABSTRACT**

Written Test-based assessment system can not assess the whole of students activity in the lab. The activity in the form of process skill is not measurable, causing practicum lectures goal to develop these skills have not been achived. This development research, which aim to obtain the development Activity Based Assessment (ABA) set which are valid, reliable, practical and effective in order to measure students' science process skill in basic Physics II. Data processing research to test the validity and practicality done by calculated the average scores, reliability done by Alfa Cronbach reliability coefficient and agreement coefficient, while testing of the effectiveness done by *Intraclass correlation coefficient* (ICC) test and the average percentage. The set of ABA is valid by the validator since the average score of SAP validation is 3,71; guide practicum book is 3,23; content validation of ABA is 3,39; construct validation of ABA is 3,23 from maximum score is 4,0. The result experiment of ABA shows that the empirical validity of pre-lab instrument is 0.74 (valid), the realibility is 0.77 (quite high), the empirical validity of lab activity instrument is 0.97 (valid), the reliability is 0,83 (high), the empirical validity of lab report instrument is 0.92 (valid), the reliability 0.72 (quite high), the emperical validity of lab presentation instrument is 0.98 (valid), reliability is 0,7 (quite high). The result of learning set effectivity after experiment are as follow: (1) the assessment carried out by 8 observer to the ABA instrument have *Intraclass correlation coefficient* (ICC) value between 0,626 to 0,938 or exceed the consistency standards resulting in a very high consistent category; (2) students' science process skill is increase and place in level III; (3) the score average of student practicum using the ABA is over KKP (i.e.70). ABA set is stated practical based on the average of positive responses from lecturer and lab assistant that is 97,1% (very good) and student responses is 83% (very good). Based on the result of the analysis and discussion that ABA are valid, reliable, and effective for measuring the student's science process skills. In order to lecturers and lab assistants can use the ABA set as an alternative assessment.

**Keywords:** Set development, activity-based assessment, and science process skill.

## 1. Introduction

As an integral part in the learning process, the assessment should be one of the competencies required of an educator. Assessment should be done properly and appropriately and meet the principles of valid, objective, fair, integrated, open, inclusive and sustainable, systematic, beracuan criteria, accountable and educative..

According to Benjamin Bloom (Carin, 1993), there are three areas to focus assessment in educational purposes, namely (1) the cognitive aspect revolves around the knowledge (intellectual) that has a lot to do judgment, (2) the affective aspect that shows the attitude, and (3) aspect includes motor or psychomotor skills. It is clear that in addition to knowledge assessment, educators are also required to assess the skills of learners. Specialized in science learning, assessment can be defined as an activity that brings the content, the process of science and scientific attitude (Rezba, 2007). Science learning assessment should being conducted to assess learners' progress in achieving the science process skills in addition to assessment context and scientific attitude.

Process skills are skills related to the physical and mental abilities are fundamental owned, controlled, and applied in a scientific activity, so the scientists managed to find something new (Semiawan, 1992). Specialized in physics learning process skills are the result of learning obtained in the form of the ability of learners owned, controlled, applied in a scientific activity like doing physics activities practicum.

Course practicum Physics II with a load of 1 SKS, providing considerable benefit in practice the skills that students need and provide skills development opportunities as much as possible and

the process of scientific attitude. According Woolnough and Allsop (Rustaman, 1995), there are at least four reasons stated by experts of science education on the importance of practical activities one of which, the lab can develop the skills base and the integration process of learners.

Thus, lecturers practicum courses Physics II are required to design a practicum with the assessment process that can provide information not only knowledge but also skills of learners as a whole. Based on in-depth interviews to lecturers and lab assistant Department of Physics FKIP UNTAN, assessment used in practical activities Basic Physics II is 10% attendance of students, 20% pre-test / post-test, 30% report the results of lab work, and 40% of the response at the end of the entire lab activities. In line with the research Banggali, et al. (2011) which states that the assessment is only seen practicum students from pre-assessment lab to giving assistance practical implementation, assessment of practical reports and votes after the final exam lab. It is seen that the assessment process is still based on paper and pencil tests only measure knowledge (pre-test / post-test and the response) and the results / products lab without involving the entire student activities. If the system is sustainable, then the student process skills can not be measured.

Based on the facts on the ground, it needs an instrument-based assessment activities (Activity-based Assessment / ABA) to measure the skills of the students in the lab Physics II, the formulation of the problem in this study, namely: (1) how the characteristics of the ABA in the course of Practicum Basic physics II to measure skills students process ?; (2) whether the ABA developed a valid and reliable ?; (3) whether the ABA tools to effectively measure the skills of students in a practicum course Physics II ?; and (4) whether the ABA developed practical tools to measure the skills of students in a practicum course Physics II?

The purposes of this study, namely: (1) to describe the characteristics of the ABA in the course practicum Physics II to measure the skills of the students, (2) determine the validity and reliability of the device ABA developed, (3) analyze the effectiveness of the ABA in measuring the skills of the students in practicum course Basic Physics II, and (4) analyzing the practicality of the ABA in the measuring process skills of students in a practicum course Physics II.

## 2. Research Methods

This study uses research and development is the development of devices Activity-based Assessment (ABA) to measure the skills of the students in the practicum courses Physics II which meet the criteria for a valid, practical, and effective. The study design was adapted from a research procedure Sugiyono (2013) which has been modified, namely: analysis of the problem, gathering information, pengemangan design, design validation, analysis and design revisions based validation experts, product testing, analysis and revision of products based on product trials , utility testing, and the final product. The research instruments used to collect the data consist of the validation sheet, preliminary tests, observation sheet activities and questionnaire sheet. Data collection techniques used in this study is the testing techniques, observation, interviews and questionnaires.

Data obtained from the validator analyzed descriptively by examining the results of an assessment of the ABA Device. Validator assessment results are used as inputs to revise / repair device developed by kri¬teria $1.00 < Va \leq 1.75$ (not valid); $1.75 < Va \leq 2.50$ (less valid); $2.50 < Va \leq 3.25$ (quite valid); $3.25 < Va \leq 4.00$ (valid). ABA device can be used at trial if the product has a minimum rating criteria is quite valid.

Before being used on a test user, test instruments ABA validity empirically by using the Pearson product moment.

$$r_{XY} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{\{N\sum X^2 - (\sum X)^2\}\{N\sum Y^2 - (\sum Y)^2\}}}$$

With: $r_{XY}$ = coefficient of correlation between variables X (score by each item / indicator skill process) and Y (the maximum score item / criteria), the two variables are correlated; N = the number of students.

ABA instrument reliability specialized in pre-lab instruments, used Cronbach Alpha reliability coefficient formula, while the instrument reliability lab activities, reports, and presentation of lab results calculated using the formula coefficient of agreement by Fernandes (Arikunto, 2010).

Analysis of the effectiveness of the test by analyzing the final data in the form of practical activity observation instrument values, instrument lab report, and the percentage of lab results. Test the consistency of views on the size of intra-class correlation coefficients (intraclass correlation coefficient, ICC) using SPSS version 21 with the criteria of the $ICC \leq 0.00 \leq 0.20$ (very low), $0.20 < ICC \leq 0.40$ (low ), $0.40 < ICC \leq .60$ (enough), 0.60

<ICC ≤ 0.80 (height), 0.80 <ICC ≤ 1.00 (very high) (Widhiarso, 2010). ABA device is said to be effective if the ICC minimal value in the high category. Determining the level of skills of the students by calculating the average score percentage implementation process skills of students. If the percentage implementation process skills ≥ 70%, then the device is effective in evaluating completeness ABA student activity (White, 2009).

Analysis of the data used is practicality questionnaire analysis and lab assistant lecturer response to the feedback and use of the ABA and analysis of student questionnaire responses to ABA analyzed by calculating the average score. Otherwise practical device if ≥ 80% of respondents gave a positive response to the device developed (Hobri, 2009).

## 3. Results and Discussion

Results of interviews to several lecturers and lab assistant at the three universities, the assessment and assistant lecturer in Physics II lab activities not involving the overall activity of students. Assessment conducted drawn from 10% attendance, 20% pre-test / post-test, 30% yield after lab reports, and 40% response. Based on the results of this interview required a solution that the assessment may measure the skills of the students.

Based on the results of the analysis of the problem, the necessary analysis information gathering and then be followed by the development of product design. The development of products containing the design ABA design appropriate to the characteristics of the course assessment lab to measure the skills of the students in the practicum course Physics II. Software design begins with the development of the syllabus, SAP, lab manual, and components of the ABA. The device of the judgments made at this stage is called a draft I.

The device is in prototype form 1 or draft I validated by the validator 3, to obtain valid devices. The results of the overall assessment by the learning of validator against which developed devices are presented in Table 1, 2, and 3.

Table 1 Results of Validation Tool Contents APA

| No | Aspect of Content validation | validator | | | Average | Criteria | Description |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | | | |
| 1 | suitebility of material content | 3,25 | 3,5 | 3,75 | 3,5 | very good | valid |
| 2 | truth concept | 3 | 3 | 3 | 3 | good | valid enough |
| 3 | truth evaluation tool bsic physics lab activity II | 3 | 4 | 3 | 3,33 | very good | valid |
| 4 | suitability of process skills | 3 | 4 | 4 | 3,66 | very good | valid |
| 5 | truth tool evaluation process skill | 3 | 4 | 3 | 3,33 | very good | valid |
| Average of validation assesment (*va*) | | | | | 3,36 | very good | valid |
| conclussion of assesment validator | | ABA device can be use without revision | | | | | |

Table 2 Results of Construct Validation Tool ABA

| No | Aspect of construct validation | Validator | | | Average | Criteria | Description |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | | | |
| 1 | Completeness of component | 3,25 | 3,25 | 3,75 | 3,4 | Very Good | valid |
| 2 | The language used | 3,25 | 3,25 | 3 | 3,2 | Good | valid enough |
| 3 | graficity component | 3 | 3 | 3 | 3 | Good | valid enough |
| Rata-rata penillaian validator (*va*) | | | | 3,2 | | Good | valid enough |
| Conclusion The overall Validator assesment | | ABA Devicecan be use with little revision | | | | | |

Table 3 Results of Validation Tool Support

| No | Device | validator | | | Average | Criteria | Description |
|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | | | |
| 1 | SAP | 3,80 | 3,67 | 3,67 | 3,71 | Very Good | valid |
| 2 | Practical Handbook | 3,20 | 3,35 | 3,15 | 3,23 | Good | valid enough |

Syllabus and SAP has the characteristics of the development of integrating the indicators to be achieved, namely in the event of a stationary wave lab, mirrors, glass planparalel, lenses, electrical measurements, Ohm's law and induced emf with indicators of process skills. Learning steps includes activity-based activities (lectures on) and also integrates with process skills approach. Practical guide was developed based on indicators of student process skills, equipped with a practicum student activity sheet (LKPM). LKPM contain assignments that directs students explore the skills of the process by critical thinking and analysis to seek and find their own answers to problems that arise in practical activities. The device is presented in five parts ABA holistic (whole), namely: there are guidelines for the use of assessment, assessment instruments activity-based science process skills, interpretation of the guidelines provides the answer key and process skills assessment rubric, and scoring guidelines for qualitative as well as quantitative. Instruments ABA developed included instruments pre lab, instrument activity lab, instrument practical reports, and instruments presentation of the results of the lab, so the assessment refers to the entire student activities both in the activity of pre-practicum, activity lab, activity reports, and activity presentation of the results of lab work to motivate students to be more active in the lab.

Product testing by the respondent 4 (2 physics professor and two assistant practicum) as assessors and 10 students of Physical Education B Clasa in semester 2 test instrument validity ABA uses product moment correlation formula, the validity of the items (for instrument pre-practicum) and validity criterion (for instrument lab activities, lab reports, and presentation of the results of the lab). Recapitulation ABA validity of the instrument are shown in Tables 4 and 5 (for instrument practicum activities, practicum reports, and presentation of the results of

practicum). Recapitulation ABA validity of the instrument are shown in Tables 4 and 5.

Table 4 Recapitulation Value Validity ABA Instruments (Instrument Pra practicum) Trial Products

| Practicum content | Product Moment Correlation Coefficient Values ($r_{xy\ arithmetic}$) Item Problem | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Stationary waves | 0,72 | 0,73 | 0,65 | 0,66 | 0,88 |
| mirror | 0,86 | 0,83 | 0,69 | 0,83 | 0,81 |
| Glass Parallel Plan | 0,71 | 0,70 | 0,66 | 0,70 | 0,75 |
| Lens | 0,83 | 0,74 | 0,72 | 0,79 | 0,80 |
| Electrical measurements | 0,65 | 0,84 | 0,76 | 0,68 | 0,75 |
| Ohm's law | 0,68 | 0,67 | 0,73 | 0,75 | 0,71 |
| Induced Emf | 0,86 | 0,79 | 0,87 | 0,69 | 0,635 |
| $r_{xy\ table}$ | 0,63 | 0,63 | 0,63 | 0,63 | 0,63 |
| Significant level | 5% | 5% | 5% | 5% | 5% |
| Explanation | Valid | Valid | Valid | Valid | Valid |

Table 5 Recapitulation Value Validity ABA Instruments Trial Products

| Practicum Content | Product Moment correlation Coeffisient Values ($r_{xy\ arithmetic}$) Instrument | | |
|---|---|---|---|
| | Practicum Activity | Practicum Report | Presentation of the practicum results |
| Rater 1 & Researcher | 0,96 | 0,91 | 0,99 |
| Rater 2 & Researcher | 0,98 | 0,94 | 0,96 |
| Rater 3 & Researcher | 0,97 | 0,94 | 0,98 |
| Rater 4 & Researcher | 0,96 | 0,88 | 0,98 |
| $r_{xy\ table}$ | 0,95 | 0,87 | 0,95 |
| Significant level | 5% | 5% | 5% |
| Explanation | Valid | Valid | Valid |

From the analysis conducted, as many as seven events practicum, each consisting of five items matter and 32 indicators process skills, have a correlation coefficient value is bigger than the correlation coefficient table with a confidence level of 5%. According Arikunto (2012), coefficient arithmetic is smaller than the coefficient table, the correlation is not valid, and the other way.

Reliability test results of ABA instrument show a fairly high constancy ie> 0.6, so the instrument can be used for measuring the activity of students, especially students of process skills. This is in accordance with the findings Kjellin, et al. (2008), found that the reliability assessment with Activity-based Assessment has a fairly high reliability in assessing a person's activity. The result of ABA reliability in product trials can be seen in Table 6 and 7.

Table 6 Reliability Pre-Practicum Instrument in Test Product

| Practicum Content | Value Reliability Problem ($r_{11}$) | Level of confidence |
|---|---|---|
| Stationary waves | 0,74 | Enough |
| mirror | 0,83 | Hight |
| Glass Parallel Plan | 0,73 | Enough |
| Lens | 0,81 | Hight |
| Electrical measurements | 0,73 | Enough |
| Ohm's law | 0,73 | Enough |
| Induced Emf | 0,80 | Hight |

Table 7 Reliability Inter Rater ABA Instrument Agreement in Product Trial

| Instrumen | Average of Agreement Coefficient Value ($\overline{AC}$) | | criteria |
|---|---|---|---|
| | D.1 & A.2 | D.2 & A.1 | |
| Practicum Activity | 0,81 | 0,84 | Hight |
| Practicum Report | 0,71 | 0,73 | Enough |
| Practicum Presentation | 0,71 | 0,68 | Enough |

Explanation : D.1 is lecturers 1, D.2 is lecturers 2, A.1 is assistant 1, dan A.2 is assistant 2.

The stage of trial usage aims to determine the effectiveness and practicability of the ABA'S device was developed. Respondents of trial usage is 7 persons (3 physics Lecturers , 4 practicum Assistant) as assessors and 20 students of the physical education classes A in semester 2. The effectiveness of ABA device developed as seen from the results of testing with intraclass correlation coefficient (ICC) and the level of student's process skill on courses Basic Physics Practicum II.

Assessment consistenci test of inter 8 rater is done using Intraclass Correlation Coefficients (ICC) gained an average rating of r for the practicum activities instruments is 0,84, practicum reports are 0,88, presentations and practical results are 0,626. According to Norman and Streiner, 2000; Polgar and Thomas, 2000 (in Murti, 2011), the measuring instrument with the value of the ICC between metering > 0,50, indicating measuring instrument has adequate stability and high stability if the ICC between measurement ≥ 0,80 Search ICC values with the SPSS program-21 shows that the activity of the teaching instruments and reports the results of the practicum work have high stability or in the sense of having a high consistency inter 8 rater, so that the instrument is effective.

The consistency that occurs inter 8 rater due assessment using to the set of ABA equipped with rating scale techniques on a1 - 4 interpretation of the guidelines. Instrument rubric developed with rating scale technique is used so that the assessment is more objective. Arikunto (2012) stated that, with the assessment rating scale intended to assessment more objective in assessing a person's appearance. The number of assessors also provide considerable contribution in defining the subjectivity of assessment in the technique rating scale. According to the Uno and Koni (2013) valuation technique rating scale should be done by more than one

evaluator so that minimize the subjectivity factors so that the results more accurate and consistent.

The results of the analysis of the overall student's process skills at each meeting that elaborated on the practicum activity instrument, practicum report instrument, and practicum results presentation instruments, is shown in detail in Figure 1.

Based on Figure 9, explained that the entire meeting process skills of the students were in either category or activity students tend skilled in doing practical work. It is shown from the 11 indicators of process skills are one indicator of the level IV, 9 indicators at level III, and one indicator of the level II. The average percentage of process skills of students is 75.7% or contained within the level III in Table bancmarking process skills. This percentage when compared with the standard of effectiveness by Rase & Papincak (in White, 2009) in the amount of P ≥ 70% (located on level III and IV), then the criteria for the effectiveness of ABA instruments to measure skills students have effective processes. In line with Marithawati Research (2011), the ABA effective as skills assessment process IPA. This is demonstrated by the achievement of process skills of students during the learning process at the level III.

Based on the analysis of each indicator science process skills of students from all meetings that predicts skills are at level II; observing, measuring, calculating, controlling variables, formulate an operational definition, interpret, formulate hypotheses and communicate are at level III; and conducted experiments there at level IV. Pelevelan results show that the student has not sufficiently skilled in conducting predictions and are highly skilled in conducting experiments.

Predictions or expected results can be derived logically from hypotheses and design experiments (Wiyanto, 2008). Even so students still can not describe predictions as expected, it disebaban because students have not been trained to make predictions before doing practical work. Unlike the Skills conduct experiments. In this study, students are highly skilled in conducting experiments. These results are consistent with research conducted by Chabalengula, V.M (2012) reported that student teachers have good experimental skills than other skills. This is because in the physics lab course students are accustomed to doing practical work such as stringing tool or lab experiments.

The results of the analysis of questionnaire responses of students to the ABA gained 83% the percentage of positive responses were entered in both criteria, while for teachers to get the response percentage of 97.1%, which fulfill the criteria very well. Based on the overall results of the study can be summed meet practical criteria. This is in accordance with the opinion of Hobri (2009) which states that the device is said to be practical when 80% or more of respondents gave a positive response to the device developed. According to Van den Akker (1999), practicability refers to the level that users consider the intervention can be used and preferably in a state of 'normal'. Positive responses were given a lecturer and assistant practicum gives the sense that they are quite interested and agree with the assessment tools are developed, it is supported by the opinion of Basic Physics II lab assistant through interviews that the ABA with the characteristics and purpose of the assessment can facilitate the assessment process.

A positive response of students indicate that there is interest and the perceived motivation of students to the ABA developed. This is also reinforced by research Banggali, et al. (2011) states that students become more motivated and prepared to follow the activities of pre lab, lab activities, and report writing assistant practicum for student use activity-based ratings. Motivation can be interpreted as a willingness to issue a high level of effort to meet the needs of self something (Gibson in Uno and Koni, 2013). Motivation emerging cause behavioral changes in students' personality in activity practicum.

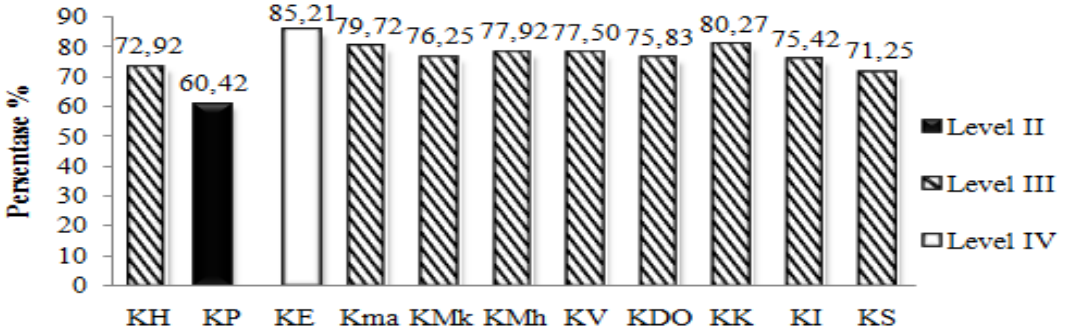
## 4. Conclusion

Characteristics of the APA developed, among other things: (1) syllabus and lesson plans lead to the lectures active approach process skills, (2) guide the lab is equipped with LKPM directing students explore the skills process by way of critical thinking and analysis to find their own answers of the problems arising in practical activities, (3) the ABA presented in the five components of a holistic (whole), namely: guidelines for the use, four instrument-based assessment activities science process skills, guidelines for interpretation, and the guidelines for scoring qualitative as well as quantitative, (4) assessment refers to the entire student activities both in the activity of pre-practicum, activity lab, activity reports, and activity presentation of the results of lab work to motivate students to be more active in the lab, (5) the observation sheet contains several indicators of science process skills base and integration developed as aspects of the assessment of activity of students in the lecture of basic Physics Practicum II.

Set of ABA are categorized valid after the process of content validity and construct validity by

a person skilled / expert in their field and revised. The validity of the ABA earned an average score of good and very good so categorized valid and can be used on course of Basic Physics practicum II. ABA device is said to be reliable if the reliability value> 60. The average value of the reliability of the instrument ie 0.755 ABA, ABA instrument developed thus said to be reliable and have a fairly high level of confidence as a measuring tool.

Assessment practicum activity with ABA declared effective because it meets three effective indicators, namely: (1) the consistency of assessment by the assessor to the instrument 8 ABA had ICC values of between 0.626 to 0.938 or exceed the standards in the category consistency so consistently very high; (2) an increase in the skills of the students at each meeting, and the average percentage of skills at all meetings at the level III; (3) the average value of the final practicum of Basic Physics II with the ABA beyond the completeness practicum (NOA). The result of the development of practical devices are categorized based on the average of the positive responses and lab assistant lecturers in evaluating student activities and in response to the feasibility of developing an excellent ABA category and the average percentage of positive responses of students categorized either in the application of ABA.




Explanation :
KH : Formulated Hipoteting Skills
KP : Predicting Skills
KE : Experiment Skills
Kma : Observing Skills
KMk : Measuring Skill
KMh : Counting Skills
KV : Control Variable Skills
KDO : Defining Variables operational Skills
KK : Communicating Skills
KI : Interpreting Skills
KS : Summing Skills

Figure 1 Diagram of the Student's Process Skill Level Throughout the Meeting

**Acknowledgments**

The Author very grateful to our respondents, students of Tanjungpura University (UNTAN) Pontianak for their cooperation in conducting the study. Author also indebted to Mr. Sunyoto Eko Nugroho and Mr. Sulhadi in State University Of Semarang for guadiance the researcher to finish this research. The Author also very thankful to our family for their undying support.

**References**

1. Arikunto, S. 2010. *Prosedur penelitian Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta.
2. Arikunto, S. 2012. *Dasar-dasar Evaluasi Pendidikan Edisi 2*. Jakarta: Bumi Aksara.
3. Banggali, T., Masri, M., dan Tanrere, M. 2011. "Pengembangan Perangkat Alat Evaluasi Berbasis Aktivitas untuk Meningkatkan Keterampilan Proses dalam Praktikum Kimia Dasar". *Jurnal Chemica*, 12(2): 77-84.
4. Carin, A. A. 1993. *Teaching Science Through Discovery*. New York: Macmillan Publishing Company.
5. Chabalengula, V. M. 2012. "How Pre-Service Teachers' Understand and Perform Science Process Skill". *Eurasia Journal of Mathematics, Science & Technology Education*, 2012, 8(3), 167-176.
6. Hobri. 2009. *Metode Penelitian dan Pengembangan (Deveopmental Research)*.

http://hobri.blog.ujec.co.id.pdf (diunduh 30 Desember 2013).
7. Kjellin, L., Cizinsky, S. R., & Eklund, M. 2008. "Activity-based assessment (BIA)—inter-rater reliability and staff experiences". *Scandinavian Journal of Occupational Therapy*, 15(2): 75-81.
8. Marithawati, Y. D. 2011. "Pengembangan Perangkat Penilaian Berbasis Aktivitas (Activity-based Assessment) Sebagai Asesmen Keterampilan Proses Ipa Siswa SMP pada Materi Keaneka Ragaman Makhluk Hidup". *Tesis*. Semarang: Program Pascasarjana Unnes.
9. Murti, B. 2011. *Validitas dan Reliabilitas Pengukuran*. http://fk.uns.ac.id/index.php/download/file/61.pdf. (diunduh 12 Februari 2014).
10. Rezba, R. J. 2007. *Learning and Assessing Science Process Skills*. USA: Hunt Publishing Company.
11. Rustaman, N. Y. 1995. "Peranan Praktikum dalam Pembelajaran Biologi". *Makalah*. Bahan Pelatihan Bagi Teknisi dan Laboran Perguruan tinggi. Bandung: FPMIPA IKIP.
12. Semiawan. 1992. *Pendekatan Keterampilan Proses Bagaiman Mengaktifkan Siswa dalam Belajar*. Jakarta: PT. Grasindo.
13. Sugiyono. 2013. *Metode Penelitian Kuntitatif Kualitatif dan R&D*. Bandung: Alfabeta.
14. Uno, B. H. & Koni, S. 2012. *Assessment Pembelajaran*. Jakarta: Bumi Aksara.
15. Van den Akker, J. 1999. "Principles and Methods of Development Research". Dalam Jan van den Akker *et al* (ed.). *Design approaches and tools in education and training*. Dordrecht, the Neterlands: Kluwer Academic Publisher. Hal 1-14.
16. White, E. 2009. "Student Perspectives of Peer Assessment for Learning in A Public Speaking Course". *Asian EFL Journal*, 33(1): 1-31.
17. Widhiarso, W. 2010. *Mengestimasi Reabililitas*. Yogyakarta: Fakultas Psikologi UGM.
18. Wiyanto. 2008. *Menyiapkan Guru Sains Mengembangkan Kompetensi Laboratorium*. Semarang: Universitas Negeri Semarang Press.

# AN ANALYSIS OF LECTURER TALK AND STUDENT TALK IN TEACHING ENGLISH FOR YOUNG LEARNERS (EYL)

ANDI IDAYANI
*English Department, Islamic University of Riau, Jl. KH. Nasution Pekanbaru , Sumatra Island, Indonesia*

SRI YULIANI
*English Department, Islamic University of Riau, Jl. KH. Nasution Pekanbaru , Sumatra Island, Indonesia*

Abstract

This research presents the investigation on 1) the lecturer roles in classroom interaction, 2) types of lecturer talk, and 3) types of student talk. Employing a qualitative research design and case study approach, the data for this study were collected in a classroom context where the participants were an English lecturer for young learners and her 15 students in one private primary school in Pekanbaru in the form of observation and interview. The results indicated that all of the lecturer talks were revealed covering giving direction, lecturing, asking questions, using student's ideas, praising, criticizing student's behavior and accepting feelings. However, giving direction and lecturing were found as the most frequently used categories among all. In addition, the lecturer mostly adopted a role as controller in the classroom as she frequently led the flow of interaction. In terms of student talk, student's response and initiation were revealed in this study. It is also found that student's initiation plays a significant part in the classroom interaction.

Keywords: Classroom interaction, student talk, lecturer talk, young learners.

## 1. Introduction

Lecturers of English in many countries are now being trained to give more attention to the development of speaking skills in their learners, in part to compensate for earlier excessive preoccupations with reading and writing and in part because the spoken language is seen as such a vital tool in modern communication. Lecturers, supported by many recent and current textbooks, have been encouraged to foster speaking through techniques such as role play, project work and dialogue practice, and to vary practice and interaction patterns in the classroom by making extensive use of pair work and group work as well as whole class sessions.

Students are required to practice the language in the classroom as possible as they could. Behnam and Pouriran (2009) claim that educational institutions would prefer students practice English language than students who did not practice the language in classroom. It means that the more they practiced, the more they had skill and self- confident in using the language. In fact, the purpose of teaching and learning the language is for communication. It is true that the educational institution really appreciate at the students who practice the language. However, asking students to practice the language is important for them.

Based on the issues above, the study aims to investigate the practice of English for Young Learner (EYL) verbal classroom interaction of a lecturer and students in a private primary school in Pekanbaru. It mainly aims to describe characteristics of lecturer talk; and student talk categories. It also aims at investigating lecturer's role and its implication on student's motivation.

## 2. Literature Review

### 2.1. *Lecturer and Students Talk*

Lecturer talk is particularly important to language teaching (Cook, 2000:144). According to pedagogical theory, the language that lecturers use in classrooms determines to a larger degree whether a class will succeed or not. Lecturers pass on knowledge and skills, organize teaching activities and help students practice through lecturer talk. In English classrooms, lecturers' language is not only the object of the course, but also the medium to achieve the teaching objective. Both the organization of the classroom and the goal of teaching are achieved through lecturer talk.

Studies of lecturer talk can be divided into two types of language. One is the investigation of language that lecturers use in their language classrooms, and the other is the investigation of language that they use in subject matter lessons. Gaise (1977, 1990) found that lecturers' utterances were simpler on a range of

measures of syntactic complexity when they addressed students than when they were talking among themselves. Tudor (1993) emphasizes the lecturer's role in the learner-centered classroom. He insists that the lecturer's role should be reconsidered in the recent trend of learner-centered teaching and the basic issues in the classroom. Ellis (2003) makes a list of classroom environments depending on the types of participants, and compares them with natural setting. Fotos (1998) observes that the instruction pattern of a class shifts the focus from form to form in the EYL classroom.

### 2.2. *Flanders' Interaction Analysis Categories System (FIACS)*

EFL classroom interaction is appropriate by using Flanders' Interaction Analysis Categories System (FIACS). Flander technique is appropriate for analyzing the students' and lecturer's talk at EFL context since the technique is to measure how much the lecturer and students take talking during teaching and learning process. In fact, both EFL lecturers and students are required to talk in the classroom. Besides that, Flander divides lecturer talk (accepts feelings, praises or encourages, accepts or uses ideas of students, asks questions, lectures, gives direction, and criticizes or uses authority), students talk (response and initiation), and silence (period of silence or confusion).

FIACS provides ten categories to classify classroom verbal interaction including into three groups, namely, lecturer, students talk, and silence or confusion. These categories will be put into columns of observational sheet to preserve the original sequence of events after the researcher do plotting the coded data firstly. Flanders' interaction Analysis is for identifying, classifying, and observing classroom verbal interaction. It means that Flanders' interaction Analysis help the researcher to identify classroom interaction during teaching and learning process in classifying the interaction into the lecturer talk, students talk, and silence.

Table 1. FIAC Category System (Adapted from Flanders, 1970, cited in Richards, 2003)

| FIAC Category System | | |
|---|---|---|
| Lecturer Talk | Direct Influence | 1.Accepts Feeling |
| | | 2.Praises or Encourages |
| | | 3.Accepts or uses ideas of students |
| | | 4.Asks questions |
| | Indirect Influence | 5.Lecturing |
| | | 6.Giving Directions |
| | | 7.Criticizing or justifying authority |
| Student Talk | | 8.Response |
| | | 9.Initiation |
| Silence or Confusion | | |

## 3. Method

The study employed qualitative research design and case study approach in order to describe, investigate, and explore the real situation that happens in classroom when teaching grammar, reading and writing are conducted. Meanwhile, in gathering the data, the researcher uses classroom observations and interviews.

The analysis of the data begins with the process of organizing data from observation and interview, transcribing data into paper-based transcriptions, coding the data, reporting the findings, interpreting the findings, and validating the accuracy of the finding in discussion (Creswell, 2008: 244). The study also employs some verbal classroom frameworks from Flanders' Interaction Analysis Categories (FIAC).

## 4. Discussion

Three parts can be observed in the English classroom activities: the lecturer roles in classroom interaction;

Table 2. Summary Result of Classroom Interaction

| Observation | Lecturer talk (TT) | | Student Talk ( | |
|---|---|---|---|---|
| | Freq | (%) | Freq | |
| Obs 1 | 258 | 52,44% | 129 | |
| Obs 2 | 220 | 60% | 95 | |
| Average | 239 | 56,22% | 112 | |

lecturer talk, and student talk.

From the data above, the whole picture of classroom interaction reveals lecturer talk as the most dominant aspect compared to student talk and silence. It is valuable in providing chance for students to be active in interaction in a classroom as Pinter (2006) suggests that quantity of opportunities for students to interact in classroom is crucial in learning language. The explanation of student talk is going to be elaborated in further section.

As revealed from the data, all of lecturer talk categories in FIAC system are found throughout the study. The patterns of the data are broken down into two tables according to indirect and direct influences. Indirect influence consists of accepting feelings, praising, using student's ideas and asking questions.

Table 3 Percentages of Indirect Influence of Lecturer talk Categories (%)

| Obs\ Cat | 1 | 2 | Average |
|---|---|---|---|
| Accepting Feelings (C1) | 0,56 | 1,23 | 0,89 |
| Praising (C2) | 7,22 | 8,59 | 7,90 |
| Using Ss' ideas (C3) | 6,94 | 9,41 | 16,35 |
| Asking questions (C4) | 8,06 | 5,32 | 6,69 |

As can be seen from table 3, accepting feelings (C1) occurred in this study as the least category of lecturer talk. It takes extreme percentage compared to the other categories which means that the lecturer seldom clarified and accepted student's feelings and attitude in teaching learning processes. Secondly, praising and encouraging students (C2) occurred in more times that are frequent rather than accepting feelings category. The lecturer praised the students when they were giving relevant responses and performances. Thirdly, using or accepting student's ideas (C3) appeared in higher amount than accepting feelings but lower than using student's ideas

The next three categories of lecturer talk are lecturing, giving directions and criticizing which are involved in direct influence. The description of the result will be presented on table 4.

Table 4 Percentages of Direct Influence of Lecturer talk Categories (%)

| Obs\ Cat | 1 | 2 | Average |
|---|---|---|---|
| Lecturing (C5) | 6,11 | 26,08 | 16,09 |
| Giving Directions (C6) | 28,61 | 19,14 | 23,87 |
| Criticizing (C7) | 4,72 | 2,75 | 3,73 |

In contrast to table 3, direct influence of lecturer talk exists in more significant percentages than the indirect one. Dominant types in each meeting are giving direction (C6) and lecturing (C5). These variations were affected by the way the lecturer led the students to accomplish the learning task, i.e. the model of teaching that the lecturer adopted. In regard with the last category of lecturer talk, criticizing occurs in persistent number which is always less than five percent in each of observation. Criticizing happened when the lecturer critized and corrected the student's unacceptable performance and behavior. Criticizing was found in lower percentage than praising which means the lecturer gave positive feedback more than negative feedback to the students.

Regarding direct and indirect categories of lecturer talk, it is clear that the lecturer employed direct teaching more rather than indirect one. The direct influence relies on academic reasons, which affect to more formal classroom atmosphere (Moon, 2000). However, young learner's classroom requires different kind of treatment in which young learner's lecturers need to build more intimate and informal relationship with the children. In addition, Brown (2000) asserts that interactive teaching is closely concerned on indirect teaching.

In addition to classroom atmosphere and relationship with the students, direct teaching also gave impact on the role of the lecturer as controller rather than tutor (Brown, 2000). This can be seen from the fact that the lecturer led the students more to do the tasks and explained materials than accepted student's feelings, praised the student's performance, used student's ideas and asked questions.

Table 5 Percentages of Student Talk Categories (%)

| Obs\ Cat | 1 | 2 | Average |
|---|---|---|---|
| Response (C8) | 7,21 | 15,04 | 11,12 |
| Initiation (C9) | 17,15 | 11,18 | 14,16 |

In table 5, it is evident that student talk takes less significant proportion out of total classroom interaction. The percentage of student talk is in line with what has been found by Tsui (1995) that student talk accounts for less than 30 percent in "lecturer-fronted classrooms". However, as the lecturer posed many display questions, the students were motivated to respond to them during discussing the students' building knowledge, reading their writing task in front of the other students.

Apart from the dominance of lecturer talk, the lecturer's questions and meaningful contexts have implication to student's motivation which was high in classroom interaction. Harmer (2003) also states that good characteristics of learners are those who

have willingness to experiment the language and ask questions in interacting with lecturer. Moreover, the student's speaking skill is good enough to actively interact in classroom which is shown by the use of English fully in interaction.

## 5. Conclusion

There are several points to be conducted in this study. Firsts, in line with the realization of verbal classroom interaction, there are several categories that are mostly used by the lecturer and students during speaking activity. Second, in terms with the categories that are mostly used by the lecturer. It is also found that some categories of lecturer talk, beginning from the highest percentage to the lowest one: giving directions, lecturing, asking questions, using or accepting ideas of students, praising, criticizing and accepting feelings. Regarding the student talk, this study has shown two types of student talk covering responses and initiation. Many display questions posed by the lecturer have motivated the students to give responses. In terms with the categories that are mostly used by the lecturer, it can be concluded that the teacher's roles are as manager, director, facilitator, and controller.

The suggestion is offered for EYL lecturers and further research. It is advisable for EYL lecturers to talk in careful consideration to which their talk can support and invite student talk as much as possible, for example by applying questioning strategies which are meaningful to children' lives and characteristics. Further, they may want to make sure that they use target language as much as possible.

## References


1. Brown, H. D. Principles of Language Learning and Teaching (3rd Edition). Beijing: Foreign Language Teaching and Research Press. (2000).
2. Creswell. Educational Research: Planning, Conducting, Evaluating Quantitative and Qualitative Research, Third Edition. New Jersey: Pearson Education International. (2008).
3. Cook, V. 2000. Second Language Learning and Language Teaching (2nd Edition). Beijing: Foreign Language Teaching and Research Press. (2000)
4. Ellis, N. C. Constructions, chunkings, and connectionism: The emergence of second language structure. In C. Doughty, & M. H. Long (Eds.), (2003). The handbook of second language acquisition (pp.104-129). Oxford: Blackwell. (1990).
5. Fotos, S. Shifting the focus from forms to form in the EFL classroom. ELT Journal, 52(4), 301-307 (1998).
6. Gaies, S. M. The nature of linguistic input in formal second language learning: Linguistic and communicative strategies in teachers' classroom language. In H. D. Brown, C. A. Yorio, & R. Crymes (Eds.), On TESOL '77. Teaching and Learning English as a second Language: Trends in research and Practice. Washington, D.C.: TESOL. (1977).
7. Moon, Jane. Children Learning English. Oxford: Macmillan. (2000).
8. Pinter, Anamaria. Teaching Young Language Learners. Oxford: Oxford University Press (2006).
9. Richards, Keith. Qualitative Inquiry in TESOL. Aston University: MacMillan. (2003).
10. Tsui, A.B.M. Introducing Classroom Interaction. London: Penguin. (1995).
11. Tudor, I. Teacher roles in the learner-centered classroom. ELT Journal, 47(1), 22-31. (1993).

# THE EFFECT OF USING INDONESIAN FOLKTALES TO IMPROVE STUDENTS' VOCABULARY MASTERY FOR ADOLESCENT LEARNERS

AUTHOR
LIA AGUSTINA
*Educational Research and Evaluation, Yogyakarta State University, Kampus Karangmalang, Yogyakarta, DIY Province, Indonesia*

**Abstract**

This study is focused on the media used in teaching vocabulary to adolescent learners at SMP Muhammadiyah 1 Sleman. It employed an experimental research study. The data are obtained from the outcome of preliminary study and the test given after the treatment. The subjects were the second graders at SMP Muhammadiyah 1 Sleman on the academic year of 2013/2014. The findings of the study present that there is a significant difference between the students' vocabulary mastery taught using Indonesian folktales and those taught without Indonesian folktales.
Key words: vocabulary, Indonesian folktales, vocabulary mastery

## 1. Introduction

Language plays an important role in our life. In English learning, there are four skills and also three language components of learning English - that is; vocabulary, pronunciation, and grammar - that should be mastered by the students. The four skills and the three language components have a balance rule in learning English. Swan and Walter in Thornbury (2002:14) state that vocabulary acquisition is the largest and most important task facing the language learners. Vocabulary becomes the basic in learning English because it can help the people's understanding about the English information. According to Thornbury (2002: 1), all languages have words. Language emerges first as words, both historically and in term of the way each of us learned our first and any subsequent languages. So, we have to master the words first because we can't say anything without any words or vocabularies.

Learning English vocabulary through story is essential for the students because stories could help the students and it could be more fun. The story is an ideal introduction to the foreign language as they present language in a familiar and memorable context. Using story especially Indonesian folktale allows the teacher to introduce or revise new vocabulary and sentence structures by exposing the children to language in varied, memorable and familiar contexts, which will enrich their thinking. The researcher formulates the problems into the following questions:

1. How is the students' mastery of vocabulary taught by using Indonesian folktales?
2. How is the students' mastery of vocabulary taught without using Indonesian folktales?
3. Are there any significant differences in the vocabulary mastery between the students who taught using Indonesian folktales and those taught without Indonesian folktales?

Therefore, the researcher wants to conduct a research to know the effect of Indonesian folktales in improving vocabulary of second graders of SMP Muhammadiyah 1 Sleman. Based on the research problem, the purpose of this study is to find out whether there is a significant difference between students' vocabulary mastery taught using Indonesian folktales and those taught without Indonesian folktales of the second graders of SMP Muhammadiyah 1 Sleman.

## 2. Literature Review

This part presents some supporting theories as a basic understanding of doing this research. The discussion will be presented below.

### *2.1 Adolescent learners*

#### *2.1.1. The definition of adolescent learner*

Learners are often described as children, young learners, adolescents, young adults or adults. Adolescents are often uncertain, since the onset of adolescence is bound up with physical and emotional changes rather than chronological age. However, this term tends to refer to students from the age about 12 to 17. (Harmer, 2009:14)

Adolescents are perhaps the most interesting students to teach, but they can also present the teacher with more problems than any other age group. The teacher should never, then, forget that adolescents need to be seen in a good light by their peers and that with the changes taking place at that age they are

easily prone to humiliation if the teacher is careless with criticism. But adolescents also can be highly intelligent if stimulated, and dedicated if involved. At this age, getting the level of challenge right is vital. Where this level is to low the students may simply 'switch off': where it is too high they may become discouraged and de-motivated. It is the teacher's task, too, to put language teaching into an interesting context for the students. More than anything else they have to be involved in the task and eager to accomplish it. (Harmer, 1991:7-8)

*2.1.2. The characteristics of adolescence*

Adolescents also have common characteristics. There are some common characteristics of adolescent learners, those are:

1) Adolescent learners have great curiosity and a wide range of interests. Their understanding of the world is constantly evolving. They begin to see patterns in what they once saw as isolated events.
2) Their understanding of themselves is tentative and constantly changing. They are highly self-conscious and can be very sensitive to personal criticism.
3) They have a great deal of physical energy. Some find it hard to sit still or work on one activity for long periods.
4) They are curious about adults and observe adult behavior and conversations. They look for models. They have high standards for adult competence and consistency.
5) They need to understand the purpose of activities, policies, and processes. Their growing autonomy may express itself in questioning authority.
6) They enjoy humor.
7) They want to be liked and to belong to peer groups. Peer acceptance is often more important than adult approval. Adolescents frequently express peer identification through slang, musical choices, clothing, and behavior.
8) They are sensitive to personal or systemic injustice. They are often idealistic and impatient with the realities that make social change slow or difficult.
9) They want their autonomy and emerging independence to be respected. (http://www.edu.gov.mb.ca/k12/cur/ela/docs/learner1-s1.html)

***2.2. Vocabulary***

*2.2.1 The definition of vocabulary*

According to Richards (2001:4) vocabulary is one of the obvious components of language. Vocabulary is central to the language (Heinle & Heinle, 2001:285). Based on the explanation above, vocabulary is one of the important components of language, when the teachers want to teach new language to their students, they have to teach vocabulary first, understand the vocabulary more, so it will make the students learn easily the language skills, such as speaking, writing, and reading. According to Richard and Renandya (2002: 255) vocabulary is a core component of language proficiency and provides much of the basic for how well learners speak, listen, read and write.

*2.2.2. The importance of vocabulary*

Vocabulary is one element of the language that should be learnt and taught. It will be hard to master the language without mastering or understanding a certain number of vocabularies. Vocabulary is the first step to be taught before teaching other aspects of language.

Wilkins (1972: 111) in Thornbury (2002:13) says that without grammar very little can be conveyed; without vocabulary nothing can be conveyed. It has to be realized that the students' ability to read, write, listen, and speak is conditioned by their vocabulary. In reading ability, vocabulary helps learners in comprehending the text. In writing, it helps them to expand their ideas based on the

topic sentence that they want. In listening, it helps learners comprehend and understand what other person speaks. In speaking ability, vocabulary facilitates the learners to explain their ideas orally. Coady and Huckin (1997:5) argue that vocabulary is the central and critical importance to typical language learners. It makes vocabulary becomes the basic element to master the four language skills, namely listening, speaking, reading, and writing. Without having adequate vocabulary, a language learner will not be able to master the language skills. It shows that vocabulary mastery has important roles in communication.

*2.2.3. Vocabulary mastery*

The selection of words which are to be taught to the students is a very important procedure in language learning process. However it doesn't mean that the students will master and be fluent in expressing themselves in English upon learning that list. What students need to know regarding vocabulary is the meaning, the word use, the word formation, and the word grammar (Harmer, 1991: 156-158).

When conveying the meaning to the students, teachers should teach their students that a word may have more than one meaning when used in different contexts. For example, the word "book" has at least twelve different meanings when used in contexts. One may say "I booked my ticket three days ago"; another "I booked him for speeding" and so on. Teachers should make the teaching learning vocabulary process clear and easy for their students when conveying any meaning, otherwise the students may feel bored and become fed up with learning vocabulary.

The meaning of words can be communicated in many different ways. Teachers should involve their students in discovering the words' meanings by themselves and let them make efforts to understand words' meanings. When the students are involved in discovering meaning, they will never forget those meanings and they will be able to express themselves fluently. When a single word has various meanings, the teacher should decide which meanings are to be taught first. Furthermore, students should be familiar with the words' meanings when words are used in metaphors and idioms.

Moreover, word grammar is one of the most important parts that students should be taught carefully. Teachers should give the students the opportunity to be exposed to grammatical patterns and to practice them frequently.

*2.2.4. Teaching vocabulary*

Teaching vocabulary is not just conveying the meaning to the students and asking them to learn those words by heart. If teachers believe that the words are worth explaining and learning, then it is important that they should do this efficiently. Teachers should use different media and activities in teaching English vocabulary to motivate the learners, enrich their vocabulary and enable them to speak English properly.

Teaching vocabulary is crucial because it should be taught with its spelling, meaning, and pronunciation. According to Suyanto (2007: 47), children learn words faster if supported by media, such as pictures or real things. So the teacher can give the word in the context. For example, teacher shows a picture of glass that contains water. If the teachers only mention the glass and water, the students do not know the meaning, because it is better to be given in the context, such as *"It is a glass of water, I need a glass of water, I drink a glass of water"*.

### *2.3. Indonesian folktale*

An Indonesian folktale is a traditional story that has been passed on by word of mouth – told from parent to child over many generations or passed on by countless storytellers sitting around countless evening fires. No one knows who the original author was, and there are usually different versions of the same story.

According to Taylor (2000: 134), folktales provide a particularly good source of material for several reasons.

a. Folktales are short enough that students can finish them in a limited amount of time.
b. Sequences of related readings appear to result in greater language gains than several unrelated readings. Because there are many folktales in the same traditions, students

encounter related material and variety at the same time.

c. There are a variety of degrees of difficulty and contextual support to accommodate different levels of students. There are also many kinds of stories to accommodate different tastes.

d. Many students find folktales very interesting. This gives folktales a potentially high intrinsic motivation level.

Indonesian folktales have frequent repetition that allows certain items to be acquired while others are being overtly reinforced. Many stories contain natural repetition of key vocabularies and structures. This helps students to remember every detail, so they can gradually learn to anticipate what is about to happen next in the story. Repetition also encourages participation in the narrative.

According to Taylor (2001: 16-17), folktales from students' own culture can improve their attitudes toward language learning, which appear to help them learn more effectively. Kristen Oscarsson (1992) reported extremely positive responses when she used Haitian folktales with Haitian immigrant children. They were surprised and impressed that she knew stories from their culture. This sparked a great deal of interest, which resulted in measurable increases in both the quality and the quantity of language they produce. It means that prior knowledge is important and influence in teaching and learning process. Folktales from students' own culture are also important thing to increase the students' motivation, interest, and positive attitudes in teaching and learning because folktales are fairly short.

## 3. Method

This research is an experimental research study. Selinger and Shohamy (1989: 136-137) say that the experimental research is concerned with studying in the effects of specified and controlled treatments given to subjects usually formed in groups. This research uses intact group design which involves a group of students who belong to experimental group and the students who belong to the control group. This research uses two groups i.e. experimental group (a group of students who were taught by using folktales) and a control group (a group of students who were taught without using folktales).

The subject of this research was the second grade students of SMP Muhammadiyah 1 Sleman Yogyakarta. The first group is as the experimental group and the second as the control group. On this study, class of VIII B was selected as the experimental group and class of VIII C was selected as the control group. This sample selection was suggested by the teacher.

In collecting the data, the researcher used a test. The test in this research was employed to know the students mastery of vocabulary before they get the treatment and after they get the treatment. The result of the test was measured to find out the differences between control group and experimental group.

Data analyzing technique involves two parts: there were descriptive analysis and inferential analysis. Descriptive analysis is aimed at presenting the teaching and learning variable of the English test, the descriptive analysis used to describe sample of the data and to describe the different aspect of the data which include the mean, standard deviation, and categorization. The inferential analysis focused on answering the questions if there were significant differences. The inferential analysis used in this study is normality test, homogeneity test, and hypothesis testing.

## 4. Discussion

The data were analyzed as quantitative data. Based on the data of the pre-test and post-test, it is found that the data is normal and homogenous. The data is normal because the value of the *p* in the pre-test of experiment group is higher than the constancy (0.852>0.05), and then, in post-test of experiment group, the value of the *p* is also higher than the constancy (0.531>0.05). The population is homogenous because the value of the *p* in the pre-test and post-test of both of two groups are higher than the constancy (>0.05).The value of the *p* in the pre-test of experiment group is 0.061 and in the post-test is 0.076. The value of the *p* in the pre-test of control group is 0.065 and in the post-test is 0.316. Therefore, the hypothesis was accepted because the value of the *p* of post-test in experimental class is 0.000. It means that *p* is lower than the constancy (<0.05), it is also supported by the result of t-observed of post-test is 3.940 with $t_t$is 1.671. So the t-observed is higher than $t_t$ ($t_o$>$t_t$). It can be concluded that the result of the post-test shows a significant difference in the vocabulary mastery between the experimental group and control group.

Teaching English vocabulary through Indonesian folktales is effective, it can be seen from the mean score of both of those groups. The

students' vocabulary mastery taught using Indonesian folktales belongs to the *good* category because the mean score is 17.9032, so it includes in the categorization scale of good category (14,85-< 18,15). While the students' vocabulary mastery taught without using Indonesian folktales belongs to the *good* category because the mean score is 14.9667, so it includes in the categorization scale of good category (14,85-< 18,15). And then, the mean score of the post-test in experimental group is 17.9032 while the mean score of the post-test in control group is 14.9667. It means that there is a significant difference between the two groups as seen at the scale of mean score, the mean score of experimental class is higher than control class (17.9032 > 14.9667). Although the mean score of the two groups are categorized as good category if we compare the post-test mean score of the experimental and control classes, we can see that the scale of the mean score shows a very significant difference.

Regarding to the data described above, it can be summarized that the mean score between the experimental and control classes is significantly different. It can be concluded that using Indonesian folktales is more effective to teach vocabulary than without Indonesian folktales. This test answers the hypothesis of the researcher that "There is a significant difference between the English vocabulary mastery of the students who are taught using Indonesian folktales and those taught without using Indonesian folktales to the second grade students of SMP Muhammadiyah 1 Sleman Yogyakarta".

## 5. Conclusion

Teaching vocabulary using Indonesian folktales gives positive achievement, as showed by the increase of mean score of the test. Based on the result of the pre test and post test, it is shown that the pre test mean score is 10.6129 and the post test is 17.9032. It can be concluded that the students who belong to the experimental class get significant improvements. The description shows that there is a significant increases of students' vocabulary scores between the score of the pre test and the post test in the experimental group.

Teaching vocabulary without Indonesian folktales does not give significant improvement, it can be seen from the mean score of the pre test is 13.0333 and the post test is 14.9667. It means that there is not a very significant increases in the mean score of the students' vocabulary mastery between the pre test and the post test in the control group.

Teaching new English vocabulary using Indonesian folktales is more effective than those taught without using Indonesian folktales, because the mean score of the pre test and the post test increases significantly from 10.6129 to 17.9032. It also supported by the value of t-observed ($t_0$) of the post test is 3.940 with the $p$=0.000. It means that $p$ is lower than probability of $p$ (<0.05), so the t-observed is significant. Therefore, the hypothesis which reads "there is a significant difference in English vocabulary mastery between the students taught using Indonesian folktales and those taught without using Indonesian folktales to the second graders of SMP Muhammadiyah 1 Sleman Yogyakarta" was accepted.

## 6. References


1. Coady, J. and Thomas, H. 1997. *Second Language Vocabulary Acquisition: A Rational for Pedagogy*. USA: Cambridge University Press.
2. Harmer. Jeremy. 1991. *The Practice of English Language Teaching (New Edition)*. London and New York: Longman.
3. _____. 2009. *How to Teach English: New Edition*. England: Pearson Education Limited.
4. Heinle&Heinle.Thompson Learning. 2005. *Teaching English as A Second or Foreign Language*.Boston: Heilne&Heline, Inc.
5. Richard, Jack. C. 2001. *Curriculum Development in Language Teaching*. Edinburgh: Cambridge University Press.
6. Richard, Jack, C. and Renandya, W. A. 2002.*Methodology in Language Teaching: An Anthology of Current Practice*. USA. Cambridge University Press.
7. Sellinger, H.W. and Sahomy, E. 1989.*Second Edition.Language Research Method.* New York: Oxford University Press.
8. Suyanto, Kasihani, K.E. 2007.*English for Young Learners*. Jakarta: BumiAksara.
9. Taylor, Eric. K. 2000. *Using Folktales*. Cambridge: Cambridge University Press.
10. Thornbury, Scott. 2002. *How to Teach Vocabulary*. England: Pearson Education Limited.

***Electronic Source:***

http://www.edu.gov.mb.ca/k12/cur/ela/docs/learner1-s1.html

# AN ANALYSIS OF COMPETENCE IN PROFESSIONALISME AMONG TEACHERS OF SENIOR HIGH SCHOOLS IN PEKANBARU

Dr.Nurmalinda,S.Kar,M.Pd
*Islamic University of Riau, Pekanbaru, Indonesia*

Marhamah,M.Ed
*Islamic University of Riau, Pekanbaru, Indonesia*

**ABSTRACT**

This study aimed to explore the components in the profesional competence of the Teachers at Senior High School in Pekanbaru based on seven components, compusing: i) content knowledge, (ii) pedagogical content knowledge, (iii) curriculum knowledge, (iv) knowledge of learners and its characteristic), (v) general pedagogical knowledge (vi) knowledge of educational aims and values philosophy (vii) knowledge of educational contexts. In addition, based on pedagogical inferences, this model can be applied in the teaching and learning process in the teacher room. This model has six levels: i) comprehension, ii) transformation, iii) teaching, iv) evaluation, v) reflection and vi) new comprehension. This study employed qualitative method design in which the design has become the main design via the case study method. The researcher used the interview, non-participative observation and document analysis techniques to collect the data. There are eight teachers involved as the subjects of this study. Nvivo software version 7.0 was used to analyze the data by coding the identified themes. Subsequently, the identified themes were analyzed using Cohen Kappa technique of data analysis. The themes and sub-themes found were then submitted to three experts in order to find the agreement value. As a result, the experts agreed on the value of 0.8. The result of this study shows that the teachers gear up towards upgrading their professionalism competency. The result also shows the knowledge in ICT is the knowledge that completes the professionalism competency among eight teachers in teaching process. Hopefully, the result and finding of this study would help the school in identifying the strength as well as weaknesses of its teachers in their teaching professionalism competency which is closely related to the quality of teaching and learning process Senior High School Pekanbaru.

Keywords : Teacher Competence, pedagogy, Content Knowledge

## INTRODUCTION

Professionalism competence concerns globally teachers because teachers have roles and duties not only to provide information science and technology, but also shaping the attitude and spirit that can survive in the era of globalization. Professionalism task of the teacher is to help students to be able to do limited adaptation of various challenges of life and a growing insistence in him. Educating the students which include aspects of personality, especially the aspect of intellectual, social, emotional, and skills.

In the process of education, the role of teachers practice in teaching and learning in the classroom has changed. With respect, teachers must complete themselves with the knowledge and skills in accordance with contemporary demands. The Ministry of Education of Indonesia has outlined the duties and responsibilities of teachers to achieve insights 2020. Teachers have a significant role in the awakening of human resources. Incarnated intellectual quality of mastery of knowledge will lead superior and competitive individuals.

This is consistent with the statement of the law number 14 of 2005 article 1, paragraph 2, which states that the status of teachers as professionals serves to enhance the dignity and role of teachers as agents of learning , development of science , technology and the arts as well services to the public (Law No14 2005 ) . In addition , teachers also play a role to develop the potential of students in order to become a man of faith and fear of God Almighty , noble, healthy , knowledgeable capable , creative, independent , and become citizens of a democratic and responsibility.

In Law No. 20 of 2003 on the national education system, article 39 paragraph 2 also states that, “teachers are the professionals in charge of designing and implementing the learning process, assessing


ISBN: 978-602-74576-0-7

learning, coaching and training, and conduct research and services to the public, especially for educators teaching high -level institutions "In Article 58 paragraph 1 states that "evaluation of student learning is done by the teacher to monitor the process and the improvement of student learning results continuously (Law No. 20 of 2003).

Hamilton ( 2000) argues that in the 21st century challenges that will be faced by the education sector is as globalization due to the advancement of information communication technology ( ICT ) , students' backgrounds , training discipline , participation in the community , boarding , teaching approaches creative and dilemmas assortment students . Besides Hamilton (2000) also states that the challenges of teaching in Indonesia is like professionalism competence is still low, the little professor and finance is still lacking. Another challenge that will be faced by institutions is mutually related to high recitals by students as the primary customer is the wiser. Students are now more capable of assessing the quality of teachers, while the teachers are also expected to provide services qualified through their teaching (Hamilton 2000).

The process of globalization and the development of ICT have made the teaching profession increasingly complex and challenging. Study after study has proven that the quality of teachers with teaching and learning that memorable is the most important factor to predict educational achievement of students (Ferguson 1998). Assumption is supported by a study has suggested a significant correlation between the perceptions of teacher behavior limited to students' achievement (Kozma, Belle and Williams, 1978, in Jacob, 2002, H.2).

According to Suryadi (1995), one of the most important factors affecting the quality of education is the teacher. Qualified teachers can be measured by five main factors, namely : (i ) professional ability , ( ii ) business professionalism , ( iii ) the suitability of time devoted to activities profession , ( iv ) the suitability of skills with his work , and ( v ) adequate welfare , Due to limited the increase profession competence of teachers is the most important business in enhancing the quality of education .

In the opinion of Tilaar (1999), teachers in the 21st century must master a lot of knowledge (academic, pedagogical, social and cultural), capable of critical thinking of change and are able to solve the problem. To become a professional, the teacher did not come to school to teach the course. To produce a memorable teaching and learning needed teachers who have a variety of professional competence. According to Shulman (1987 ) there are seven types of knowledge that must be owned by teachers , namely : (i ) knowledge of the content of the subject , ( ii ) knowledge of pedagogy , and ( iii ) knowledge of students, ( iv ) knowledge in the context of education (knowledge of educational contexts ) , ( v ) knowledge of curriculum , ( vi ) knowledge of the purpose , values and history of philosophy of education (knowledge of educational aims values, philosophy and history ) and ( vii ) knowledge of pedagogy am (general pedagogical knowledge) . The seventh component is integrated to produce a memorable teaching and learning

Through pedagogy are created by Shulman (1986, 1987, 1992), can be translated during the process of teaching and learning in the classroom. This model has six levels , namely : i) understanding , ii ) transformation , iii ) teaching , iv ) assessment, v ) reflection and vi ) a new understanding . The results of the six levels would produce a memorable teaching and learning will be achieved.

This study aims to review the components contained within the competence professionalism teachers at SMAN 8 in the municipality of Pekanbaru , Riau Province based on the seven types of basic knowledge professionalism that suggested by Shulman (1987 ) . It also aims to explain how the basic components of the teacher's knowledge is translated into pedagogy and the teachers actions during teaching and learning in the classroom is comprised of level i) understanding , ii ) transformation , iii ) act of teaching , iv ) assessment, v ) reflection and vi ) new understanding.

## LITERATURE REVIEW

### *The concept of Competence*

According to the Dictionary of the Board, the notion of competence that is efficiently, decent, abilities, ability, able to perform tasks flawlessly (Kamus Dewan 2002). According to *Longman Dictionary of Contemporary English* (1995),"*competence"* is *`the ability and a skill to do what is needed, special area of knowledge, skill needed to do a particular job*.

In the national standard of education , elucidation of Article 28 paragraph ( 3 ) item c raised that is the professional competence is the ability to master the content is broad and deep content that allows guiding students to meet the standard of competence specified in the national standard of education .


ISBN: 978-602-74576-0-7

Director General of Basic and Secondary Education (2003) explains that "the competence defined as knowledge, skills, and values are reflected in the habit of thinking and acting. Competence is defined as the combined aspects of knowledge , skills and characteristics of personal and treatment of which need to be owned and practiced for implementing any work or department ( Siti Rahaya et al ., 2005 ) .

Competence is the combined effort, knowledge and experience that allow people to do something perfectly (Boyatzis & Kolb 1995). Competence categorized as cognitive, should be studied (Hackett 2001) and is the attribution behavior (Kearns 2001). Eggen and Kauchak (1996) have a clearer view of the competencies. They argue that first competence is the cognitive operations that have a specific set of procedures that can be known for sure. Secondly it can be demonstrated in various state and party he established through practice. According to Malek and Liew (2002), competence refers to the knowledge, skills and personal traits or personality. The concept of competence becomes a major support in the formation of k -workers where workers need to have skills in critical thinking and creative problem solving , proficiency controlling edict , communication skills , group work skills , proficiency apply technology , autonomous learning skills and proficiency to understand the culture . (Mohd Yusop 2003).

According to Hackett (2001 ) , competence has four principles namely : (i ) competence is shaped insert and output by the situation ( situational ) and personal , ( ii ) competence is restricted to the perception and the characteristics of the individual , ( iii ) achievement of competence requires a diversity of learning styles ( iv ) the competence is a form of motivation .

Boyatzis and Kolb (1995) give a broader definition of the value to the individual competence. He characterizes his competence as an individual property. Competence is someone's effort in showing a stacking system and set the related behavior is a function in achieving achievement. Words finesse which is often referred to as competence is a group of related knowledge attitudes and skills that influence one's work , linked to job performance and can be measured with a particular expert . According to Perry (1980), expert negotiator institute proficiency, competence can be enhanced and established through the development and training programs.

According to Armstrong and Baron (2000), an individual's competence skill is something that should be seen. He can be detected through exposure of an individual's behavior when doing job perfectly and reached the stage of achievement. The concept of competence is only make sense if it were applicable workplace behavior can be seen clearly and memorable. According to this concept , there are three types of essential competencies namely : (i ) the competence of the terrace (core competency) , ( ii ) professional competence ( professional competency) , ( iii ) competence function (functional competency) .

According to competence awoken by Spencer and Spencer (1993), knowledge and skills may always be acquired through training courses and be associated with academic eligibility. Construction of a person's personal traits educators is more challenging and distinctive emphasis should be given to achieve the expected triumph through training and development. For this model, the competence of an iceberg in which the knowledge and proficiency is located in the tip of the iceberg and the water is above face. When personal traits are located under water and difficult face known.

The principle of the principle of a competency model is that individual achievement educators will increase if only he has the necessary competence to perform the duties and responsibilities of agency bears.

In line with this, the three components of competence are as follows: i) Knowledge is the ability of educators improve knowledge in the quest to improve performance themselves with memorable, ii) proficiency is a skill educators use you and take advantage of (ability to use in practice), iii) personal traits are personal value and the carrying -value (personal attributes and behaviors) that need to be understood and practiced by an educator.

Furthermore, Rainsbury et al. (2000), the concept of individual competence is formed out of three components namely the characteristics of the individual, achievement and task accomplishment context.

***Pedagogical Model of Knowledge Content (PPK)***

Teachers'pedagogical knowledge content (PPK) is one component of the knowledge base of teachers and the concept was initially backed by Shulman (1986).Shulman (1986) has developed a new framework for teacher education by introducing the concept of pedagogical content knowledge (KDP). KDP were initially reserved by Shulman (1986) has been developed together with the other movement in the project ` Shulman (1986) says that (KDP) is a combination of science content and pedagogy.

PPK is one kind of knowledge that is unique to a person of the teacher, and it is based on the way the teacher associate pedagogical knowledge (knowledge


ISBN: 978-602-74576-0-7

about how to teach) possessed the knowledge of the content (what needs to be taught). The integration of both types of knowledge produces pedagogical content knowledge. KDP is one out of seven basic knowledge needs to be owned by someone educators (Shulman 1987). Seven basic knowledge are: (i ) content pedagogy, ( iii ) curriculum , ( iv ) pedagogical content , ( v the students and the characteristics of students , ( vi ) educational contexts , ( vii ) educational goals .

***Pedagogy and Master Model Measures during Teaching***

Knowledge of pedagogy according to Shulman (1987), stresses to understanding of transformation and reflection of teachers. Concept of pedagogy and the action is centered by Shulman, selfish thinking as the basis of intellect teachers to teach in which the basic knowledge that teachers have nurtured. The ultimate goal is to produce teachers who are able to support themselves and communicate well with the teaching has understanding teacher basic knowledge they have and be able to translate the thoughts of teachers to teach with memorable.

According to Livingston & Broko (1992 ) , pedagogy and the teacher's behavior is important in categorizing teaching as cognitive skills are complex and it is a process to customize ( transform) knowledge of the content in the form of a more robust in terms of pedagogy and easily adapted with a collection of students to produce teaching that debuted ( Shulman 1987) .

The process of thinking pedagogy of teachers is important in understanding whether the form of basic knowledge possessed by teachers to teach someone. Model pedagogical and actions of this teacher is an established model for explaining the process of complex cognitive skills in the category of teaching teachers (Livingston & Broko 1992). He included several different ways to “know “which is important for teachers and teaching needed to prevail. Pedagogy of Shulman (1987) is the process of customizing the knowledge of the subject material in the form of pedagogy is impressive and can be adapted to a wide range of student abilities and backgrounds of students.

**METHODOLOGY**

This study used a qualitative approach shaped case study (Merriam 1998; Miles & Huberman 1994; Patton 1990; Yin 1994). For data collecting, presenting, using interviews, observation of "non - participant observation” and analysis of documents. Study data were analyzed using analysis themed based advanced by Patton (1990) and Miles & Huberman (1994) with the help of software NVivo version 7.0.

In this study, the reviewer selects teachers who teach in SMAN 8 Pekanbaru. School election is based on the objective assessment that is the reviewer would like to see the practice of professional competence of teachers in the process of teaching and learning, and to obtain information through the retrieval protocol gabble , non-participant observation and inquired about . This is in accordance with what is stated by Spradley (1980), Taylor and Bogdan (1984) and Marshall and Rosman (1995) that in order to implement something of the investigation, investigators have their own reasons. They back up the four main criteria in choosing a study that is ( i ) there is a situation that is rich in the process , the respondent , interactions and structures of interest in the assessment locations are selected, ( ii ) the location is easy to enter , ( iii ) credibility and quality of the data is assured , ( iv ) the close relationship between the reviewer and study participants may be intertwined .

In the assessment study using a qualitative approach, as busy as eight samples of study chosen aims (purposive sampling) rather than population. These teachers comprised of school teachers who teach in the 2014/2015 assessment session, which had to agree in person and as well as interested to be involved in this study and have received permission from the Dean of the School. This election is expected to meet the criteria of “sample aim” or purposive sampling in the case study something (Merriam 1998; Burns 2000; Creswell 1998; Strauss & Corbin 1990).

Participants study was interviewed comprised of eight teachers (six women and two men). All of them are permanent teachers in the school. Eight of them have to have a law degree. As adhere to ethical review and secret and protect the identities of the participants of the study (Cohen 1989).

The process of data collection was conducted between February and November 2015. (Spradley 1980: Taylor & Bogdan 1984: Merriam 1998) .This technique uses would be complementary to each other in which a deficiency or lack of clarity of the citations of data observation techniques will be asked to the respondents through retrieval techniques gab and instead of quoting the data both of these techniques will also be supported by a document analysis techniques . Third, technique data collection will be made triangulation to obtain the validity of the study. According to Wiersma (2000), triangulation is the validity (Cross -validation) for qualitative assessment.


ISBN: 978-602-74576-0-7

Analyzing data using qualitative comparative analysis of technique quest involves a combination of data collection with analysis. Through this technique, collecting and analyzing the data running simultaneously. For example, after the investigators running the meeting gabble, the data obtained will be analyzed and was followed by a coaching pattern than the data (Bryman 2001.

## DISCUSSION

### Competency Based Teacher Professionalism based on seven components of Knowledge Teacher Professionalism in SMAN 8 Pekanbaru, Riau Province

***a. Knowledge Content***

The study on the knowledge content of eight teachers on professional competence of teachers was conducted through interviews with them in-depth and non-participant observation. This study has been known for sure the content is based on the knowledge component of their own perspective. Through observation and analysis of interviews of eight participants of the study of the components of the content knowledge can be divided to three components namely (i) the deepening of content, (ii) enrichment of content, (iii) knowledge of KTSP.

In the first component that is deepening the contents of the womb , interviews and non-participant observation as a whole found the teacher strives to deliver teaching smoothly and orderly , the question is raised of students can be satisfactorily answered, explained in brief.

The second component that is enriching the contents of the womb, interviews and non-participant observation as a whole found to be teachers attempt to, have the competency enrichment of teaching materials of reference material, trying to correlate with science wider and have literature that many,

The third component, that is, knowledge of curriculum are based on competence , interviews and non-participant observation as a whole found the teacher seeks to trying to emphasize curriculum of KTSP in learning , motivating students to have the competence , (i) Emphasis on achievement of competencies students, results-oriented learning.

This study also shows that knowledge of the KTSP curriculum for any teacher is able to illustrate that students who have participated in learning to master the concepts of knowledge and be able to analyze the purpose of using knowledge and skills gained in the faculty after attending various content knowledge.

***b. Pedagogical knowledge***

Study of the pedagogical knowledge of eight teachers has been done through observation and inventiveness gab with them in depth. The study reported a pedagogical knowledge is based on their own perspective. Through the analysis of non-participant observation and inventiveness gab reviewer found the components of pedagogical knowledge can be divided into two namely: (i) designing components of teaching, (ii) components implement the teaching process.

In the first component that is planning instruction results interviews and non-participant observation was found eight teachers indicated by practicing planning of teaching by using various teaching technique based on the background of students, trying to understand the theories of learning , mastering the principles of curriculum development based on competence , in implementation of teaching by example , questions and tattoo relevant , and assisted by the use of ICT in teaching , mastering various developments and issues in the education system.

The second component that is the implementation of the teaching result interviews and non-participant observation was found eight teachers indicated with the practice of planning teaching basic skills teaching , applying techniques and method teaching in accordance with the characteristics of students and teaching purposes , utilizing various media and learning resources in teaching , carrying out the process of teaching a productive , creative , active , effective and enjoyable , managing the process of teaching , conduct meaningful interactions with students, provide assistance as appropriate individual learning students.

**c. *Knowledge of Student***

The study on the knowledge of students from eight teachers has been done through observation and inventiveness gab with them in depth. This study found that knowledge of students is based on their own perspective. Through the analysis of non-participant observation and inventiveness gab reviewer to find the components of the knowledge of students which include aspects relating to recognize students in depth, mastering various learning approach in accordance with the characteristics of students, to identify baseline characteristics and background of students, applying techniques and method teaching in


ISBN: 978-602-74576-0-7

accordance with the characteristics of students and teaching purposes.

***d. Knowledge of Curriculum***

Based on the results of the study done by the interview result and non-participant observation shows that eight teachers showed confidence and attempt to practice the knowledge component of the curriculum which covers aspects relating to (i ) curriculum objectives , ( ii ) curriculum materials , ( iii ) the organization of curriculum , ( iv ) curriculum evaluation .

In the first component that is the purpose of curriculum, interviews and non-participant observation as a whole found the teacher seeks to understand the goals of the national curriculum, to understand the objectives of the curriculum under the laws of the national education system and the outline of the bow to understand the purpose curriculum based institutional objectives.

In the second component that is curriculum material, interviews and non-participant observation as a whole found the teacher seeks to understand the material of the curriculum, formulate all possible learning activities to achieve the goal, set of learning resources that need to be taken, to formulate the content of the teaching material and content.

In the third component, namely the organization of curriculum, interviews and non-participant observation as a whole found the teacher seeks to understand the vision and mission of the national and local curriculum, in compiling curriculum organization includes cognitive, affective and psychomotor.

Meanwhile, the fourth component interviews and non-participant observation as a whole found the teacher seeks to understand the curriculum evaluation, formulating test standards will be used to assess the implementation or otherwise of interest, determine the type of evaluation is needed.

***e. Knowledge about the Context of Education***

Based on the results of the interviews and observation showed that eight teachers showed confidence and attempt to have knowledge of the components of educational contexts that include aspects relating to (i) knowledge of authority, (ii) knowledge about the culture of the faculty.

In the first component that is knowledgeable about authority, interviews and non-participant observation as a whole found to be teachers strive to have a sense of responsibility, ability to work together in the organization, fostering the climate of schooling is impressive; understand the vision and mission of the organization faculty. In the second component that is, knowledge of the culture faculty, interviews and non-participant observation as a whole found the teacher seeks to have the ability to interact with environments, the ability of mutual respect for cultural values , social sensitivity, have educated communication.

***f. Knowledge of Public Pedagogy***

Based on the results of the interviews and observation showed that eight teachers showed confidence and effort to have a knowledge of the components of pedagogy am covering aspects relating to (i ) designing special teaching field , ( ii ) specialized in the teaching field .

In the first component that is planning the teaching of specialized fields, the results of acquired study has been interviewed and non-participant observation was found eight teachers indicated with the practice of planning teaching specialized field by using various techniques teaching based on the background of students.

The second component that is the implementation of the teaching of specialized fields, the results of the interviews and non-participant observation was found - eight teachers indicated with the practice of planning the teaching of specialized fields with basic skills teaching.

***g. Knowledge Objectives and Values Philosophy of Education***

Based on the results of the interviews and observation show that eight teachers showed confidence and effort to have knowledge of the components of interest and values of philosophy of education that includes aspects related to. (I) the purpose of education and ii) the value of education.

The first component that is to understand the purpose of education , the results of the interviews and non-participant observation was found - eight teachers indicated by practicing understand the goals of national education under the laws of the national education system numbers 2 1989 and the preamble of the legislation in 1945 .

.

**Pedagogy for Teaching and Action Master at this level of understanding, Transformation, Action Teaching, Assessment, Reflection and new understanding.**

*a.* ***Comprehension Level***


ISBN: 978-602-74576-0-7

This study shows that the components on the ratings of understanding include: (i ) the purpose of teaching the instructional objectives general ( TIU ) and specific instructional objectives ( ICT ) , ( ii ) understanding about matters of structure the content to be taught , ( iii ) k understanding womb , iv ) understanding enrichment of content , ( v ) . Understanding against with students present in the classroom.

In the first component that is the purpose of teaching, interviews and non-participant observation as a whole found the teacher seeks to understand the purpose of teaching in accordance with the content in depth. In the second component that is the structure of content, interviews and non-participant observation as a whole. In the third component that understands contents of the content, interviews and non-participant observation as a whole found the teacher seeks to understand the content in depth suitable for teaching.

In a fourth component that is enriching the contents, interviews and non-participant observation as a whole found the teacher sought to have enrichment of teaching materials, teachers try deal with science more broadly, have the ability to understand the value, meaning and the use of science.

In component fifth- namely enrichment of contents of the content , interviews and non-participant observation as a whole found the teacher seeks to understand the distinction of students present in the chamber to college , get to know students in depth , motivate students, promote interaction with students, mastering various learning approach in accordance with the characteristics of students.

### b. *Rank of Transformation*

Studies showed that the components of rank transformation include: (i ) supply teachers , ( ii ) representation idea, ( iii ) the election of teaching technique , ( iv ) adaptation to the characteristics of students, ( v ) tailoring " adaptation to the students special ,

In the first component that is preparation for teaching, interviews and non-participant observation as a whole found to be teachers strive to make preparations in accordance with the characteristics of students. In the second component that is representative idea, interviews and non-participant observation as a whole found the teacher strives to present the idea / content of teaching to students. In the third component, namely the selection of teaching technique, interviews and non-participant observation as a whole found the teacher attempted to use any of various teaching approaches such as contextual, constructive, cooperative learning, in the teaching process.

In a fourth component that is adaptation to the characteristics of students, interviews and non-participant observation as a whole found the teacher seeks to adaptation and adjustment by the characteristics of students the process of conveying the contents, looking at the characteristics of learners such as phase learners , language , gender , student motivation , selecting teaching materials are selected by the characteristics of students who are in the booth lectures, guiding students in need.

In the fifth component that is an adaptation to the special student , interviews and non-participant observation as a whole found the teacher strives to attempt an adaptation specialized instruction to students .

### c. *Rank of Teaching Action*

The study on the teaching of eight action rank - eight teachers have been done through observation and inventiveness gab with them in depth. The study reported a pedagogical knowledge is based on their own perspective. Through the analysis of non-participant can be divided into namely: (i) designing components of teaching, (ii) component in the teaching.

In the first component that is planning instruction results study was interviewed and non-participant observation was found eight teachers indicated by practicing planning of teaching and using various teaching technique based on the background of students, trying to understand the theories of teaching , mastering the principles of curriculum development based on competence.

The second component that is the implementation of the teaching result interviews and non-participant observation was found eight teachers indicated with the practice of planning teaching basic skills teaching, applying techniques and method learning in accordance with the characteristics of students and teaching purposes.

### d. *Rating of Assessment*

Studies show that the components on the rating assessment include: (i) controls the standards and result indicators in accordance with the teaching of the subject teaching purposes, (ii) to master the principles, strategies and teaching assessment procedures. (Iii) Developing various assessment instruments the


ISBN: 978-602-74576-0-7

process and results of teaching. (IV) Assessing the process and results of teaching in the quest, (v) to reflect on the teaching process in the quest. , (VI) reflects on the learning results of students. , (Vii) analyze the results of the assessment of the teaching and reflection of the teaching process. , (viii) follow up on the assessment results to improve the quality of teaching.

### *e. Rank of Reflection*

Studies were obtained showed that the components on reflection ranking include: (i ) the original bush , ( ii ) its original formation , ( iii ) the original action , ( iv ) critically analyze their own teaching .

The results of the study interviews with eighty-eight teachers stated that the ratings reflection is important because to allow teachers to be positive against the practice in finding the strengths and weaknesses of the teaching process is carried out and it lines with the stated Kim (1993), which states this attitude is actually trying to improve the professionalism of teachers.

### *f. New understanding of Rating*

Studies showed that the components of the new understanding of rankings include: (i) new understanding about her own teaching, (ii) new understanding of material / subject is taught and (iii) new understanding about students.

## CONCLUSION

Knowledge of the content indicated by the teacher in the understanding of the facts or concepts on the content of the courses is taught. They are able to develop concepts that are taught properly and smoothly. Besides knowledge of the content found through various sources such as : i ) the primary text , ii ) reference books , iii ) a webpage , iii ) asking movement , iv ) re- examined.

Knowledge of pedagogy, teachers strive to deliver content knowledge in an effective way and also teachers strive towards generating a high reach to the development of their students.

Knowledge of the purpose and values of educational philosophy, indicated by a high understanding of the objectives of education will affect the teachers themselves to more actively promote education in accordance with the objectives indicated by the state.

The results of acquired six ratings on pedagogical process are as follows:

a. Ranked of understanding, on the ratings understanding, indicated by the teacher with a high understanding of the purpose of teaching in specific instructional objectives (TIU)

B. rating teaching action, indicated by the teacher with a high understanding of the action is in conformity designing and memorable in the delivery of teaching something.

d. Ranked assessment , indicated by the teacher with a high understanding of a judgment that is, the ability to evaluate and reflect on the processes and results of learning by using tools and assessment processes are valid and reliable, based on the principles, strategies , and assessment procedures are correct , and refers to teaching purposes.

e. Ranked reflection , teachers try to give to the practice of reflection of which should be implementing a reflection that seeks to make judgments in this quest as a step improve themselves Teacher professionalism demonstrated impartiality , sure , dedication and so the duties.

f. The new understanding, teachers try to understand something about the result rather than observation to the top of their student teaching as well against which they have done.

## REFERENCES

Berliner, D.C. 1995. Teacher Expertise in Anderson, L. (1995) *International Encyclopedia of Teaching and Teacher Education: Second Edition, Oxford:* Elsevier Science.

Bogdan, Robert C. & Biklen, Sari Knopp, 1982. *Qualitative Research for Education: An Introduction to Theory and Methods, Boston: Allyn and Bacon, Inc.*

Borg, W.R. dan Gall, M.D., 1983. *Educational Research (4th Edition).*Longman, New York.

Boyatzis, R.E., McBer and Campany. 1982. The Competent Manager: A model For Effective Performance. New York: A Wiley –Interscience Publication Jhon Wiley &Son.

Boyatzis, R.E. & Kolb, D.A. 1995. From Learning Styles to Learning Skills: the executive skill profile. *Journal of Managerial Psychology*, **10** (5): 3-17.


ISBN: 978-602-74576-0-7

Bredeson,P.Y. 2001. Negotiated Learning: Union Contracts and Teacher Profesial *Development. Education Policy Aanalysis Archives*, Vol.9, No.26, pp 349-373.

Bruner, J. (1996). *Toward a Theory of Instruction. Cambridge, MA: Harvard University Press.*

Cochran, K.F.1991. Pedagogical Content Knowledge: A Tentative Model for teacher preparation (atas talian)http://www.eduref.org/(5 Oktober 2000).

Cochran, K.F.,deRuiter, JA.1993. Pedagogical Content Knowing: An integrative model for teacher preparation. *Journal of Teacher Education* **44:**263-271.

Cohen, L. & Manion, L. 1989. *Research Methods in Education.* Ed.ke-3. London: Routledge.

Cowie, H. (1992). *Survey of student perceptions of enterprise*. Evaluation practice in the enterprise for higher education initiative. United Kingdom: University of Bristol: 7-8

Creswell, J.W.1994. *Research design: Qualitative & Quantitave Approaches.* Thousand Oaks: Sage Publication.

Creswell, J.W.1998. *Qualitative inquiry and research design: Choosing among five Traditions.* Thousand Oaks: sage Publication.

Crowson, R.L. 1987.Qualitatif research methods in higher education. Dlm .Smart, J.C. (pnyt). *Higher education: Handbook of theory and research*, Hal 155 Volume III. New York: Agathon Press Inc.

Denzin, N.K. &Lincoln, Y.S. 1994. Introduction: Entering the field of qualitative research. Dlm Denzin, N.K. &Lincoln Y.S. (pnyt). *Handbook of qualitative research,* hlm. 1-18. Thousand Oaks: SAGE Publication

Flanders, T.1980. *The Profesial Development of Teachers. Vancouver:* British Columbia Teaches Federation.

Fletcher, B. & Payne R. 2000. Levels of reported stressors and strain among school teacher: some UK data. *Educational Review* **64**:267-278.

Gibbons-Wood, D. & Lange T. 2000. Developing core skills-lesson from Germany and Sweden. *Education *Training **42**(1): 24-32**.**

Glaser, B. & Strauus, A.L. 1967. The discovery of grounded theory: Strategies for qualitative research Chicago: Aldine.

Glesne, C. & Peskhin, A. 1992. *Becoming qualitative researchers: An introduction*. New York: Longman.

Grossman, P.L. 1989. A study in contrast: Sources of pedagogical content Knowledge for secondary English. *Journal of Teacher education* **40** (5):2431.

Grossman, P., Wilson, S.M. & Shulman, L.S. 1989. Teacher of substance: Subject Matter knowledge for teaching. Dlm. Reynolds, M.C (pnyt).*Knowledge base for beginning teaching.* New York: Pergamon.

Grossman, P.L.1990. *The making of a teacher: Teacher knowledge and teacher education.* NewYork: Teacher College Press.

Grossman, P.2003. Teaching: Prom a Nation at Risk to a Profession at Risk? Harvard Education Letter.

Guba, E. G. & Lincoln, Y.S. 1981. *Effective evaluation.* San Francisco: Jossey-Bass.

Hackett, S.2001. Educating for competency and reflective practice: Fostering a conjoint approach in education and training. *Journal of Workplace learning* **13** (3):103-112**.**

Hamilton. K.2000. The academic year (future of higher education). Black issues in Higher Education.Sept.14.http://www.findarticles.com.

James Pohan dan Eva L.Baker. 2003. *Teknik Mengajar Secara Sistematis.* Jakarta: Rineka Cipta.

Journal PAT. 2001. Teacher in England and Wales. Professionalisme in Practice: the PAT


ISBN: 978-602-74576-0-7

Journal.April/Mei2001.(Online)(http://members.aol.com/PTRFWEB/journal1040.html, diakses 7 Juni 2001)

Kerlinger, F.N.1986. *Foundation of behavioral research.* New York: Holt, Rinehart.

Klemp, G.O., Jr.1980. *The assessment of occupational competence.* (Ed). Report to the National Institute of Education, Washington, DC.

Kuehn, L. 2002. Teachers' profesialime under attack. *Teacher Newsmagazine* **14: (6).**

Lieberman, M. 1965. Education As A Profession Dalam Schools, Society, and Profesial Education. New York: Holt-In chart and Winston

Lilia Halim & Abdullah Mohd. Nor. 1998. Pengetahuan kandungan (Pedagogical Content Knowledge Pck) Dan Perananya Dalam"Memsiswai Cara Mengajar". Seminar ke-12 Pendidikan Guru Untuk Sekolah Berkesan. Kuala Lumpur:Fakulti Pendidikan Universitas Malaya , 26-28 Oktober.

Lincoln, Y.S. & Guba, E. G. 1985. *Naturalistic inquiry*. Newbury Park, California: Sage Publication

Maister, DH. 1994. *True Profesialisme.* New York: The Free Press.

Maister, DH. 1997. True Professionalism. New York: The Free Press.

Marshall, C & Rossman, G.B.1995. Designing qualitative. Edke-2. Thousands Oaks: SAGE Publications.

Merriam, S.B. 1998. *Qualitative research and case study applications in education.* California: Jossey Bass Publishers.

Milles, MB. & Huberman, A.M. 1994. *Qualitative data analysis: A sourcebook of new methods.* Ed ke-2 Thousands Oaks, CA: Sage.

Mohd. Majid Konting. 1990. *Kaedah penelitian pendidikan.* Kuala Lumpur: Longman.

Morse, J. M.1994. Desingning funded qualitative research. Dalm Denzin, N.K. & Lincoln, Y. S. (pnyt). *Hanbook of qualitative research,* hlm.220-235 Thousand Oaks: SAGE Publications.

Moon & Mayes, A.S. (Eds). *Teaching and learning in the secondary school. Ms.125-33.London: Routledge in association with the Open University.*

Neuman, W.L.2000. *Social research methods: qualitative and quantitative approaches.* Ed.Ke-4. Boston: Allyn and Bacon.

Newman, W.L. (2000). *Social Research Methods: Qualitative and Quantitative Approaches.* Edisi ke 4. NewYork:Alyn and Bacon.

Noeng Muhadjir .1996. *Metodologi Penelitian Kualitatif.* Yogyakarta:Rake Serasin. NRC. 1996. Standar for Professional Development for Teacher Sains. Hlm. 59-70

Oglesby, C. 2003. *Teacher: Low Pay, Low Morale, High Turnover*. Camble News Network, LP, LLLP.

Olssen, M. &K.M. Matthews (eds). 1997. *Education Policy in New Zealand: The 1990s and Beyond.* Palmerton North: Dunmore Press.

Patton, M.Q.1990. *Qualitative evaluation and research methods*. Ed. Ke-2. Newbury Park, California: Sage Publications.

Perry, P .1980. Profesial Development: The Inspectorate in England and Wales
Dlm. Megarry, E. (Ed) Professional Development of Teacher. *World Year Book of Education.* London: Kogan Press.

Pratte Richard & L.J.Rury.1993. Teachers, professionalism, and craft. *Teachers College Record 93* **(1).** Columbia University.

Requirements in the third millennium: business students and graduates~ perspectives on the desirable competencies, Dlm. L. Finch. (pnyt). *Proceedings of the second annual conference of the New Zealand association for cooperative education, New Zealand Association for cooperative education,* hlm.52-68.

Rainsbury E.,Burchell, N.&Hodges, D.2000. Work Raka JoniT. (l977), *PermbaharauanProfesialTenagaKependidikan: Permasalahan dan Kemungkinan Pendekatan*, Jakarta, Depdikbud.

Schon, Donald. 1983. *The Reflective Practitioner: How Professionals Think in Actions.* New York: Basic Books.

Semana, A. 1994. *Profesialisme Keguruan*.


ISBN: 978-602-74576-0-7

Yogyakarta: Kanisus.

Sechrest, L. & Sidani, S.1995. Quantitative and qualitative methods: is an alternative? *Evaluation and program Planning*. 18 No.1:77-87.

Shulman, L.S. 1986. Those who understand: Knowledge growth in teaching. *Educational*

Shulman, L.S.1987. Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review* **57:**1-22.

Shulman, L.S. &Grossman, P.L.1987. Final report to the Spencer Foundation (Technical Report of the Knowledge Growth in a Professional Research Project) Stanford, CA: School of Education, Stanford University.

Shulman, L. 1992. Ways of seeing, ways of knowing, ways of teaching, always about learning about teaching. Journal of Curriculum Studies, **28:93:390**.

Shulman, S Lee. 1993. Teaching as community property: putting an end to pedagogical solitude. *Change* **25(6)**:6-7.

Shulman, L.S. 1996. The comparative psychology of school subjects. Dlm. Berliner & Calfee (pnyt). *Handbook o Educational Psychology* hlm.399422. San Diego: Academic Press.

Singh.K.B. & Bilingsley.B.S 1998. Profession support and its effects on teacher commitment. *The Journal of Education Research* 91:229-239**.**

Soetjipto & Kosasi , Raflis. 2002. *Profesi Keguruan.* Jakarta: Reneka Cipta.

Stake, R.E. 1995. *The art of case Study research*. Thousand Oaks, CA: Sage.

Straus, A., & Cobin, J.1990. Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park, CA: Sage.

Sparks, Dennis .1999. What Teacher Know and Don't Know Matters. Harvard Education Letter. Research Online

Spencer, L.M. & Spencer, S.M. 1993. Competence at work. Model for superior Performance. New York: J.Wiley &Son

Spradley, J.P. 1980. *Participant observation.* New York: Holt, Rinehart & Winston.

Sprinthall,N & Sprinthall, L. 1980. Adult Development and Leadership Training For Mainstream Education. Dlm. Corrigan, D. &Howey, K. (Pnyt) *Concepts to Guide the Training of Teacher.* Reston, Virginia: Council Of Exceptional Children, hal.356-374.

Sockett Hugh. 1993. *Moral Base for Teacher Profesialsm.* New York: Teacher College Press

Stake, R.1995. *The art of case study research.* Thousands Oaks, CA: Sage.

Stiles, K.E. dan Loucks-Horsley, S. 1998. Professional Development Strategies: Professional Learning Experiences Help Teachers Meet the Standards. The Science Teacher. September 1998. hlm. 46-49).

Syaiful Sagala. 2006. *Konsep dan Makna pembelajaran*.Alfabeta : Bandung

Taylor, S.J. & Bogdan, R.1984. *Introduction to qualitative research method.* Ed. Ke-2. New York:Wiley.

Tien, C, Ven, J. & Chou, S.2003. Using the problem-based learning to enhance students' key competencies. The Journal of American academy of Business, Cambridge.

Undang-Undang no 14 Tahun 2005, tentang Guru dan Guru sebagai Tenaga Profesi.

Usman, M.U. 2004. Menjadi Guru Profesional. Bandung: Remaja Rosdkarya UNDP. 2004. Human Development Report 2004 (Cultural Liberty In Today`s Diverse Word). New York: Published for United Nations Development Program (UNDP).

UndangUndang Sistem Pendidikan Nasional 2003.

Yin, R.K. 1994. *Case study research: desigh and metods.* Ed. Ke-2. Thousand Oaks, California:Sage Publications

Zais, R.S. (1976) *Curriculum: Principles and Foundation.* New York Harper &Row Published


ISBN: 978-602-74576-0-7

# PROFESSIONAL COMPETENCE DEVELOPMENT ACHIEVEMENTS IN THE FIELD OF BASIC SCIENCE IN PRIMARY SCHOOL THROUGH PROBLEM BASED INTEGRATED SCIENCE LEARNING MODEL

**By**

**Yanti Fitria**

Elementary School Teacher Education Programs
Padang State University

Sciences (natural science) an important play role in solving the problems of sustainability of human life. Science is incorporated in the disciplines of chemistry, biology, physics, and astronomy/terrestrial. This is known as an integrated science, because it is among the disciplines of science will each contribute one another towards the development pattern of human life in the handling problems dayli context. Weak control of teaching integrated science by elementary teachers will be impact to against a weak way of thinking, profesional attitude, and skills in teaching science to elementary school students. Practically of problem based integrated science learning model can be used as an educational innovation in the development program of professional competence of prospective primary school teachers . The study descriptive to investigate ready achievment the professional competence of pre-sercice teachers with the use of problem-based integrated science lectures. In the studies have involved as many as 80 participants consisting of pre-service teachers as much as 35 and 45 in-service teachers who have teaching experience of more than 5 years. Data was collected using questionnaires to explore the professional competence of future teachers and elementary school teachers in the Padang city. The result shows achievment professional competence of preservice teacher who have undergone teaching problem based integrated science have better than elementary school teachers who have long experience teaching in elementary school but have not received problem-based learning system .

**Keywords**: Professional competence, integrated science, problem-based learning, pre-service and in-service teachers

## INTRODUCTION

Professional development of teachers is a crucial aspect in the implementation of national education systems to cope with change. Elementary school teachers have a great responsibility to introduce and embed the students' understanding of science and technology. It can be realized through a strong professional competence of teachers in science teaching using a variety of innovative learning model that empowering potential learners. Problem based learning as one of the models suggested in the practice of the educational curriculum. Thus the thinking skills and students' awareness of self and surrounding environment further improved.

They are motivated to study subjects related to science and technology. Ideally, an elementary school teacher should be able to create or develop basic academic life and their emotional to the understanding of science and technology and encourage them not only to study certain subjects but to become lifelong learners.

Nowadays, the evaluation of teachers especially primary school teachers has been a major focus of education policy debate and research efforts. The paradigm change of primary school teachers in science is strongly influenced by a weak mastery of scientific knowledge (Haase, 2009). In fact, that science teaching practices in schools, teachers are still a little exposes students to the real world related to his life. Learning is not contextual and are still predominantly in lecture mode. The questions of concern to it about the relationship between teacher evaluation and student achievement of learning outcomes. Research results have shown that the ability of teachers in teaching students very big influence on the competence of their lives, not only in government schools but also private schools. Evaluation of accountability and to improve teaching practices of teachers is necessary.

There are six components involved in the achievement of professional teachers to be more effective is: (1). High-quality standards for instruction, (2). Multiple standards-based measures of teacher effectiveness, (3).High-quality training on standards, tools, and measures, (4). Trained individuals to interpret results and make professional development recommendations, (5).High-quality professional growth opportunities for individuals and groups of teachers, (6). High-quality standards for professional learning (Goe, Laura., et al: (2012).

The results of the international conference of teacher education in Bandung in 2010 to discuss issues including; What the new teacher education and why is it important ?, what elements must be met on a professional and qualified teacher ?, how the new model of teacher education and its implementation ?, and how the role of educational researchers ?. Discussion of these issues will be linked once from a variety of perspectives. Teacher professional


ISBN: 978-602-74576-0-7

development guided by some basic assumptions, namely: (a) career of teachers professional should be understood as a continuous process that should always be fostered. All institutions involved in education or teacher preparation should cooperate closely and compact in the development process. (B) Teacher education must begin from the efforts to create a structural and conceptual coherence in order to obtain a more quality teacher education. (C) Professional education teacher has a strategic position because it deals directly with efforts to improve learning ability that is directly related to the self confidence of a nation to exist in the world. (D) Accreditation is an important process for maintaining and guaranteeing the quality. In the last decade, there has been serious discussion about the need to recruit more young people to careers in science and engineering so as to improve the economic development and welfare of the community. Rocard (2007) reported that the inquiry-based science teaching approach is one means to address the need to improve the teaching of science. To achieve this goal, teachers must be enabled to adapt to the inquiry-based method of making science teaching more effective, including elementary education level. In this process, they should be supported by providing training and access to innovative methods and research-based knowledge.

Based on the description, the focus in this article the author discusses how the attainment of professional competence development of science in elementary schools through an integrated problem-based learning model. Objective which is to obtain information about the achievement of professional competence in elementary school science.

## REVIEW OF RELATED LITERATURE

### Integrated Science-Based Learning Problems In Elementary School

The rapid development of science can not be separated from its pragmatic purpose, namely technology. Form of application of science to the different technology such indirectly supports the development of science becomes more and more perfect. Science and technology will eventually answer back basic questions about the nature of man, and also the way humans treat nature (know why and then know how). All of this is aimed at taking advantage of knowledge that is natural to human life. Nature is becoming a major human living environment should be a comfortable place to be occupied. In fact human nature that is processed in the utilization often damaged because the man did not make the good and mature.

The emphasis of science in the future will most likely be working on two critical field namely communication technology and efforts to solving the energy crisis that can no longer rely on natural energy sources such as oil and gas, coal energy, water energy and wind energy. Science macro (nature of the human environment) and micro science (molecules, atoms, and nuclei) will be more developed and deep with good communication between the two (Suryani, 2010). Pure science and applied science (technology) are both more developed and support one another. All of this will be supported by computing technology that can calculate the level of high and very thorough and credible. Gomlekzis (2012) suggested that the learning curriculum of science and technology at the level of basic education is directed at a student-centered learning environment with constructivist approach to learning and behavioral approaches.

One thing to overcome problems related to science and technology, then teaching practice in schools is necessary for an understanding of the teacher learning integration concepts clump of science-based issues. Learning Through the innovative development of integrated science (chemistry and biology) Problem Based expected to provide solutions to problems of primary school teachers in solving problems related to science in everyday life. Because the chemistry of many once contributed ideas to other disciplines who assist in solving the problem of science. The most important principle in educational psychology accordance constructivist view is that teachers do not merely impart knowledge to students. Students must construct their own knowledge.

For students to truly understand and can apply the knowledge, they should work to solve problems, find everything for himself, trying to find ideas. Bull., Et al (1999 Lin & Huang, 2007) that the problem-based learning, teachers can give risers (scaffolding) which brings students to a higher understanding so that students construct his own knowledge, with a record of the students themselves who must climb child the staircase. Akcay (2009) also suggests that the problem based learning program that is implemented for prospective teachers lecture in essence makes prospective teachers to gain an understanding and mastery of knowledge, have problem solving skills, learn to direct / manage their own learning, and group participation. PBL can improve high-level thinking skills through the provision of critical issues question that requires a person to think and search and analyze


ISBN: 978-602-74576-0-7

the data in the settlement of the solution of the problem.

Natural Sciences is one of the subjects taught in elementary school. By the very nature of science consists of a collection of scientific products and a series of scientific process. Science products includes facts, concepts, principles, theories, and laws. While the process is conducted by scientists to study the nature of this is empirical and analytical procedures (Hidayat & Iskandar, 1997). The interaction between the two components of the science very closely and can not be separated. The resulting scientific products of scientific process will in turn traffic system is the basis for subsequent scientific process to produce new scientific. A continuity that never dropped out, so it makes science as a discipline that is very dynamic.

Science teacher education is a critical component to developing "science literacy" for the country. The main benefit of the education of science teachers is to prepare teachers to understand the science and technology significantly to the local community, students' personal lives and social issues that develop. Science is a basic force that can be done to improve human life with a scientific approach. The role of scientists in developing the improvement of environmental hygiene, health-related technologies, build the defense system of the country, build a model of a computer network system, all have an impact on human attitudes toward it environment. The purpose of learning science for elementary students are: (1) Instill a sense of curiosity and positive attitudes towards science, technology and society, (2) develop process skills to investigate the environment, (3) develop knowledge and scientific concepts elaborate that will useful and can be applied in everyday life, (4) participate in maintaining, maintaining and preserving the natural environment, and (5) respects the environment, and any regularity as one of God's creation (Muslichach, 2006)

**Professional competence**

Modeling and assessing the current competence promoted as a basis for policy control of education, especially at the level of primary and secondary education (Stiller, 2013). This applies to students in various stages of learning, as well as for teachers in professional development Recently, a transfer term competency for teacher education is very important, especially research-oriented science teacher education. The basic thing to do with the development of scientific literacy of students so that students can participate actively in society later. Teachers should be able to provide a productive learning environment. Therefore, look at the competence of teachers in terms of learning by designing a scientific investigation through the issues can be seen as part of professional competence (Baumert & Kunter 2006 in Stiller, 2013). Professionalism comes from the profession, which means a field of work you want or will be occupied by someone. Professionals also be interpreted as a specific position or a job that requires specific knowledge and skills gained from intensive academic education (Webstar, 1989). So profession is a demanding job or position specific skills. This means that any employment or occupation-called profession can not be held by just anyone, but requires preparation through education and training in particular.

Professional is a job or activity carried out by a person's life and a source of income that requires expertise, skills, or skills that meet certain quality standards or norms and requires professional education (Law No. 14 Year 2005 on Teachers and Lecturers). Professions indicates that specialized field and requires special study and mastery of depth, such as law, military, nursing, education, and so forth. Work that is professional is a job that can only be done by those specifically prepared for that and not the work done by them because they could not obtain another job (Usman, 2005). Someone who studied law profession is a lawyer, such as prosecutors, judges and lawyers. Someone who studied nursing profession is a nurse. Meanwhile, someone in the world of education (educating and teaching) is a teacher, and a variety of other professions. Surya (2005) that the professionalism of teachers have an important meaning, namely: (1) professionalism guaranteed protection to the welfare of the general public; (2) the professionalism of teachers is a way to improve the education profession that is considered by most people is low; (3) provides the possibility of improving the professionalism and self-development that enables teachers to provide the best service possible and maximizing competence. The quality of professionalism shown by the five attitudes, namely: (1) the desire to always display the standard approach ideal behavior; (2) to improve and maintain the image of the profession; (3) the desire to always pursue professional development opportunities to enhance and improve the quality of knowledge and skills; (4) the pursuit of quality and ideals in the profession; and (5) pride in his profession.

Improving the quality of education can be achieved through a variety of ways, among others: through the improvement of qualification of teachers and other education personnel, training and education, or to provide an opportunity to resolve the problem of


ISBN: 978-602-74576-0-7

learning and not it in a professional manner through action research in a controlled manner. Teachers as a profession developed through: (1) the education system; (2) quality assurance systems; (3) management system; (4) The remuneration system; and (5) the support system of the teaching profession. With the development of teachers as a profession are expected to: (1) establish, build, and manage teachers who have high dignity in the community; (2) improve the lives of teachers prosperous; and (3) improve the quality of learning that is able to support graduates who are competent and standardized in order to achieve the vision, mission and objectives of national education in the future. It is also expected to encourage the establishment of teachers who are intelligent, cultured, dignified, prosperous, sophisticated, elegant, superior, and professional (Gani 2009; Goe, Laura., Et al, 2012)

Goe (2012) suggested that future teachers are expected to increasingly consistent in promoting cultural values of quality, transparency, democratic accountability and uphold the duties and conduct day-to-day functions. Efforts to improve the quality of teachers and other education personnel to resolve problems encountered while performing their duties will have a positive impact. First, the ability to solve problems real education will increase. Second, problem solving education and learning through a controlled investigation will be able to improve the quality of content, inputs, processes, and learning outcomes. Third, improving the professionalism of teachers and other education personnel. Rapid advancement in technology is accompanied by the rapid advancement of knowledge. In the context of rapid change, it is very important for academics to update their knowledge and skills and be sensitive to the latest developments in the world. Academics in the Code of Professional Development (MOE 2009) stipulates that academics have some role to perform actions such as teaching, research, learning and coordinated development program for professional development. Professional Development academia growth implies knowledge of the subject, pedagogy and training, nurturing learners in their task (Seyoum, 2013).

## METHOD

This research used descriptive method for data collection. Data obtained using a questionnaire and a test instrument mastery of elementary school science content. Questionnaire useful to collect information on professional competence (including sub competency A, namely the ability to master the field of academic study; sub competence B, namely the ability to manage teaching and learning program, sub competence C, ie the ability of developing procedures-methods and encourage new ideas in learning as well as sub D competence, ie the ability to do the right new strategy in resolving a problem) for pre-service teachers and student of primary school teachers who are experienced in the lecture. Pre-service teachers are given lectures of integrated science-of problem based learning experience while in-service teachers with experience of a traditional lecture. The test instrument used to strengthen the results of a questionnaire filled in understanding science concepts integrated mastery (sub competencies A/mastery of the academic studies). Respondents who were 70 students involved 35 students the second semester of the school year 2014/2015 and 35 teacher students primary school teachers education programme in Padang State University

## FINDINGS AND DISCUSSION

This research had showed descriptive study on the implementation of integrated science lectures issue for primary school teacher education students. In this case, the student (preservice teacher) who taught with problem based integrated science courses provide results better professional competence to sub competency (A) or mastery of academic study than the traditional lecture for students of elementary school teachers. The result can be seen in Figure 1 below.


ISBN: 978-602-74576-0-7

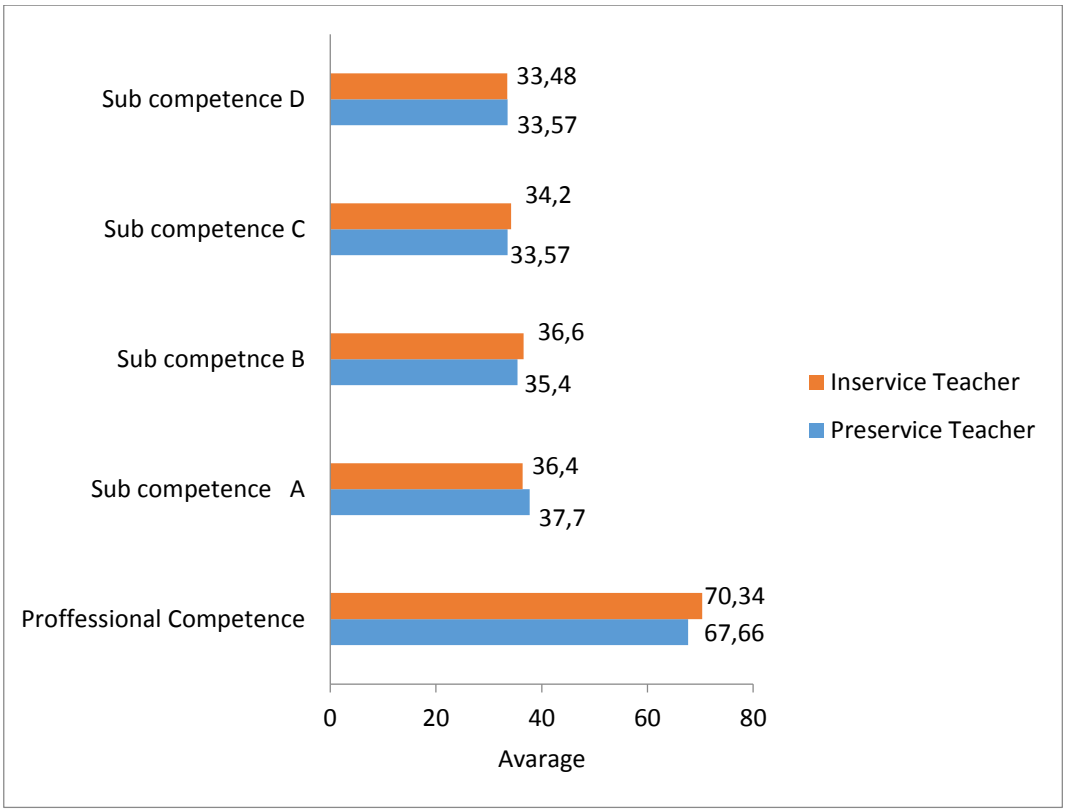



Figure 1. Achievement of Professional Competence Preservice teachers and Inservice Teachers

Figure 1 show the findings that the achievement of professional competence of student teachers for sub competency A (mastery of academic studies for the basic sciences) gained an average of 37.70. Average achieved sub competencies A for student teachers vary by 1.3 point. This shows that problem-based integrated science the lecturing able to make the learners construct the meaningfull learning. The use of Problem Based Learning model of the type of integrated learning science can create an environment of learning centered on student activity so that students can construct they knowledge and can integrate lessons learned at school with daily life (Akcay, 2009). Giving a problem and look for answers in the process of learning can help students to more easily remember the material being studied, so that students can better understand the material (Phee, 2002).

Further it was found that the overall professional competence obtained an average Preservice teacher professional competence of 67.77 compared with the average achieved professional competence of Inservice teacher at 70.34 value average. This may imply professional competence of student teachers is better than the experienced student teachers and the average achieved differed by 2.68 points. Seen that student teachers have not been trained in the procedure-method development capabilities-and encourage new ideas in learning. While students are experienced teachers teaching in primary schools on average five years. Although the average achieved professional competence of student teachers is higher than the preservice teachers, but for the sub D competence (the ability to do the right new strategy in resolving a problem) needs to be improved and developed further. One of the things that can be done to respond to and overcome this condition is by providing training to teachers workshop implementation of integrated learning through problem-based lesson study.

The results of the study indicate the problem-based integrated learning program has been able to improve the learning outcomes of students in terms of mastery of concepts and their problem-solving abilities. Learners can feel the benefits, increase pleasure or motivation, and increase awareness of their self-regulated learning in science learning. Sensitivity and caring attitude towards science is shown on the pleasure and satisfaction of learners in a learning which enable all the potential of the skills and capabilities of its thinking, especially in the problem solving process (Essler & Mary, 1996).


ISBN: 978-602-74576-0-7

Significantly improve problem solving skills and understanding of the concept of self-management of learners. Understanding the concept includes the mastery of concepts and skills of metacognition. Research on metacognition shows a strong correlation between problem solving and metacognition, that individual learners with higher levels of metacognition skills will succeed in solving the problem (Schoenfeld, 1992; Mevarech & Kramarski, 1997). Integrated physics and chemistry programs contribute to the cognitive development of students (Tsaparlis & Kampaurakis, 2000).

Reay (1979) at the Varna International Congress put forward four grounds of the importance of the integration of science teaching; 1) teaching integrated science contributes to public education, stressing the basic unity of science and achieve an understanding of science in contemporary society. This avoids unnecessary duplication on the introduction of the discipline of the medium, 2) A lecture / science program integrates should emphasize the importance of observation for an improved understanding of the environment, 3) A lecture / science program is integrated to be able to introduce and develop logical thinking and the scientific method, 4 ) Significantly for the educators and the public that the balance between integration and coordination will depend on the student's age, the type of educational institutions and the condition of the region.

## CONCLUSION

Efforts professional development of teachers is very important to be sustainable. A teacher who has high professional competence should be able to demonstrate all of the aspects of competence synergize each other. Aspects mastery of academic study or mastery learning materials very important in the transformation of teaching and learning process for learners. Based on the research results it can be stated that the characteristics of mastery of the material to be taught is crucial to the ability to do the right new strategy in resolving a problem. This means that a teacher should be able to make innovations in learning to find solutions to the problems faced improvements. For that we need the attention and commitment of each policy authorities in the schooling system in particular as well as general education system that enhances the frequency of training sessions and workshops lesson study. So with these containers could encourage the professional development of teachers, especially primary school teachers. According to thematic learning patterns in elementary school that is holistic-integrative learning. This can be achieved by a problem-based integrated learning model.

## References


Akcay, B. 2009. Problem base learning in science education. *Journal of Turkish Education*, 6 (1): 26-35

Esler, William K & Mary K. (1996). *Teaching Elementary Science. Seventh Edition*. USA: Wadsworth Publishing Company.

Goe, Laura,. Et al. (2012). *Linking Teacher Evaluation to Proffessional Development Focusing on Improving Teaching and Learning*. National Comprehensive Center for teacher Quality.

Gömleksiz, M. N. (2012). *Elementary School Students' Perceptions of the New Science and Technology Curriculum by Gender*. Turkey: Educational Technology & Society, *15* (1). International Forum of Educational Technology & Society (IFETS).

Haase, Rita. (2009). *Elementary Teachers Attitudes Toward Science and The Teaching of Science and Technology.* Canada: Universitas of Windsor, Ontorio

Iskandar, S.M, dan Hidayat, E.M. (1997). *Pendidikan Ilmu Pengetahuan Alam*. Jakarta: Depdikbud

Mevarech, Z.R. & Kramarski, B. (1997). *A Multidimensional Method for Teaching Mathematics in Heterogenous Classrooms. American Educational Research Journal, 34 (2), 365-395*

Muslichach, Asy'ari. (2006). *Penerapan Pendekatan Sains-Teknologi-Masyarakat dalam Pembelajaran Sains di Sekolah Dasar*. Yogyakarta: Depdiknas.

Phee, A.D.Mc. 2002. Problem base learning in initial teacher education: *Taking Agenda Forward. Journal of Education Enquiry*, 3 (1): 60-74

Reay, Judith. (1979). *New Trends in Integrated Science Teaching*. UNESCO: University of the West Indies.



ISBN: 978-602-74576-0-7

Rocard, M., Csermely, P., Jorde, D., Lenzen, D., Walberg-Henriksson, & Hemmo, V. (2007). *Science Education Now: A Renewed Pedagogy for the Future of Europe*. Directorate General for Research, Science, Economy and Society.

Schoenfeld, A. (1992). *Learning to Think Mathematically: Problem Solving, Metakognition, and Sense Making in Mathematics.* Handbook of Research on Mathematics Teaching and Learning (pp. 165-197). New York: MacMillan

Surya, Muhammad. 2005. Membangun Profesionalisme Guru. dalam Makalah Seminar Pendidikan. 6 Mei 2005 di Jakarta.

Usman, Moh. Uzer. 2005. Menjadi Guru Profesional. Bandung: Remaja Rosdakarya.

Surjani, W. (2010). *Menciptakan Masyarakat Sadar Sains*. Jakarta: PT Indeks

Tsaparlis, G & Kampaurakis, C. (2000). An Integrated Physical-Science (Physics and Chemistry) Intoduction for Lower-Secondary Level (Grade 7). *Research and Practice in Europe, Vo.1, No.2, pp.281-294. University of Ioannina, Departement of Chemistry*

UPI. Universitas Pendidikan Indonesia. (2010). *Re-Desain Pendidikan Profesional Guru*. Bandung: UPI Press

Vasconcelos, Clara. (2010). *Teaching Environmental Education through Problem Based Learning: Evaluation of a Teaching Intervention Program.* Department of Geoscience, Environment and land Planning Centre of geology of Oporto University, Fakulty of Science, Rua du Compo Alegre,4169-007 Oporto, Portugal.


ISBN: 978-602-74576-0-7

# IMPROVING THE STUDENTS' READING COMPREHENSION BY USING AUTHENTIC MATERIALS AT VOCATIONAL COLLEGE

*Cholimatus Zuhro*
*Language, Communication and Tourism Department, Politeknik Negeri Jember*
*Jember Indonesia*

*Abstract*

Reading means different things to different people. For some it is about recognizing written words. For some others, it is an opportunity to learn knowledge. Reading which is one of the language skills and considered as a passive skill is essential to be mastered by the students since it plays significant role in language acquisition such as in learning language components such as grammar and vocabulary. The reading skill can be improved by selecting interesting reading materials such as from authentic materials because authentic materials contain text that close to real life and very contextual.The use of authentic text is adressed for teaching reading comprehension as well as for creating materials to improve the teaching learning process of this skill. Any-well prepared learning task using authentic material will encourage a better understanding of reading comprehension. This article attempted to analyze and discuss the using of authentic material to enhance the effectiveness of teaching reading in State Polytechnic of Jember. A quasi experimental research was employed with two purposively selected classes. The students in the experimental class were taught using authentic materials, while the students in control class were taught using textbooks. Data from this study were drawn through the pre-test and post-test which were used to measure their ability before and after treatment. Quantitave data were collected and analyzed by using the Stastistical Package for Social Sciences (SPSS). In the finding, the result obtained that the students in the experimental group had higher achievement than the students in control group. It was found that the uses of authentic materials in this study improved the students' reading comprehension effectively. They were able to get information from the texts well. The materials were able to amuse the students and enhance their awareness in analyzing texts. Learning activity also becomes more interesting and and not boring. Thus, it is recommended that authentic materials can be used during the reading taching to make the lesson more interesting and to achieve better performance among the students

## 1. Introduction

Reading means different things to different people. For some it is about recognizing written words. For some others, it is an opportunity to learn knowledge. Thus, reading consists of two related processes: word recognition and comprehension. Word recognition refers to the process of perceiving how written symbols correspond to one's spoken language. Comprehension is the process of making sense of words, sentences and connected text. Readers typically make use of background knowledge, vocabulary, grammatical knowledge, experience with text and other strategies to help them understand written text. Reading is an interactive process between the text and the readers‟ mind (Carrell, Devine, and Eskey 1988). Before the reader is really involved in the activity of reading the text, his/her background knowledge has been activated, thus s/he has been psychologically prepared with the anticipation of meanings. In the process of reading the text, the mind is going back and forth, creating meanings, checking whether the meanings go in line with the contents of the text, revising and creating new meanings, then rechecking them to the text, and so forth.

Reading is a lifelong skill to be used both at school and throughout life. According to Anderson, Hiebert, Scott, & Wilkinson, reading is a basic life skill. It is a cornerstone for a child's success in school and, indeed, throughout life. Without the ability to read well, opportunities for personal fulfilment and job success inevitably will be lost (1985). Despite its importance, reading is one of the most challenging areas in the education system. In teaching reading, there are several purposes that can bi accomplished, such as improving reading skills, introducing new language, introducing genre, recycling target language, assessing learners‟ ability, and providing knowledge of the world. The main aim of teaching reading is, basically, to improve learners‟ reading skills, i.e. reading for gist (general ideas) and reading for specific information. These are represented by the tasks and activities done by the learners during the teaching and learning process of reading. In teaching reading, teachers can introduce new target language including lexical, grammatical, functional, and rhetorical aspects of the language. Reading activities can also be used to introduce genre. That is done by using varied text types as reading materials.

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

In the teaching and learning process of reading, learners recycle vocabulary, grammar, and knowledge of discourse markers. The lexical, grammatical, and discourse features that have been known are reinforced and practiced, hence becoming more understood and acquired. By monitoring learners‟ involvement in reading activities, teachers are also able to assess learners‟ current perceptive ability of the target language. In addition, by reading English texts, learners can improve their knowledge about the world and add experiences. This is especially true when the texts are authentic materials, taken from the real world, such as news, articles, scientific papers, and research reports, etc.

Authentic materials helps the students bridge the gap between the classroom and the outside world. Nowadays, preparing students for real life situations is of utmost concern for English language teachers, especially in EFL classes. Therefore, like other teachers around the world, especially in places where English is a foreign language, we need to adopt effective teaching materials, in order to help their students learn English better, as well as prepare them to communicate with the outside world. It is supported by Nuttall (1996) who says that “authentic texts can be motivating because they are proof that the language is used for real-life purpose by real people”. As the requirement of today communication, the activities in English language teaching must be accomplished to fulfil the needs for surviving in the real communication, so there must be relationship between classroom activities and real life.

For the reason that authentic materials can reflect the real communication, that was might be the case of authentic materials appeared and favoured by many
educational practitioners. Richard (2006:21) argues that the real life communication should mirror as similar as possible to classroom activities or use “authentic” sources for classroom learning. He then concluded some arguments in favour of the use of authentic materials that “authentic materials provide cultural information about the target language, they provide exposure to real language, they relate more closely to learners’ needs and they support a more creative approach to teaching” (Richard, 2006: 21).

This study intends to investigate the effects of authentic materials on second language learning, in the area of reading comprehension. It seeks to find out how learners can learn in the real language and real situation by using authentic materials. In particular it aims at investigating the effectiveness of authentic materials to improve reading comprehension of the students of Horticulture Study Program Politeknik Negeri Jember.

## 2. Literature Review

### 2.1. Review of Previous Researchs

Thanajaro (2000) conducted a research to examine the influences of aural authentic materials on listening ability in students of English as a second language. The secondary purposes of the study were to identify the learning strategies used by ESL students experiencing authentic listening texts and to determine the influences of authentic materials on ESL students' attitudes towards learning English. Analysis of the interviews and the self-evaluation questionnaire revealed that the use of authentic materials in this ESL classroom helped increase students'comfort level and their self-confidence to listen to the target language. Finally, analysis of the class observation and the interview with students showed that the use of aural authentic materials in ESL classroom had a positive effect on ESL students' motivation to learn the language.

A study conducted by Ghaderpanahi (2012) in Al Zahra University of Iran which examined the influences of authentic aural materials on listening ability of thirty female undergraduate psychology majors studying English as a foreign language. It basically focused on using authentic materials and real-life situations as part of the communicative approach. Analysis of the interviews and the questionnaire revealed that the use of authentic materials in the EFL classroom enhanced EFL students' listening comprehension ability. Results showed a statistically significant improvement in listening ability of the EFL students.

### 2.2. The Review of the Related Theories

A scientific research needs sufficient theories to guide the researcher in conducting a research. The theories also guide the research process, forms the research questions, aids in design, analysis and interpretation.

#### 2.2.1. The Nature of Reading

Nuttall (2000: 4) also defines reading as a process. She connects reading with the communication process and states that reading means getting out of the text as nearly as possible with the writer’s messages. In other words, the writer as an encoder has something in mind which


ISBN: 978-602-74576-0-7

wants to be shared with other people during that process. To make it happen, the writer puts his ideas into words as a text. While the reader plays a role as the decoder, who may decode or construct meaning of the text, before the messages enter the reader's mind and finally communication is achieved.

Moreover, Grabe (2009: 14) defines reading as complex combinations of processes. He describes those processes in ten detail processes. At the top, reading can be seen as a *rapid process* in the sense of how fast a person read materials. There are various processing skills work together during reading, such as word recognition, meaning formation, text comprehension, inferencing, critical evaluation and linking to the prior knowledge. Those synchronized processes make reading as an *efficient process*.

**2.2.2. Authentic Materials & Authenticity: Sources and Choices**

Authentic materials had been used for language learning for several years ago due to the rise of communicative approach. The goal of that approach is to develop communicative competence in a real life. For the purpose of the teaching and learning English, an authentic text is one whose primary intent is to communicate meaning. The relevant consideration here is not for whom it is written, but that there has been an authentic communicative objective in mind. Besides that, Wallace cited in Berardo (2006) adds that authentic materials or texts are texts used in real life communication which are not written for pedagogic purposes. In brief, a text is usually regarded as authentic if it is not written for teaching purposes but for a real-life communicative purpose, where the writer has certain message to pass on the reader.

Authentic texts have been defined as *"…real-life texts, not written for pedagogic purposes" (Wallace 1992:145)* They are therefore written for native speakers and contain "real" language. They are *"…materials that have been produced to fulfil some social purpose in the language community." (Peacock (1997),* in contrast to non-authentic texts that are especially designed for language learning purposes. The language in non-authentic texts is artificial and unvaried, concentrating on something that has to be taught and often containing a series of
*"false-text indicators"* that include:
- *perfectly formed sentences (all the time);*
- *a question using a grammatical structure, gets a full answer;*
- *repetition of structures;*
- *very often does not "read" well.*

The artificial nature of the language and structures used, make them very unlike anything that the learner will encounter in the real world and very often they do not reflect how the language is really used. They are useful for teaching structures but are not very good for improving reading skills (for the simple fact that they read unnaturally). They can be useful for preparing the learner for the eventual reading of "real" texts. If authentic texts have been written not for language learning purposes but for completely different ones, where do they come from and how are they selected?

The sources of authentic materials that can be used in the classroom are infinite, but the most common are newspapers, magazines, TV programs, movies, songs and literature. One of the most useful is the Internet. Whereas newspapers and any other printed material date very quickly, the Internet is continuously updated, more visually stimulating as well as being interactive, therefore promoting a more active approach to reading rather than a passive one. From a more practical point of view, the Internet is a modern day reality, most students use it and for teachers, there is easier access to endless amounts of many different types of material. From a even more practical/economical point of view, trying to obtain authentic materials abroad can be very expensive, an English paper/magazine can cost up to 3-4 times the price that it usually is and sometimes is not very good. Often by having unlimited access in the work place, looking for materials costs nothing, only time. Authentic materials should be the kind of material that students will need and want to be able to read when travelling, studying abroad, or using the language in other contexts outside the classroom. Authentic materials enable learners to interact with the real language and content rather than the form.

Learners feel that they are learning a target language as it is used outside the classroom. When choosing materials from the various sources, it is therefore worth taking into consideration that the aim should be to understand meaning and not form, especially when using literary texts with the emphasis being on what is being said and not necessarily on the literary form or stylistics. Nuttall gives three main criteria when choosing texts to be used in the classroom *suitability of content, exploitability and readability.* Suitability of content can be considered to be the most important of the three, in that the reading material should interest the


ISBN: 978-602-74576-0-7

students as well as be relevant to their needs. The texts should motivate as well as. Exploitability refers to how the text can be used to develop the students' competence as readers. A text that can not be exploited for teaching purposes has no use in the classroom. Just because it is in English does not mean that it can be useful. Readability is used to describe the combination of structural and lexical difficulty of a text, as well as referring to the amount of new vocabulary and any new grammatical forms present. It is important to assess the right level for the right students.

Nunan (1989) provides the conventional definition of authentic texts: "Authentic materials are usually defined as those which have been produced for purposes other than to teach language". Such example includes print materials like newspapers and timetables, or spoken materials like public announcements. He also supports that "the use of authentic sources leads to greater interest and variety in the materials that learners deal with in the classroom. This authentic material helps bring the contact to life, and ultimately makes learning and using language more meaningful and easier for students." Authentic materials keep students informed about what is happening in the world, so they have an intrinsic educational value.

## 3. RESEARCH METHODOLOGY:

The researcher conducted the study based on experimental research using pre-test and post-test activities. Both pre test- and post- test used in the research were created by the researcher in order to meet the research purpose, the student's need and the Institution curriculum.Experimental design was used because the researchers had to draw the cause-effect relationship between the dependent and independent variables.

This experiment tested the hypothesis using two groups which were control and experimental groups. These groups which served as samples were selected on the basis of their convenient accessibility and proximity to the researcher. 40 students were recruited for this study. They were students of the third semester of Horticulture Study Program of Language, Communication and Tourism Department of State Polytechnic of Jember. All of the students were taking the course of "Bahasa Inggris". They were both male and female and their age ranged from 18-22 years old. The subjects were randomly divided into two groups: each contents with 20 students. In fact, one of the groups was used as the experimental group (Group A) = (GA) and the other one as the control group (Group B) = (GB).

The researcher firstly gave the pretest to the students from control class and experimental class to know the students' basic scores. Before conducting the pretest, the test items were tried out to the students from another class (class C). The try out was aimed to know the test reliability, difficulty index and the time allocation. The reading test items consisted of 25 multiple choice items with five options. After pre-testing, the teaching and learning activities were given 6 times to the experimental class and the control class. The experimental class received authentic materials as the reading text while the control class was taught by using materials from textbook. They were treated for 6 weeks. Then they were given a post-test to know the differences that treatment had caused. Finally, the results were drawn on the basis of their performance. Both classes were then post-tested with the same test items in pretest.

### .1. DATA ANALYSIS

This part gives a detailed view of what was done to collect the data and the analysis of the collected data. For analyzing data the pre-test and post-test were used as tools. Tables show the results drawn from pre-test and post-test. The researchers taught related vocabulary using authentic materials to the experimental group for six weeks, then compared the results of experimental group with the control group in order to draw the findings and conclusion

The research materials in this study were some authentic materials including English songs, news, movies, etc. some non-authentic CDs, a bilingual dictionary, a reading book and two questionnaires (see the appendix) which were designed for the study.

## 4. RESULTS AND DISCUSSION

### The Result of Pre-Test of Control and Experimental Groups

This is clearly shown in the following tables 1 and 2 which demonstrate statistics and graphic representations of the results for the test (pre-test) for both groups of GA and GB. It has to be clarified that the score scale is 0-50, that is, the perfect score is 50. N refers to the number of the students in a group, SD is the Standard Deviation of the scores and Sum is the total of the scores for all of the students in a group.


ISBN: 978-602-74576-0-7

**Table 1:** Descriptive Statistics for the Proficiency Test (Pre-test) GA

| N | 20 |
|---|---|
| Mean | 37.75 |
| Mode | 38 |
| SD | 2.0487 |
| Variance | 4.197 |
| Range | 8 |
| Minimum | 34 |
| Maximum | 42 |
| Sum | 755 |

**Table 2:** Descriptive Statistics for the Proficiency Test (Pre-test) GB.

| N | 20 |
|---|---|
| Mean | 37.35 |
| Mode | 38 |
| SD | 2.183 |
| Variance | 4.765 |
| Range | 10 |
| Minimum | 32 |
| Maximum | 42 |
| Sum | 753 |

As it is evidenced in the tables above, the two groups of subjects have scored very similar results. The mean for both groups is nearly the same: 37.75 for GA and 37.65 for GB. The Standard Deviation (SD) for the scores of the groups of subjects is also very close: 2.048 for GA and 2.183 for GB. Other measures also show high similarity between scores of the subjects in the two groups.

While the scores could range from 0—50, the highest score for GA is 42; the lowest is 34 so the Range is 8. For GB the highest score is 42; the lowest is 32 sothe Range is 10. The total of scores for GA is 755 and for GB, it is 753. Administering the Pre-test and evaluating the related data here was an attempt to find out if the subjects in the two groups were similar or the same with regard to their basic English knowledge before presenting the treatment. After analyzing the results of the Pre-test, it was concluded that there were not any major differences between the two groups concerning their background English knowledge.

**The Result of Post-Test of Control and Experimental Groups**

**Table 3:** Descriptive Statistics for the Achievement Test (Post-test) GA.

| N | 20 |
|---|---|
| Mean | 13,6 |
| Mode | 14 |
| SD | 3,1689 |
| Variance | 10.042 |
| Range | 12 |
| Minimum | 7 |
| Maximum | 19 |
| Sum | 272 |

**Table 4:** Descriptive Statistics for the Achievement Test (Post-test) GB.

| N | 20 |
|---|---|


ISBN: 978-602-74576-0-7

| | |
|---|---|
| Mean | 11.55 |
| Mode | 13 |
| SD | 3.2032 |
| Variance | 10.4 |
| Range | 12 |
| Minimum | 6 |
| Maximum | 18 |
| Sum | 231 |

The tables above evidently show that the two groups of subjects have scored different results. The means for the two groups are different: 13.6 for GA and 11.55 for GB. The Standard Deviations (SD) for the scores of the groups of subjects are also a little different: 3.1689 for GA and 3.2032 for GB. Other measures also show difference between scores of the subjects in the two groups. While the scores could range from 0—20, the highest score for GA is 19; the lowest is 7 so the Range is 12. For GB the highest score is 18; the lowest is 6 so the Range is 12. The total of scores for GA is 272 and for GB, it is 231. Administering the achievement test (Post-test) and evaluating the related data here was an attempt to find out if the subjects in the two groups were different with regard to their level of achievement of the materials of the passage after treatment.

A t-test was also used to show whether or not the difference between the means of the scores of two groups (GA, the experimental group, and GB, the control group) in the achievement test (Post-test) was significant enough. The purpose of t-test was also to assess the hypothesis which assumed that "teacher's using authentics materials in teaching new vocabulary has a positive effect on students' reading comprehension in English classroom at State Polytechnics of Jember. " In t-table, it was observed that when the 'level of significance for two-tailed test' was 0.05, with the 'df' of 38, the critical value would be 2.021. As it is shown in the table below the t-observed value is 2.07.

**Table 5:** t-observed and t-critical for scores means of the two groups ( GA and GB) in the Achievement Test.

| t-critical | two-tailed | df | t-observed |
|---|---|---|---|
| 2.021 | 0.05 | 38 | 2.07 |

Fortunately, the t-value is enough above t-critical that we are quite safe in rejecting the null hypothesis, teacher's using authentic materials teaching reading comprehension has no effect on students' reading comprehension in English classroom at State Polytechnic of Jember," and approving the positive hypothesis. Our two groups have scored differently on the achievement test (Post-test). The difference is statistically significant. This is a support for our claim that using authentic materials by the teacher in English class can help students comprehend the reading materials better.

The result of the research showed that the students of the experimental class who were taught reading comprehension by using authentic materials got better result on the reading comprehension achievement test than the students of the control class who were taught by using materials from text-books. Authentic materials are suitable for the students since they could increase their motivation to participate in classroom activity. Students with greater second/foreign language learning motivation, in most cases, receive higher grades and achieve better proficiency in the target language. Besides, the use of authentic materials is believed to be very useful for it bring the students to the direct use of the language in a certain community. The language used in the authentic text is natural, in which the writer intention is not to educate someone, rather to express their self using language. That is why the language used in the authentic text and those in the textbook are quite different because the text in the textbook has been modified and designed for the formal use. By using authentic materials, the students found vocabularies and expressions that they had never heard and they could not even found in the text books.


ISBN: 978-602-74576-0-7

## CONCLUSSION

Regarding the finding of the research, it can be concluded that there was a significant effect of using authentic materials on the third semester students' reading comprehension at Horticulture Program Study at Politeknik Negeri Jember.

The results of this study demonstrates that learners achieve differently depending on teacher's material. The analyzed data provides evidence that this difference is significant enough. Actually the findings of the study approved that when teachers uses authentic materials in their teaching in class, the consequence is the learners can learn the new words better and have better accomplishments in their learning.

By using the authentic materials, and using an observation and questionnaires, the results show that most of the students' attitudes towards the use of authentic English language materials are positive and they enjoy learning. Also it shows that authentic material could influence both learning and teaching.

## REFERENCES


Anderson, R., Hiebert, E., Scott, J., & Wilkinson, I. (1985).*Becoming a nation ofreaders: The report of the commission on reading.* Washington, DC: National Institute of Education and the Center for the Study of Reading.

Berardo, S.A. 2006. *The Use of Authentic Materials in the Teaching of Reading*. The Reading Matrix Vol.6. No.2. Page. 60-767

Carrell, Patricia L., Joanne Devine, and David E. Eskey, eds. (1988). *Interactive approaches to second language reading*. Cambridge: Cambridge University Press

Ghaderpanahi, L. (2012). Using authentic materials to develop listeningcomprehension in the EFL classroom. *English Language Teaching, 5* (6). doi: 10.5539/elt.v5n6p146

Grabe, W. 2009. *Reading in a Second Language: Moving from Theory to Practice.* Cambridge: Cambridge University Press.

Lewis. M. (1993). *The lexical approach*. Hove, UK: Language TeachingPublications.

McDonough, J., & Shaw, CH. (2003). *Materials and methods in ELT*. UK: Blackwell Publishing.

MacDonald, M. N., & Badger, R. Dasli, M. (2006). Authenticity, culture and language learning.

Nunan, D. (1989). *Designing tasks for the communicative classroom*. Cambridge: Cambridge University Press.

Nunan, D & Lamb, C. (1996). *The self-directed teacher. managing the learning process.* United States of America: Cambridge University Press

Peacock, M. (1997) *The Effect of Authentic Materials on the Motivation of EFL Learners* in *English Language Teaching Journal 51, pp 2*

Richards, J.C. (2001). *Curriculum development in language teaching*. U.S.A.: Cambridge University Press

----------. (2006). *Communicative language teaching today.* U.S.A: Cambridge University Press

Thanajaro, M. (2000). *Using authentic materials to develop listening comprehension in the English as a second language classroom*: Virginia Polytechnic Institute and State University. Retrieved from Virginia Polytechnic Institute and State website: http//University *scholar.lib.vt.edu/theses/available/etd-03012000.../Metinee.pdf,* accessed on January 9th 2016

Wallace, C. (1992) *Reading* Oxford, O.U.P.



ISBN: 978-602-74576-0-7

# THE IMPLEMENTATION OF COLLABORATIVE LEARNING MODEL TO IMPROVE INSTRUCTIONAL QUALITY IN EDUCATIONAL TECHNOLOGY DEPARTEMENT

SISCA RAHMADONNA

*Educational Technology, Yogyakarta State University, Jalan Colombo no.1 Yogyakarta, 55281, Indonesia*

Abstract

In essence, this research aims to improve instructional quality through collaborative learning model especially in course the development of printed learning, in Educational Technology Department. This study uses lesson study that includes two cycles. Each cycle is consisting of planning, implementation and evaluation (plan-do-see). The implementation of this research is focusing on the planning in first cycle. The second cycle is the result of evaluation from the previous cycle. Data are analysed qualitatively for presenting comprehensive result.

The results of this study are: (1) The collaborative learning model was quite effective in the implementation of course the development of printed learning, because this course is more demanding students' ability to cooperate with others; (2) Collaborative learning is able to provide a significant impact on improving the quality of learning. It can be seen from learning result that has been achieved by students after learning process.

***Keywords:*** Collaborative learning, instructional quality, printed learning.

## 1. Background

Course the development of printed material is a subject of theory and practice that required for students in educational technology department that chooses media concentration. In this course, students are required to develop a good printed material, such as modul, student manual book, handout, and so forth.

In this course, students are required to have capability in educational technology theories, which includes the theory of learning, educational technology, instructional strategy, media, and design learning message. The importance of this course requires students to be taking seriously in designing and developing printed learning materials. Unfortunately, many factors that cause the quality of printed learning materials developed has not really qualified.

Various attempts were made in order to improve the quality of printed learning materials, such as making guidebooks theory and practice for developing of printed learning materials as a result research conducted by Isniatun Munawaroh, et al. (The Development of Student manual book in course the development of printed learning, in Curriculum and Educational Technology Department, 2014).

On the other hand, it is realized in the development of a good printed learning materials, students need feedbacks and suggestions from others in this regard lectures or peers who are considered more qualified. Therefore, collaborative learning model is believed to be one of the most effective learning models in applied to the course of printed learning materials. It is given that the application of cooperative learning model can stimulate students how to learn together and give feedback for each other. According to Slavin (1987), the behaviour of one or more members gives a blessing for the group. The group works on two rules, the first lecturer offer a reward or punishment. The second, both members of the group implementing the reward or punishment to one another. Group member motivates each other to work well. The other concept of behaviourism is reinforcement, it has meaning that students learn not only to obtain a reward or punishments, but also see others receiving rewards and punishments.

The structure is characterized by a number of collaborative goal interdependence that is so great among the students in a group. In collaborative learning, learners say "we as well as you," and students will reach the goal only if other learners in the same group can achieve their goals together (Arends, 1998; Heinich et al., 2002; Slavin, 1995; Qin & Johnson, 1995).

Based on the above assumptions, the lesson of this study is intended to look at the execution plan collaborative learning instructional strategies in an effort to improve the quality of printed learning materials developed by students in the course the development of printed learning materials.


ISBN: 978-602-74576-0-7

## 2. Implementation

The implementation of this activity included two cycles. Where is in each cycle consists of three primary activities (plan-do-see).

### 2.1. *Cycle 1*

#### *2.1.1 Description*

The action in the first cycle begins with the application of Collaborative Learning by using groups. The implementation of this study aimed to improve the ability of students to create a concept main mapping of printed learning material and improve the ability for work in a group. The first cycle was conducted over one face-to-face meeting or 2 hour lessons.

The implementation of this learning is done by one lecturer model that served to teach and to be a facilitator of learning, two observers were tasked to observe and evaluate the learning process. In the first cycle the implementation of collaborative learning is done by a method which includes two activities, namely a group discussion and result presentation of group discussions. The presentation are represented by the delegates of each group.

#### *2.1.2. Plan*

The initial stage is conducted in cycle one is a plan. The stage was starting by drafting the plan begins which is learning to be carried out based on preliminary data submitted by the student condition. It was also serving as a lecturer on the implementation of the model's lesson study. Lesson plan is created by focusing on emphasizing the importance of teamwork and discipline students.

#### *2.1.3. Do*

Stage do or learning implementation in cycle 1 begins with lecturer model opened a lesson. In this activity, students learned in work group, students divided themselves into small groups, members of each group are determined by students independently.

In groups, students discussed an ideal printed learning material according to the perspective of each other. After that, they were together create a main mapping of the development an ideal of printed learning materials base on their respective groups.

In addition, students should be writed down their discussion on manila paper that has been provided, they also prepared power point presentation to show part of content learning material that they have developed.

Moreover, after they finished group discussion, one student representative from each group should be present the results of their discussion. This presentation was panel presentation.

Finally, At the end of the activity, lecturer model made conclution and added more information related to the student presentations. It aimed to give comprehensive knowledge for students. Consequently all of students would gain a better understanding about concept in the development of printed learning materials. Futhermore, lecturer model was also emphasized the importance of working in a group to get feedbacks and suggestions for they assigment. Lecrurer should give a strong motivation for the students. This was an ending activity in cycle one.

#### *2.1.4. See*

Phase see or learning evaluation was done immediately after they do stage done. At “see” stage, lesson study team discussed all the activities that have been implemented at “do” stage. Based on the observations made by the observer, “do” had some shortages, for examples:

1. There are many students who are not disciplined in following learning activity; it was seen from the number of students who come late. This caused less maximal group discussions were held.
2. Teamwork was still not seen as a good teamwork. When some group discussed about an ideal concept for developing printed learning materials, some students were not serious to be participants of the discussion. There are some students in the group were seen busy with their own activities and were not involved in the discussion.

Based on result discussion of the lesson study implementation, it was necessary to reform and plan more ideal learning for the second cycle, so that the implementation of lesson study can be run well and able to achieve the goals that have been planned.

□

### 2.2. *Cycle 2*

#### *2.2.1. Description*

Cycle two in this activities was focused on increasing the quality of content and design of printed learning materials, it required students to have better understanding not only about subjects characteristic who were used the printed learning material that they developed, but also about the theory of message learning design.

Cycle two was conducted over one meeting and implemented by one lecturer model that served to teach and to be a facilitator during the learning progresses. In the second cycle of learning application was done by modifying learning group performed.

#### *2.2.2. Plan*


ISBN: 978-602-74576-0-7

The planning stage in this cycle started with the repair and preparation of lesson plans that will be implemented based on the reflection of cycle one. Lesson plans in cycle two was focused on improving the content quality and design of printed learning materials that will be developed by the students.

Based on plan created in cycle two, student could work in a small group to make discussions, get feedbacks and suggestions related to components of content and design which they have developed individually. The differences of cycle one and cycle two were strategy for presentation. In cycle two, student explained the results of revision under group discussions. Student who present the material was student who was ready and did not have to originate from different groups. It was intended that each student felt ready and wanted to get general feedback from a large group (classical), would have the right and the opportunity. It also meant that more students have the opportunity to present their work.

#### *2.2.3. Do*

The implementation of cycle two carried out in accordance with planning that has created. Learning activities began with the lecturer was opening the activities. Lecturer explained learning goal in that meeting. Lecturer also gave a summary of previous meeting and revealed schedule for that meeting. After lecturer explanation, student work in small groups to carry out a discussion of the development that they have made individually.

In small group discussions, each student showed design that they have developed to the group, and then each member gave feedbacks and suggetions based on the basic theory of printed learning materials. After discussion in small groups, lecturer model invited students to present the blue print of printed learning materials that they were developing. Some advanced students present what they have developed to gain a more comprehensive input from classical groups. In classical presentation, lecturer model provided some input on design and content. Lecturer model also showed some printed learning materials ever developed by students of previous classes.

At the end of the learning activities, lecturer concluded and appreciated what models have been developed by the students. Class ends with lecturer gave motivation for students to be able to develop seriously a blue print of printed learning materials. Consequently, student could produce a good and qualified printed learning material for use in the learning process.

#### *2.2.4. See*

Stage reflection from cycle two carried out after implementation of cycle two finished. In the reflection phase, team discussed all the execution was implemented on implementation stage. Based on the observations, students understood how to develop a good printed learning materials, such us main mapping for book, student manual book, or modul. Student also could explain the correlation between media that they developed and theories that built the background of media. In addition, the ability of students to work in groups also increased. Every student tried to contribute in discussion process. They tried to give advice and input to what had been developed by his friends. Student who got input and advice feel realise to make revision of the design that they have developed for making printed learning materials which more qualified.

Based on discussions of lesson study team, it was decided to complete the lesson study cycle is only up to two cycles. This is because the purpose of the course is expected to be achieved and the implementation of lesson study time constraints, although when viewed in the quality of implementation, the implementation of the objectives have not been achieved perfectly and the results of the development of printed learning materials is not visible. In development carried out to reach the phase blue print instructional materials.

## 3. Result and Discussion

Based on what has been done in cycle one and two, it is known that an increase the quality of printed learning materials can be achieved when students are able to work together and give each other suggestions and opinions for improvement printed learning materials that they developed. Learning activities with collaborative learning strategies is one way that can be achieved. It is because of in collaborative learning, the student who has the better ability provide assistance to students who have less ability. Otherwise, the individual experiences in the group has a great contribution to enrich the knowledge of each other member.


ISBN: 978-602-74576-0-7

*Figure 1. Learning process in a small group discussion.*

Success in learning process, especially in the development of printed learning materials has characters that are supported by several reasons. First is student participation in learning process. Effective learning occurs when students are actively engaged in meaningful tasks and actively involved in interacting with the contents and the other students. Second is practice. In varying contexts, the practice can improve retention and the ability to apply new knowledge, skills, and attitudes. Third is individual difference. The learning method is said to be effective if it can overcome individual differences in terms of their personality, general talents, and preliminary knowledge of learners. Fourth is feedback. Feedback is needed to determine the learner's own position on the task at hand. Fifth, is a real context. The students most easily recall and apply knowledge that is represented in a real-world context. Sixth is social interaction. Tutor or a member of the peer group can provide a number of pedagogical support and social support.

Related to the conditions mentioned above, it is not surprising that collaborative learning can provide opportunities to lead to success in the learning practices in course the development of printed learning materials. Thought of the group can help to open up the discourse of individual thought.

*Figure 2. Students present their main mapping printed learning materials after getting input from small groups.*

Collaborative learning is conducted in a course of printed learning materials able to involve student participations and minimize the differences among the students. Students with high ability can help students with less ability. This is in line with the Slavin (1995) opinion that the behaviour of one or more members is a blessing for the group.

**References**

1. Arends, R. I. 1998. *Learning to teach*. Singapore: McGraw-Hill book Company
2. Heinich, R., Molenda, M., Russell, J. D., & Smaldino, S. E. 2002. *Instructional media and technology for learning*, 7th edition. New Jersey: Prentice Hall, Inc
3. Jacobs, G. M., Lee, G. S, & Ball, J. 1996. *Learning Cooperative Learning via Cooperative Learning: A Sourcebook of Lesson Plans for Teacher Education on Cooperative Learning*. Singapore: SEAMEO Regional Language Center
4. Slavin, R. E. 1995. *Cooperative learning*. Second edition. Boston: Allyn and Bacon


ISBN: 978-602-74576-0-7

# STRENGTHENING ON TEACHER EDUCATION: LEARNING TO TEACH FROM RESEARCH ON TEACHING

POERWANTI HADI PRATIWI

*Department of Sociological Education, Faculty of Social Science*
*Yogyakarta State University*

Abstract

The purpose of this study was to describe how pre-service teachers have thoughts about research on teaching. The participants of the study consisted of 6 pre-service teachers from Department of Sociological Education, Yogyakarta State University. The study used self-report and reflections; interviews; recording and transcribing of natural interactions from multiple case studies. The results revealed that the pre-service teachers who do research on teaching increased their knowledge about: preparing the devices learning; the role of communication between the teachers and students; and multiple teaching activities for diverse student populations. Research on teaching had a positive impact for strengthening on teacher education programs.

*Keyword: pre-service teacher, learning to teach, research on teaching*

## INTRODUCTION

Teachers are those persons who consciously direct the experiences and behavior of an individual so that education takes places. Teacher is professional person who conducts classes. In Undang-undang Republik Indonesia Nomor 14 Tahun 2005 said that "The teacher is a professional educator with the main task of educating, teaching, guiding, directing, coaching, assess, and evaluate student on early childhood education education, primary-education, and secondary education via formal education pathways. Teacher competencies include pedagogy competence, personality competence, social competence, and professional competence obtained through the education profession". Along with the progress of the times, teachers no longer just acting as a publisher of information but also must be able to act as a facilitator, motivator, and more counselors provide opportunities to students to find and cultivate their own information (Uno, 2010; Buchory, 2012). Thus, teacher skills must continue to be developed and not just limited to the mastery of teaching skills course.

The pattern of recruitment by university-based teacher education in Indonesia over the past three decades later is not using specific criteria. Everyone may register at the university-based teacher education become a student of teacher education (Pratiwi, 2007). In the needs assessment approach, the needs of society are assessed in terms of changes desirable for it and how it will be affected by emerging trends. From this needs assessment, the specifications for a teacher-education program are deduced. The assumption is that knowledge of the real and vital needs of society can be translated into the school curriculum for the pupils, and consequently into the teacher-education program. Preparing teachers for a changing world, teacher education must design programs that help prospective teachers to understand deeply a wide array of things about teaching and learning, social and cultural contexts, and be able to enact these understandings in complex classrooms serving increasingly diverse students. In addition, if prospective teachers are to succeed at this task, teacher education must design programs that transform the kinds of settings in which novices learn to teach and later become teacher. There are many ways of configuring the knowledge that teachers may need. In articulating the core concepts and skills that should be represented in a common curriculum for teacher education, especially pre-service teacher.

Many important reforms of teacher education that have since taken place owe much of the impetus to these initiatives. These have strengthened both the subject matter and pedagogical preparation teachers receive (and the content pedagogical preparation that joins the two), introduced professional development school (PDS) partnerships that have sometimes changed the nature of schooling along with training for teaching, and created sgnature pedagogies and

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

more authentic assessments for teacher education that link theory and practice and are beginning to change the ways in which teachers are taught (Darling-Hammond, 2006: 3). Teacher education reform efforts have problems and weaknesses that are similar to some professional development initiatives for in-service teachers. One of the most trenchant challenges relates to the preparation of teachers for diverse student populations in urban schools. Newly prepared teachers often work in urban, ethnically diverse districts but indicate that they feel unprepared to teach in these schools (Gordon, 2000). If pre-service and in-service teachers in urban, culturally diverse schools are to create and sustain effective schools and classrooms, they should be provided with opportunities for professional growth that focuses on learning and experimenting with effective culturally sensitive and contextualized instructional strategies. Irvine (2003: 73) has a proposal for change based on the following reconceptualized roles for teachers: (1) teachers as culturally responsive pedagogists, (2) teachers as systemic reformers, (3) teachers as members of caring communities, (4) teachers as reflective practitioners and researchers, (5) teachers as pedagogical-content specialists, and (6) teachers as antiracist educators.

Teachers learn just as students do: by studying, doing, and reflecting; by collaborating with other teachers; by looking closely at students and their work; and by sharing what they see. This kind of learning cannot occur either in university-based teacher education classrooms divorced from engagement in practice or in school classrooms divorced from knowledge about how to interpret practice. Good settings for teacher learning – in both university-based teacher education and schools – provide lots of opportunities for research and inquiry, for trying and testing, for talking about and evaluating the result of learning and teaching (Suwarna, 2005: 18). Evertson, Hawley, and Zlotnick (1985) also stated that the available research suggests that among students who become teachers, those enrolled in formal pre-service preparation programs are more likely to be effective than those who do not have such training. Moreover, almost all well planned and executed efforts within teacher preparation programs to teach students specific knowledge or skills seem to succeed, at least in the short run (Darling-Hammond, 2008: 337).

For just as long, there have also been debates about what kind of an activity teaching is and what knowledge and skills teachers need to have in order to teach well. Research on teaching began to focus on pedagogy as a social exchange among participants rather than simply the transmission of information from teacher to pupils. Research on teacher education shifted from teacher behavior to teachers' knowledge, learning, thinking and ideas. Researchers explored how teachers' attitudes, beliefs, and values changed (or not) over time (Cochran-Smith and Demers, 2008: 1010). The pre-service teachers' prior knowledge, experiences and beliefs are thought to act as filters, influencing what is taken from the knowledge, skills and experiences presented in their coursework or in schools (Bloomfield, 2010). Bloomfield claims that 'there is no single road to becoming a teacher, nor a single story of learning to teach' (p. 221). This study would to describe how pre-service teachers have thoughts about research on teaching. Research on teaching as an alternative approach to understanding and about how the experiences programs design for candidates cumulatively add up to a set of knowledge, skills, and dispositions that determine what should teachers actually do in the classroom.

## RESEARCH METHOD

The study sought the 'voices' of pre-service teachers to understand what was happening during the initial teacher education period. Yin (2003) recommends case studies as the preferred research approach when posing who, what, where, how or why questions; when the phenomenon involves 'real' life contemporary contexts; and when the events or behaviors are not being manipulated. These conditions matched the aim of our study. Neuman (2011: 42) described case study research as having "a detailed focus but tells a larger story". The multiple case study methodology was chosen because it offers 'rich' data and has several advantages in telling the story of the individual participants (micro-level) and its relationship to the larger process of learning to teach (macro-level) (Neuman, 2011). Additionally, given the literature review found learning to teach to be quite complex, dynamic and idiosyncratic, it makes sense to have more than one case study because a single case study would be too narrow a view. Based on the advantages and disadvantages of qualitative data collection methods described by Silverman (2006) this study used self-report and reflections; interviews;


ISBN: 978-602-74576-0-7

recording and transcribing of natural interactions from multiple case studies.

Six pre-service teachers from Department of Sociological Education, Yogyakarta State University volunteered to discuss their experiences of learning to teach. The six pre-service teachers were in the last semester of their four year Bachelor of Sociological Education course who research about classroom action research, experimental research, and qualitative research in Senior High School. The six pre-service teachers participated in three semi-structured interviews over a six week period. The semi-structured interviews were based on the personal, contextual and professional aspects identified in the literature review. Interviews were transcribed and data were open coded to form a biographical narrative (Neuman, 2011). This was followed by details of their experiences during their studies, and what they remembered as significant or insignificant learning experiences, and why. Finally, the pre-service teachers evaluated themselves as teachers, according to what knowledge and skills they believed they had learnt about teaching and their readiness for teaching. The biographical case narratives were returned to participants to authenticate their stories with opportunities to delete and edit as they saw fit. The narrative case studies were then cross-case analyzed using axial and selective coding to reduce the data and search for patterns and themes (Neuman, 2011).

## FINDINGS

Our analysis from the six pre-service teachers indicated that to strengthening on teacher education can doing from research on teaching. As a consequence, those most directly responsible for teacher education, both the academic research community at the university and the community of school-based teachers. We propose that research on teaching, which we define as systematic, makes accessible some of the expertise of teachers and provides both university and school communities with unique perspectives on teaching and learning for pre-service training programs. Specifically, the participants reported that their knowledge increased about: (a) the preparing the devices learning, particularly the syllabus, the plan of implementation learning, media of learning, learning methods, materials, and the assessment or learning; (b) role of communication between the teachers and students; and (c) multiple teaching activities for diverse student populations.

### Preparing The Devices Learning

In our study, the pre-service teachers' approaches or orientations to learning to teach influenced what was taken from their campus and practicum-based experiences (PPL) and what they had learnt about their profession from their research. Preparing the devices learning are as major experiences during their research. The devices include: the syllabus, the plan of implementation learning, media of learning, learning methods, materials, and the assessment or learning.

In their reflection, many participants discussed the importance of preparing the devices learning, especially action research and experimental research. Collectively, participants' comment reflected their perceptions of both effective and ineffective preparing the devices learning for teachers before teaching. For example, Dyah, a pre-service teacher doing classroom action research at SMAN 1 Pakem, expressed her awareness:

> *To me, the experiences exemplified what we have talked about preparing the devices learning and how it should be appeared in my scenario research planning. The mentor-teacher is excellent and work extremely well together. I was so impressed with the preparation the teacher takes for every lesson. We collaborated and planned daily, sometimes before or after school or whenever time permitted. We discuss any questions, comments, or concern we may have during planning. The mentor-teacher will stop by in the morning and double check with the general education teacher and her student before the day starts. She was well prepared and knowledgeable of the materials discussed in the lesson.*

After done the practicum-based experiences (PPL) at the school, Dyah continued research for thesis as requirements graduated from university. Dyah choose classroom action research with reason in order to better understand the pedagogic competence and professional competence of a teacher. During the research, Dyah get experience related with preparing the devices learning. She must be prepared the devices learning in accordance with the steps of the classroom action research and project-based learning methods that she has chosen. In her orientation, the personal aspects dominated the learning to teach experience with minimal influences from the university context or the professional skills and knowledge emphasized in the teacher education programs. She believed that class action research can improve personal skills and


ISBN: 978-602-74576-0-7

knowledge suited to teaching and being a 'good' teacher.

Other participants believed they had personal characteristics and skills suited to teaching based on successful experiences with children and people. They made decision to teach with some methods in experimental research. Putut explained:

> *I want to try some methods of learning in accordance with the theory that I got on campus. My purpose got the teaching experiences to become a professional teacher. Through experiment research in the school, I can discuss many things with the mentor-teacher particularly about preparing the devices learning. I must be prepared the devices learning in accordance with the methods of learning that I have been selected for the experimental class and the control class.*

Putut setting up classrooms that were creative and inviting, and relationships that were warm but respectful were paramount. During the research, Putut attributed his theoretical and specialized pedagogical knowledge and skills to a combination of university and practicum experiences. He believed this knowledge and skills had prepared his for continued learning about teaching by being reflective and developing strong theory and practice links through experimental research type applications and conferring with colleagues.

The pre-service teachers had willing to experiment and search for creative and practical ways of presenting content. They recognized their students had diverse backgrounds and as such, they valued developing a classroom learning environment conducive to students being able to take risks. Their content knowledge was largely attributed to their secondary schooling but they were expecting to do some relearning of content. By the end of their coursework the pre-service teachers demonstrating a transitional orientation were confident about their professional relationships, knowledge of learners and pedagogy. For example, Yuli had done qualitative research about how to prepared media of learning sociology at SMAN 3 Yogyakarta. During the research, she got knowledge how to implementation blog as media of learning sociology. Yuli, a pre-service Sociological Education teacher, stated:

> *You don't realize you've done so much till you look back. Like so many materials, activities, the text books and the theorists and assignments on the theorists. Because they are things you don't really think about consciously doing but knowing that is an actual theory then you can kind of adapt to it more and see what it actually does. I got the experiences of learning to teach after doing research at the school, especially how to prepare the devices learning. This is impossible if doing research outside of school.*

**The Role of Communication between Teachers and Students**

Communication is the driving force in any relationship or situation. Communication is an ongoing process of sending and receiving messages that enable humans to share knowledge, attitudes, and skills. Effective teaching depends on successful communication. When teachers and students interact, explicit communication is occurring. Participants also discussed positive interaction and effective communication between teachers and students as key factors that contribute to doing research at the school. For example, Heni, a pre-service teacher doing action research at SMAN 1 Jetis, shared:

> *I was greatly impressed by how well the students I observed worked together. I as pre-service teacher and the mentor-teacher interact very well together. Our communication occur effective on this research. I felt it was more important for teachers to be enthusiastic about teaching and have a strong desire to work with children. The teacher was seen as the primary knower and organizer of learning but communication skills also important on teaching and learning.*

Putut stated, "Mentor-teacher that helped my research told me that communication is the hardest thing". Dyah, another pre-service remarked, "Communication is like a marriage – lots of giving and lots of talking". Based on the research that has been done in the class, participants conclude that teachers will find that communicating effectively begins with the environment. Good teachers not only set the stage, but good teachers are good listeners. They listen to verbal and non-verbal messages. They know when a student desires to be heard. They know when and what signals to intercept; boredom, interest, agreement, and disagreement. They know when to show enthusiasm or concern, and when to use facial expressions or gestures. They know when to speak in a clear voice or when to use intonations. They know when to use humor and when to be serious. They know that knowledge is transmitted through effective communication and nurtured by the use of a variety of stimuli. Good communicators practice the use of non-


ISBN: 978-602-74576-0-7

verbal behaviors, they know that these behaviors can have a phenomenal effect on their communicating skills. Using a variety of communication can make the classroom an exciting place to learn.

**Multiple Teaching Activities for Diverse Student Populations**

When designing instructional plans for the research, six pre-service teachers from Department of Sociological Education, Yogyakarta State University initially used oral presentations to introduce research materials. During the research, pre-service teachers presented learning materials using PowerPoint slides because the combination of pictures and words can support comprehension diverse student populations in the classroom. Although the mentor-teachers recognized that technology-based teaching improves learning comprehension and facilitates teacher-student interaction during teaching, they did not integrate technology integration into every lesson. As they had previously wanted, the pre-service teachers began to perform multiple teaching activities, and also became concerned with many media of learning. To help students from diverse backgrounds build bridges between home and school, pre-service teachers need to know about the lives of the specific children they teach. Kamilla expressed the following during the research:

> *Students come from diverse backgrounds… I do not think technology-based teaching is appropriate in all sociology lessons, unless abstract concepts are taught. I am accustomed to presenting pictures with descriptive text, because there are students who have problems with vision.*

Based on observation of the teaching activities of pre-service teachers, the mentor-teachers admitted that the pre-service teachers must have multiple roles as teachers for diverse student populations. For example, the pre-service teachers made animated pictures, and were more proficient at performing Internet searches. On the classroom action research, a pre-service teacher to be a mentor-teacher for her student that doing project-based learning during the second and third cycles. Heni stated:

> *Sociology as a subject includes varied content knowledge. I cannot adopt the same method to teach all chapters of the textbook. My mentor thus recommended that I combine questions with television news or newspaper article to more closely interact with the diverse student populations*

**DISCUSSION**

Research on teaching in classrooms contributes for the pre-service teachers to understanding about learning to teach. During the research, pre-service teacher always accompanied and assisted by a mentor-teacher. Our results further indicate that pre-service teachers easily form collaborative relationships and obtain more support and feedback from their mentors. Guidance from mentors with respect to pedagogy knowledge and interactions with skilled peers enabled pre-service teachers to constantly practice the application of learning to teach. Similar to a study of Sundli (2007), research on teaching give the opportunities for pre-service teachers to observe the teaching activities of mentors and other pre-service teachers. The mentoring relationship was embraces essential components for pre-service teacher education contexts (Ambrosetti & Dekkers, 2010). According interview with participant, they get mentoring start from the beginning up to the end of the research in the school. When there are something not been properly linked with research on teaching done in the classroom, the mentor-teacher give advice and critics for the success of research. In the experimental research that doing by participant, the mentor-teacher provided feedback to the pre-service teachers regarding their teaching performance. Feedback is one of the most important factors. Using the critiques and feedback from the mentor-teacher, the pre-service teachers in the experimental research had an opportunity to understand both positive and problematic teaching activities and used that understanding when they revised their lesson plans.

Strieker, Gillis, & Zong (2013) suggest that research-based practices can improve pre-service middle school teachers' confidence, competence, and commitment to co-teaching in inclusive classrooms. Cavangh and Garvey (2012) reported "We also now believe that it is useful for pre-service teachers to have prior knowledge of the lesson topics and, if possible, to undertake the problem-solving activities themselves before they attend the school". Some form of post-lesson reflection is also crucial and the results of our study suggest that this reflection should be written down to maximize its benefits.

This study indicated that to strengthening on teacher education can doing from research on teaching. Based on the participant statements, they get advantages from their research in the classroom: preparing the devices learning, the role of


ISBN: 978-602-74576-0-7

communication between the teachers and students; and multiple teaching activities for diverse student populations. Research on teaching had done by participants in the classroom can strengthen on teacher education. The participants reported their experiences during studies, what they remembered as significant or insignificant learning experiences, and why. Finally, the pre-service teachers evaluated themselves as the pre-service teachers. With the researcher as a central actor in the experiences studied, practitioner research examines practice from the inside; that is, instead of research on teacher education by an outside party, it is research by teacher educators about their practice (Borko, Whitcomb, & Byrnes, 2008). All of the pre-service teachers who participated in this study successfully completed their research. They had broad goals for teaching; general pedagogical skills; some specific skills and curriculum knowledge; and a sense of being a newly qualified teacher with further learning anticipated.

**CONCLUSION**

The value of research on teaching for the pre-service teachers had been made by a number of learning to teach experiences. When more pre-service teachers have opportunities to research on teaching and when they practice in the classroom, it is implies a significant for strengthen in teacher preparation programs. This study provides a compelling summary of what happens when pre-service teachers conduct research on teaching as a regular part of their roles as teachers:

1. They can finish thesis report and learning to teach in classroom without spending large sums of money and time. They can observe closely and get information for research purposes
2. They collaborate with students and mentor-teachers to discuss many things. They become theorists, articulating their intentions, testing their assumptions, and finding connections with practice
3. They become more active professionally. Research on teaching make inquiry an integral part of the professional lives of teachers

There were several limitations to the study. The most significant limitation is that research participants are from one program study, particular Department of Sociological Education, Yogyakarta State University; which reduces external validity of the study. Secondly, the data sources collected in the study are all of participants' self-report and reflections. Future studies can be strengthened by collecting follow-up data during pre-service teacher teaching by means of interviews with students and mentor-teachers. Despite these limitations, we feel that the results of this investigation have had a positive impact for pre-service teachers, campus, schools, and other colleges of education who are strengthening on teacher education programs.

**References**


1. Ambosetti, A. & Dekkers, J. (2010). The Interconnectedness of the Roles of Mentors and Mentees in Pre-service Teacher Education Mentoring Relationships. *Australian Journal of Teacher Education*, 35 (6), 42 – 55. Retrieved from http://ro.ecu.edu.au/ajte/vol35/iss6/3; http://dx.doi.org/10.14221/ajte.2010v35n6.3
2. Bloomfield, D. (2010). Emotions and Getting by: A Pre-service Teacher Navigating Professional Experience. *Asia-Pacific Journal of Teacher Education*, 38(3), 221-234.
3. Borko, Whitcomb, & Byrnes. (2008). "Genres of Research in Teacher Education". in Cochran-Smith, Marilyn, et.al. (ed.) *Handbook of Research on Teacher Education: Enduring Questions in Changing Contexts. 3rd ed.* New York: Routledge. pp. 1017 – 1049.
4. Buchory. (2012). *Guru: Kunci Pendidikan Nasional*. Yogyakarta: Leutikaprio.
5. Cavanagh, M. & Garvey,T. (2012). A Professional Experience Learning Community for Pre-Service Secondary Mathematics Teachers. Australian Journal of Teacher Education, 37(12), 57-74. Retrieved from http://ro.ecu.edu.au/ajte ; http://dx.doi.org/10.14221/ajte.2012v37n12.4
6. Cochran-Smith, Marilyn and Demers, Kelly E. (2008). "How do We Know What We Know? Research and Teacher Education", in Cochran-Smith, Marilyn, et.al. (ed.) *Handbook of Research on Teacher Education: Enduring Questions in Changing Contexts. 3rd ed.* New York: Routledge. pp. 1009 – 1016.
7. Darling-Hammond, Linda. (2008). "The Case for University-Based Teacher Education", in Cochran-Smith, Marilyn, et.al. (ed.) *Handbook of Research on Teacher Education: Enduring Questions in Changing Contexts. 3rd ed.* New York: Routledge. pp. 333 – 346.
8. Darling-Hammond, L., & Bransford, J. (with LePage, P., Hammerness, K., & Duffy,H.). (2005). *Preparing Teachers for A Changing World: What Teachers Should Learn and Be Able to Do*. San Francisco: Jossey-Bass.



ISBN: 978-602-74576-0-7

9. Gordon, J. A. (2000). *The Color of Teaching*. New York: Routledge & Falmer.
10. Irvine, Jacqueline Jordan. (2003). *Educating Teachers for Diversity: Seeing with A Cultural Eye.* New York: Columbia University.
11. Neuman, W. (2011). *Social Research Methods: Qualitative and Quantitative Approaches (7th ed.).* Boston, MA: Allyn and Bacon.
12. Pratiwi, P.H. (2007). "Upaya Strategis Mencari Guru Ideal". *Surat Kabar Harian SOLOPOS.* 31 Oktober 2007.
13. Silverman, D. (2006). *Interpreting Qualitative Data (3rd Edition).* London, UK: Sage Publications.
14. Strieker, Gillis, & Zong. (2013). *Improving Pre-Service Middle School Teachers' Confidence, Competence, and Commitment to Co-Teaching in Inclusive Classrooms.* Retrieved from http://bagwell.kennesaw.edu/files/6414/2565/1228/strieker_teq.pdf
15. Suwarna, dkk. (2005). *Pengajaran Mikro: Pendekatan Praktis Menyiapkan Pendidik Profesional*. Yogyakarta: Tiara Wacana.
16. Sundli, L. (2007). Mentoring: A New mantra for education? *Teaching and Teacher Education,* 23, 201-214.
17. Undang-undang Republik Indonesia Nomor 14 Tahun 2005 tentang Guru dan Dosen.
18. Uno, Hamzah B. (2010). *Profesi Kependidikan: Problema, Solusi, dan Reformasi Pendidikan di Indonesia*. Jakarta: Bumi Aksara.
19. Yin, R. (2003). *Case Study Research: Design and Methods*. Thousand Oaks CA: Sage Publications.


ISBN: 978-602-74576-0-7

# REDESIGN TEACHER EDUCATION PROGRAM IN INDONESIA TO SUPPORT INCLUSIVE EDUCATION

PUJANINGSIH

*Graduate students in Educational Leadership, University of Northern Iowa*
*Cedar Falls, USA*

Abstract

This paper proposes the need for redesign teacher preparation program to provide adequate teaching competencies for quality improvement in inclusive education. The need for teaching competencies in inclusive classrooms is articulated by the government with an enormous number of in-service program for teachers in inclusive schools. This policy goes along with the increasing of enrollment number of students with special needs in Indonesia since the implementation of inclusive education is enacted by the government in 2001. However, teachers still face many obstacles to deal with diverse learners because they do not get enough support from special teachers. The situation might be worsening in the future if there is no curriculum adjustment in pre-service level. Furthermore, preparing the future teachers with appropriate skills and knowledge in their pre-service training would be a big agenda in order to provide equal access to quality in education. However, the implementation of inclusive education still has opponent and proponents that mostly related changes in terms of educational philosophy and practices. Furthermore, exploration of the philosophical perspective about inclusive education needs to explore more in order to define some changes that need to be covered. In addition to this, previous experiences in teacher preparation program in a different context also needed in order to develop themes that related to teacher's competencies and teacher preparation program to support inclusive education.

Discussion about inclusive education, teacher's competencies that are needed to support inclusive education and teacher preparation program about those changes in relation to the implementation of inclusive education will provide analytical reasons for the need for changes in education practices. The three major changes proposed in this paper that are needed to be considered in teacher education program will be discussed. In line with this, some possible education practices and characteristic of highly qualified teacher education program based on previous studies will be discussed to support those changes.

Keyword: Teacher education program, inclusive education

## 1. Introduction

The idea of teaching diverse learners started when Declaration of Human Rights was enacted in 1948. However, Dewey in 1915 already mentioned the same vision that "schools use stuff of reality to educate men and women intelligent about reality. Adjustment of conditions, not to them, a remaking of existing conditions, not a mere remaking of self and individual to fit into them" (Archambault, 1966, p. 23). In other words, the education system needs to adjust the way they provide access to students' learning rather than force the students to follow the education system. This is in line with the progress of educational beliefs of inclusion which the education is not only transfer of learning, but also a way to enable the students to build their knowledge from diverse experiences in their classroom environment and connect with their social life in order to adapt to their real life. Additionally, Miles and Singal (2010) define inclusive education as a commitment to revisiting the concept of the purpose of education because it is not only placing children with different needs in a regular classroom but also enabling them to engage and participate. Furthermore, all children can learn together about mini-society from their daily basis in the classroom.

This paper describes the foundation of inclusive education that related is to its history with some challenges that need changes in teachers preparation program. The first topic will discuss the definition, history, both negative and positive perspectives about inclusive education and barriers to inclusive education that change the paradigm of teaching. In the second topic, the section will discuss the need for changes in education in order to minimize the barriers. The changes are related to teaching practice for all students that end up with some suggestion for teacher preparation program will be discussed in the third section. Previous philosophers and relevant studies offer perspectives; ideas will be discussed deeper to depict some positive values that needed in the pre-services program. Furthermore, it will lead to some alternatives approaches as an alternatives ways in order to prepare future teacher with the high quality of teaching skills with global vision to educate all students.

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

## 2. Inclusive Education

### 2.1. *Definition*

The definition of inclusive educations was stated by Ainscow (2005) which has four element: a) inclusion is a never ending process to search for the best way to respond to diversity, b) inclusion is concerned with the identification and removal of barriers, c) inclusion is about the presence, participation and achievement of all students, and d) inclusion involves a particular emphasis on those groups of learners who may be at risk of marginalization, exclusion or underachievement (Ainscow, 2005, pp. 118–119). In line with this, "inclusion is not just about disability issue and goes far beyond students differ from one another: race, class, gender, ethnicity, family background, sexual orientation, language, abilities, size, religion, and on and on" (Sapon-Shevin, 2007, p. 10). Based on some definitions that have been discussed, inclusion is a kind of humanization in diverse culture where all differences are well-accepted and appreciated to build a peaceful global community. In the long term, inclusive society that lives peacefully in diversity is something that is in line with Leibnitz idea said "that society may be reformed, when I see how much education may be reformed" (Ulich, 1954, p. 582).

In the classroom where so many students with different abilities and different capacities of learning are interacting, they have more opportunities to learn from each other and build more positive values through their daily interaction. When some students struggle to read, at the same time, other friends have opportunities to help them, so they have experiences caring and supporting each other. Dewey saw this situation as an ideal of community where differences are accepted and appreciated as a part of the establishment of mutual interaction (Archambault, 1966). The way teachers provide feedback and support students' engagement in the learning process will create a moral atmosphere that builds students' personal capacity. In line with this, Whitehead proposed the golden role of education that students could actively build their learning here and now when they practice the knowledge that their teacher taught them. In a diverse classroom, students learn virtue far beyond the subject matter by practicing and implementing positive values through daily interaction with peers when they support each other, communicate, accept differences and build meaningful interaction in their classroom community.

### 2.2. *The History of Inclusive Education*

Sections, The movement of inclusive education is related to a momentum that differs between countries. However, most of them represent Freire's opinion about 'culture of silence.' The changing paradigm from segregation model to inclusive model happened because the majority group listened to the oppressed about their needs and searched for the way to bridging the gap (Freire, 1970) between the minority groups and the majority groups either in the U.S. or Europe. However, in the developing countries, inclusive education became a massive reform after the Salamanca Statement was signed in 1994.

The movement of special education in the U.S. started after Civil Right Movement and the impact of Brown v Board of Education. This case was about discrimination of African American students who enrolled in regular school in 1954. Equal rights for people of color to enroll in public school was approved by this case. This case expanded to equal access for children with disability to enroll in public education. Then Section 504 of the Vocational Rehabilitation Act was signed by the U.S. government in 1973 and was followed by Education for Handicapped Act (PL 94-142) authorized by the congress in 1975 to ensure free appropriate public education for children with special needs (Friend & Bursuck, 2006). At this passage, parents have the right to get consent for their children's educational services and due process if they are dissatisfied with the educational services conducted by schools. This law was reauthorized to Individuals with Disabilities Education Act (IDEA) in 1990. There are six principles of IDEA to ensure the appropriate educational services for children with special needs a) zero reject, b) nondiscriminatory evaluation, c) appropriate education, d) least restrictive environment, e) parent and student participation, and f) procedural due process (Turnbull, Turnbull, & Wehmeyer, 2010). All states in the U.S use these six basic principles as guidance to provide services. The changing name in IDEA from handicapped and disabled into people with disability related to Warnock (1979) suggestion in the UK.

The reflection of segregation approached in Europe, specifically in the UK started after the Warnock Report in 1978. This report is one of the most valuable moments in special needs education in the UK based on its recommendation about inclusive education that was followed by Educational Act in


ISBN: 978-602-74576-0-7

1981. This law gives support not only for parental rights of children with special needs but also and education support system for students with special needs in general.

The idea of inclusive education for most developing countries grew fast after the Salamanca Statement was signed in 1994. Ninety-two governments and twenty-five international organizations agreed on inclusion framework that all students regardless of their physical, emotional, social, and economic barriers have equal access to school (UNESCO, 1994). In Indonesia, the enrollment number of students with a disability in the regular classroom is increasing. However, the support system is not ready yet because there is a lack of awareness of school staff that leads to negative attitudes. The special teachers need improvement regarding their quality of teaching. This situation is related to some barriers that will be discussed in the next section.

### 2.3. *Proponents and Opponents Argument of Inclusive Education*

Inclusive education leads to some opponent and proponent arguments about where the most meaningful and beneficial place for students with disabilities is. There are four proponent ideas regarding inclusive education for students with special needs proposed by Friend and Bursuck (2006). Students with special needs must a) get equal access to regular education, and avoid negative stigmatizing from peer and similar instruction with peer, b) learn appropriate social skills from peer and their peer also learn to accept diversity in proper way, c) get access to adequate learning resources, and d) generalize easily in real context. Furthermore, Morris (1990 cited in Lipsky & Gartner, 1997) mentioned that people will not learn to accept people with disabilities if they are segregated. Daily interaction among students with disability with other students will create mutual understanding, so they can learn from each other and develop an inclusive society in the long term. However, not all students with special needs would benefit in a regular setting. IDEA also mentioned special procedures for students with special needs changing placement from regular school to segregated school.

> In general.--To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (Part B, Section 612 (5) (A)

Many children with severe disability need specific treatment and intervention that sometimes is not well-supported in public school because these children need to be focused on learning functional skills with less academic materials. In line with this, Friend and Bursuck (2006) mentioned the need for alternative places for students who are not benefitting from the regular classroom. The placement of children with severe disabilities could not be generalized because it needs to be determined on a case by case basis. Rachel Holland v Sacramento School District (1993/1994) was about an eleven-year-old girl, with an IQ score of 44. The placement in her IEP was in the restricted classroom. However, her parents saw that she could develop interaction with other children when she was motivated and imitated good behavior from her peers in the general classroom. The court approved it and decided that Rachel needs to be placed in a regular classroom because Rachel could gain non-academic benefits from peers.

### 2.4. *The Barriers of Inclusive Education*

As a major reform, the possibility to make inclusive education come true needs a hard effort from policy makers, higher institutions, media, parents and community members to be aware and then provide appropriate and equal access for diverse learners in education. Based on the implementation of inclusive education in many places, there are some barriers and constraints.

There are nine barriers in implementing of inclusive education based on the list that launched by UNESCO: a) attitudes, b) physical barriers, c) curriculum, d) teacher, e) language and communication, f) socio-economic factor, g) funding, and h) organization and education system. All the barriers are connected to each other. Attitudes of the teachers, policy makers, and society are found as the


ISBN: 978-602-74576-0-7

major barriers to inclusive education because it would be related to the willingness to solve other barriers. Research conducted by Pivik, McComas, & Laflamme (2002) revealed that attitude barriers were found at schools in two ways, intentional and unintentional. Isolation and bullying are the examples of negative attitudes based on students with disabilities and parents of children with disability. This situation might happen if the welcoming environment is not established yet, so the students with special needs feel isolated from their peers. In this situation, schools have opportunities to build awareness and acceptance of diversity and to build positive atmosphere among teachers, students, and staffs. Negative attitudes that unintentionally came from teachers who lack awareness, lack understanding, and lack knowledge. In line with this, Ainscow (2005) stated that "many of the barriers experienced by learners arise from existing ways of thinking. Consequently, strategies for developing inclusive practices have to involve interruptions to thinking, in order to encourage ''insiders'' to explore overlooked possibilities for moving practice forward" (pp. 121–122). Stereotypes from community members that students with special needs will give negative impacts for their peers also raise up and could lead to some rejection for some children with special needs, especially for they who have behavior problems and severe disability. (Avramidis, Bayliss, & Burden, 2000). However, it was found that students with a severe disability will not negatively affect their classmates' academic performance (McGregor & Vogelsberg, 1998).

Lack of funding is found as one of the key barriers to inclusion based on a qualitative study conducted by Glazzard (2011). Financial barriers might come from a lack of additional funding to provide additional staff to assist, provide specific equipment to support learning and adjust school environment to be more accessible for students' needs. Inadequate funding of school districts might prevent students with special needs from achieving education services satisfactorily. There are some cases related to this issue; a girl with a wheelchair cannot access the toilet in her school because the door is too small and there is no ramp, so it's difficult to go to the toilet by herself. Another case is students with special needs who need an adult assistant that require extra expenses that need to be covered by schools or parents.

The fixed curriculums that do not give space to be more flexible for adaptation and adjustment is also a barrier towards inclusion. Students with special needs have different ways and a different pace of learning that need curriculum adjustment. Some of them have different levels of learning that need modification. In the U.S., this problem is already solved with clear policies: Individualized Educational Program (IEP) that is mentioned in the IDEA. However, the No Child Left Behind (NCLB) Act as a part of the educational system with rigorous national tests invites many controversies because a teacher seems to be focused on teaching how to deal with the test, narrowing the curriculum (Klein, 2007). Similarly, national exams in Indonesia seems to lessen the aims of education because most of the teachers focus on the teaching materials so their student will gain a higher score and the school reputation will increase. This situation gives a negative impact for students with disabilities because many schools wouldn't allow them to reduce the accumulative score of National exam in their school by excluding them. Minimum of guidance from the government worsen the situations because each school decides their own services for their students with special needs which could lead to improper services. This problem related to the need for specific policies and rules which mandate that students with special needs have equal access to appropriate public educational services.

Those barriers also create creativity of each school in order to seek alternative solutions. A lesson from Bamako as the poorest district in Mali proves that they can support inclusive education even though they had a lack of funding because the community supported building a school and paying teacher's salaries (Stubb, 2000). The positive support from the villagers solved their barriers providing education in Bamako. The financial barriers might be solve because there was a change that happened in the society. The community felt the importance of education for their children, so they work together with the school. In other barriers, the solution would be similar as in this case study. The reason for teachers' negative attitudes is reasonable because they were not well-prepared. However, teachers' thinking plays significant roles of how they provide opportunities for learning for all children (Florian & Linklater, 2010) and how they will be more welcome, aware and supportive of inclusive education which is a big agenda for many countries to ensure that all students learn. In order to seek solutions to solve this problem, exploring the changes in educational practice will give a deeper understanding to improve more welcoming teachers for inclusive education.


ISBN: 978-602-74576-0-7

### 2.5. *Changes Needed for Inclusive Education*

The implementation of inclusive education requires many changes in educational practices that will improve its process for each school, teachers, and students. The presence of diverse learners such as students with special needs in regular classrooms will promote some changes to ensure their participation in learning the process in meaningful ways, from transferring knowledge toward building knowledge. Similarly, Mittler (2012) stated that "Inclusion is not placing special needs student in mainstreaming education; it is about changing school to be responsible for the needs of all students (p.ii)."

The changes of inclusive education could be found on the small scale which related to how teachers play their role as actors in their classroom and implement the idea of inclusive education into their teaching practices. Elmore (1996) stated that in small scale, fundamental changes in "core educational practices" is needed. This core is defined as:

> "How teachers understand the nature of knowledge and the student's role in learning, and how these ideas about knowledge and learning are manifested in teaching and classwork. The 'core' also includes structural arrangements of schools, such as the physical layout of classrooms, student grouping practices, teachers' responsibilities for groups of students, and relations among teachers in their work with students, as well as processes for assessing student learning and communicating it to students, teachers, parents, administrators, and other interested parties (p.2)."

In line with Elmore's statement, the role of teachers is changing along with a shifting paradigm from teacher centered towards child-centered, individual teaching to collaborative teaching, and from offering services to providing supports (Ferguson, 2008) that need long-life learning.

#### 2.5.1. Child-Centered

Teaching in the classroom when students have similarities in learning abilities, so the teacher could prepare one-size-fits-all is a kind of situation that has almost disappeared nowadays in developed countries. Even though, a long time ago Emerson (Ulich, 1954) already mentioned about learner-centered by saying "Let them create their own world. Change the usual education from outside into an education from inside" (p. 577). Teacher-centered was common in homogeneous classes. This situation is shifting to child-centered when diverse learners are placed in the classroom. The need for adjustment in the learning process would be an obligation if the teacher wants every student to learn unless they denied the presence of students who cannot follow their style of teaching.

In inclusive education, different kind of students' needs, interests, strengths and cultural backgrounds acquire an opportunity for teachers to create a positive atmosphere of learning. It is because the teachers have to focus on the needs of the child and seek the commonalities to prepare the lessons and provide adjustment for the students who have different needs. In other words, a teacher is a person who is responsible for transferring the materials shifting to teachers that provide opportunities for all students to build their own knowledge. In line with this, Ferguson (1995) stated that the role of teachers as decision-makers for the materials that should be learned by their students move toward approaches that give an opportunity for the learner to decide and create the content that they need to explore and learn. In this situation, teachers need to provide richer experiences and valuable opportunities that enable students to build their own knowledge and understanding as a kind of good teaching practices for all students to achieve their success.

"We can think about ways of teaching and learning that recognize that we all have gifts and that the challenge of good teaching is to make those gift visible, rather than to sort people into the 'successful' and the 'unsuccessful.'" (Sapon-Shevin, 2007, p. 72).

In line with this, teaching practices which focus on the learning process in each student require some competencies. "Teaching that aims at deep learning…requires sophisticated judgment of how and what students are learning, what gaps in their understanding need to be addressed, what experiences will allow them to connect what they know to what they need to know, and what instructional adaptations can ensure that they reach common goals."(Darling-Hammond, 2006, p. 10). In order to determine the best way to meet different needs of each student, teachers need to be flexible for their teaching methods. (Ferguson, 2008) mentioned about three type of differentiated instructions (content, processes, and product) that can be combined with the universal design of curriculum. For example, girls in 4rd grade with reading difficulties could hear the test through the recorder and answer it verbally instead of writing it down while another friend uses paper and test in


ISBN: 978-602-74576-0-7

their evaluation. She could perform better when the teacher provides that accommodation on her exams.

The interaction between teacher and students and among peers in the inclusive classroom when the focus is how student's learning create the willingness to support each other. The reason is when students have a different pace of learning, this would be the best context to learn empathy by using peer tutor strategy. In line with this, (Archambault, 1966) stated the idea of Dewey about how interaction between teachers and students and among students could build a supportive learning environment that enables them to learn about moral.

"The moral atmosphere of the classroom, the encouragement of curiosity and questioning, the relations among students and with the teacher are to be considered, not as irrelevant to the curriculum, but as the very basis of the moral and intellectual learning which goes on in the school when he or we deliberately plan it or not." (p.102)

2.5.2. Collaborative teamwork.

The structured situation with the homogeneous type of students would change to be more flexible to adjust to student different ways of learning required more hard work as a team. Teachers previously work alone from preparation, implementation and evaluation programs in their classroom, but in an inclusive classroom, that would be overwhelmed and burden teachers' workload.

The need to collaborate with special teachers and other team members is needed as shared responsibility to decide their lesson plan. (Darling-Hammond, 1992) mentioned about the need for teachers to work together to provide a wide range of learning opportunities for students. The situation in Indonesia when the government invested their budget in in-service training for the last ten years but the problem of teachers' with the lack of skills and feel burnout is always found in many places. The similar situation happened in the U.S. in the early 90s. Schumm, J. S., & Vaughn, S. (1995) tried to understand the reason for teachers have problems to provide accommodations for students with special needs. They found that teachers at that time did not get enough support while it was time-consuming and difficult to implement different accommodation for each student with special needs. In Israel, a similar situation was found when regular teachers burn out because they did not get enough support from the organizational system at schools when they have problems dealing with students with special needs in their class (Talmor, Reiter, & Feigin, 2005). At this point, professional development for teachers is suggested to be integrated with working routines of the school (Sugai & Horner, 2009), focus on not only how teachers support student with special needs but also the whole class to learn together (Schumm & Vaughn, 1995) and they will get support through school system. In another word, moving from traditional ways of in-service training to more embedded training at schools could facilitate the real problems that face by the teachers so they can implement directly supported by another teacher as a team that focused on how all students can participate and engage in the classroom.

Fuchs, Fuchs, and Bishop (1992) revealed that 'participative decision' is needed to determine specialized learning adaptation for students. General education teachers are not only making the suggestion has been made by special education teachers, but they shared their thought about the suitable adaptation for each student. (Minke, Bear, Deemer, & Griffin, 1996) found that teacher articulate the need for communication and cooperation for successful collaboration among team members in a co-teaching model. Co-teaching model was found beneficial to the professional development of teachers and students in both social and academic area (Scruggs, Mastropieri, and McDuffie, 2007).

2.5.3. Life-long Learning Process

The diversity of students needs learning adjustment that never end because there are no particular methods or strategies that will be suitable for all kids. The ability of teachers to reflect their own practices and develop the new approach of teaching practice is kind of professional development as a lifelong learning process. Teachers can learn from the way how they teach to ensure all students to learn (Day, 1997). However, the willingness to make a better of teaching process through reflection might be not the case if there is a lack commitment of teachers and no school support. The need of conducive school climate for critical inquiry and opportunities for professional conversation supported by school policy will support professional development among teachers (Darling-Hammond & McLaughlin, 1995). Additionally, teachers also could improve their teaching practices through action research (Pring,


ISBN: 978-602-74576-0-7

2004). Day (1997) mentioned about dialogical relationships between theories and practices which enriching teachers as a person. However, Day (1997) argue that few numbers of teachers have limited time to reflect and conduct a research, so he suggested the need for 'sustainable flexibility' in a cooperative partnership between schools, teachers and universities.

Three changes in educational practices that will support the implementation of inclusive education focused on teachers because they will implement it in their classroom. Elias Avramidis & Brahm Norwich (2002) also mentioned that teachers are believed to be a key factor to implement inclusive education; therefore, their positive attitudes play a decisive role in supporting this educational change successfully (Anke de Boer et.al, 2011). In another word, improvement of future teacher capacity will play a significant role in the long term to enhance and support the quality of inclusive education implementation in general.

**3. Teacher Preparation Program**

In order to support the implementation of inclusive education, teacher training program in the university is deemed essential to fulfilling the demand of teachers' competency. In line with this idea, general education pre-service teachers find it is necessary for them to know how to meet the needs of a myriad diversities in terms of students with different learning styles and abilities (Taylor & Ringlaben, 2012).

There is a big question for who will be able to provide appropriate academic services for diverse learners with high requirement of ability. Comenius (Ulich, 1954) mentioned that a teacher must be "selected, erudite, and moral person" (p.342). Criteria for selection who will be a good teacher have studied previously. The U.S. Department of Education in 2002 stated that verbal ability and content knowledge are the most important of highly qualified teachers (Darling-Hammond, 2006). However, if higher institutions focused on these specific criteria with the high qualification of people so the number of teachers will be limited and could fulfill the demand quantitatively. It is because smart people might be want to choose another profession that in line with their priorities instead of to be a teacher. Focusing on the number of people who will be a teacher need to be balanced with the quality of the teacher training. Darling-Hammond (2006) stated that "Inadequate of preparation increase teacher attrition, which exacerbates the revolving door that contributes to teacher shortages" (p. 14). Providing high quality of teacher training will be discussed more in order to answer the challenges of teachers demand to support inclusive education.

The importance of teacher training for the purpose of improving attitudes towards inclusive education has been emphasized by previous literature. If pre-service teachers leave teacher preparation institutions with negative attitudes, then those attitudes are difficult to change (Murphy, 1996 as cited in Forlin, Sharma, & Loreman, 2007). Additionally, teacher preparation programs can provide students with opportunities to improves teacher candidates' knowledge and attitudes (Forlin, Loreman, Sharma, & Earle, 2009) about adapting their teaching (Taylor & Ringlaben, 2012) and differentiate their lessons to meet the needs of a variety of disabilities (Kozleski, Pugach, & Yinger, 2002)Furthermore, shaping positive attitudes toward students with disabilities is an important aspect of the education of pre-service teachers (Sze, 2009; Sharma, Forlin, & Loreman, 2008). While pre-service teacher education is seemingly the best way to support positive attitudes toward inclusion, studies are investigating the process of integrated fieldwork and the content, of course, syllabi remain limited in number and scope. Taylor & Ringlaben, (2012) emphasize the need to measure how universities prepare pre-service teachers to meet the demands of teaching students with disabilities in their future classrooms.

In Indonesia, the majority of teacher preparation programs do not include inclusive education materials in their curriculum although the inclusive education policy has been implemented. Consequently, pre-service teacher program has provided insufficient knowledge and experiences to their students. A study conducted by (Ahsan, Sharma, & Deppeler, 2012) shows that lack of support from leaders in teacher preparation program in terms of inclusive education becomes a major barrier to teacher education reform. In general, the problem of in-service training has not only been faced by developing countries but also by developed countries. Forlin et al., (2009) mention that the biggest current challenges for teacher preparation program are when the length of study is still the same, but there is an increasing growth in the scope of curricula that have to be covered. With regard to solutions towards this situation, Harvey, Yssel, Bauserman, & Merbler (2010) suggest that it is the priority to have time to develop initiatives, collaboration among faculty member to provide more


ISBN: 978-602-74576-0-7

faculty awareness of special education, and offer more experiences with special education trough giving courses across disciplines or majors. However, teacher education needs to define what the goal of "high quality" teacher education is by knowing what we want teachers to be able to do in classrooms and schools (Townsend, 2007). In order to develop appropriate teacher preparation program, the concept of teacher competence to support inclusive education need to explore.

.

### 3.1. *Teacher Competence for Inclusive Education*

A study conducted by Darling-Hammond (2006) in seven different in-service teacher training program revealed commonalities that represent about the quality of teacher training that have clear vision about good teaching that infused in coursework and clinical experiences, clear standard to implement and evaluate students' knowledges and performances, the content of curriculum taught in the context of practice, strong relationship between school and university, the use of case study and portfolio to learn a real problem of practice. The result of this study broadly speaking about the continuity of the vision and the implementation of teacher training which focus on collaboration and integration between coursework and clinical experiences. However, in order to know when teacher training already achieves the goal, so teacher's competence that needed in the inclusive classroom need to be defined.

Focusing on teacher competence that needs to achieve on teacher preparation as a goal will provide a clear explanation how to obtain it. Those are three teachers' competence that proposed by previous philosophers and strengthen by studies conducted some researchers. The first competence is positive attitudes as proposed by Emerson with respect to the child that will present from the way teachers communicating with learners (Hollins, 1993) based on their understanding of inclusion and diversity (Loreman, 2010). The second competence is related to teachers' knowledge as proposed by Darling-Hammond (2006). The third competency is collaboration skills that related to Pestalozzi (Ulich, 1954) idea of the human relationship to create supportive context (Hollin, 1993) through collaboration with stakeholders (Loreman, 2010).

#### 3.1.1 Positive attitudes and beliefs of teacher-students

Teacher teach who they are. As a teacher, they can transfer values more than teaching materials that they taught deliberately. In line with this, Emerson (Ulich, 1954, p. 586) stated that "respect the child and yourself." When teachers appreciate to what and how students' differs from each other, at the same time they transfer same value to the students about how they appreciate themselves. The way teachers behave, smile, the response the child sent many messages to students about who they are. It is not surprising when each student could memorize who is the most teachers that they never forget. It could be positive either negative values as mentioned in a poster that hangs in the office of Ministry of Education in Pakistan.

> "I've come to the frightening conclusion that I am the decisive element in the classroom. It's my personal approach that creates the climate. It's my daily mood that makes the weather. As a teacher, I have tremendous power to make a child's life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or honor, hurt or heal. In all situations, it is my response that decides whether a crisis will be escalated or de-escalated and a child humanized or dehumanized."
>
> Poster - Ministry of Education – Pakistan (EENET Asia Newsletter, 2005)

The way teachers behave would give powerful impact towards students' life. It is believed that what teachers' think will be related to their attitude so when they know about different ways of learning of their students so it would be easier to accept them and respect them. How to develop a positive attitude among teacher-students would be one of the targets in teacher training.

Florian & Linklater (2010) revealed that student-teachers who took a course of Learning without Limit noticed their role as an educator will be the one who responsible for creating a learning environment that enables all students can learn, rather than focus on learners' capacity. A similar study conducted by Forlin, Sharma, & Loreman (2007) found that disability education has influence teachers' attitude. Applied experience also believed could enhance teacher-student awareness of people with disability (Forlin & Chambers, 2011a). Furthermore, another benefit also revealed Sharma, Forlin, & Loreman (2008) that it can increase awareness towards people with disabilities and more welcome for diversity in their class. When teachers


ISBN: 978-602-74576-0-7

acknowledge how students learn they would become more aware when the students' responses differently during the learning process and be flexible to select variety tools to support their learning. Comenius also stated similar thought that "the teacher should explore and apply all means and ways to making the acquisition of knowledge possible" (p: 345). Knowledge how learners can learn is one of the requirements of one of three general skill for all teachers (Darling-Hammond & Bransford, 2005). As stated by Emerson, respect the child would be one of the secrets of education. Positive attitudes and belief is found related to direct interaction with people with disabilities (Forlin & Chambers, 2011b). Studies conducted by Gokdere (2012) supported the need for special education in their course because it was claimed related to teachers' awareness and positive attitudes and behavior towards the student with disabilities. As mentioned by Darling-Hammond (2006) about the need of knowledge about how students are learning need to be supported by the integration of coursework and clinical experiences. Coursework not only discusses the theoretical background but also close with the context in the real classroom.

3.1.2 Teacher's knowledge

Darling-Hammond & Bransford (2005) proposed professional knowledge for teaching so teachers could decide what to teach and how. In order to do that, the teacher needs to understand how to develop curricular, how to teach subject matter, how to assess learning and how to manage a classroom that enables all students to learn. As a result, teacher-students could organize the materials that they are going to teach and define specific skill as the target of each lesson, manage the learning process and assess students' learning. In line with this, teachers-students need a deep understanding of subject matter and the meaning of its content for the student so they can develop some adaptation or adjustment if they have students who are gifted or students who need more functional skills. Furthermore, skills to assess learning achievement for each goal would provide information for teachers whether some students already pass their goals and need to learn new materials or some students who need additional exercises and explanations in different ways to achieve their goals. Darling-Hammond & Bransford (2005) mentioned this skill as one of skill that requires for all teachers that focus on assessment and classroom environments. Additionally, one course in special education may not be sufficient to address all of the skills and competencies required to educate students with disabilities in the general education classroom; it may be an important step in preparing pre-service teacher (Allday, Neilsen-Gatti, & Hudson, 2013).

In order to enhance teacher-students' knowledge, case pedagogies is found meaningful to support their skill to be the creator of the curriculum in their class because they can understand the real issues that happened on a daily basis so it will enable teacher-students to feel the real situation before they do practical experiences. Cases present the real situation of dilemmas and problems that may be similar to another context that might appear in the student's future experiences (Wade, 2000). By analyzing complex teaching situations and by articulating, listening to, and possibly challenging a variety of interpretations presented during case discussions, students can become creator (Harrington & Garrison, 1992).

Clinical experience also provides could provide important influences on later practice for both general and special education teachers (Kozleski et al., 2002). Practical experiences for teacher-students need to be placed in positive and supportive environments so it will provide opportunities for teacher-students to experience success with reflection. In line with this, during the implementation of teacher training, Etscheidt et al. (2011) recommend that reflective activities should be covered throughout the preservice program deliberately. Reflective activities allowed insightful of teacher-students about their own learning and give feedback about what was useful, what could be more useful (Darling-Hammond & Bransford, 2005). The reflective process during in-service training would be needed to continue when teacher-students work as a teacher in order to improve their professionalism. This would long life learning process, as mentioned by Dewey (1915) that "to the educator for whom the problems of democracy are at all real, the vital necessity appears to be that of making the connection between the child and his environment as complete and intelligent as possible, both for the welfare of the child and for the sake of the community." (p.289) represent that teacher is not only teaching the facts that happen at the moment but also the students' long life learning skills with different situations and challenges. To prepare teacher in this way is kind of rewarding job because what will happen in the classroom and in the society will depend on how future teachers are prepared.


ISBN: 978-602-74576-0-7

3.1.3 Collaboration skills

Pestalozzi (Ulich, 1954) stated that "You do not live for yourself alone. Therefore Nature forms you also for living within human relationship" (p. 484). Based on this statement, interaction during learning process could build a relationship between teacher and students and among students in order to achieve meaningful skills for students to be a part of the community. Darling-Hammond (2006) mentioned that students need support to learn how they confront with their own belief and experiences dealing with different opinion. Discussion with different perspectives provides real experience for appreciation and appropriate way of communication to deal with different perspectives.

As mentioned earlier that providing educational services for students with special needs need a support system and collaborative skills as teamwork. The way teacher training provide this experience through group discussion and teamwork during field experiences will enhance collaborative skills among teacher-students. Harvey, Yssel, Bauserman, & Merbler (2010) found that course work and field experiences across departmental based on a survey in 50 states in the U.S. Providing enough support for students through dialogue during coursework and supporting mentor teacher during the field study. Collaboration between university and school to provide support for new teachers into smooth transition is needed to enhance their quality of teaching skills become effective (Forlin & Chambers, 2011a). The need of partnership between teacher education program with a school that works together as part of continuity between preparation program into practice also stated by (Darling-Hammond & Bransford, 2005). Better teachers and better system stated by (Darling-Hammond & Bransford, 2005) that represent about how education reform in teacher preparation program walk side by side with school reform because it will be useless if the teacher-students learned something that they will not implement because the school goes in the different directions.

Those three teachers' competence will enable all students to learn based on their needs. When teachers are welcoming for diversity and transfer the positive values through their daily interaction with students, the positive atmosphere for learning in the classroom will be established for all students far beyond the learning materials. The skillful teaching knowledge about what need to teach and how to deliver it based on the student's need will enhance students learning appropriately. Then, in order to provide adequate educational services for diverse learners, teachers need support system with strong collaboration efforts from themselves, school staff and stakeholders. In another word, providing teacher that can support inclusive education would be in line with how to develop good quality of teacher for all students.

**3.2. *Redesign Teacher Education Program***

The need for redesign of teacher education programs is based on the limitation of teachers' competence to deal with diverse learners at schools whether it related to negative belief or lack of teaching skills (de Boer et al., 2011; DeSimone & Parmar, 2006; Hornstra, Denessen, Bakker, Bergh, & Voeten, 2010). In order to fulfill the need of highly qualified teachers, the government supported the initiative of the redesign programs by providing external funding, but it still has some concern. In 2007, a competitive grant program for five years was known as 325T in 40 states was introduced in order to develop collaborative programs in the higher education. A study of the impact of this grant found that collaboration between special and general education is increased. However, there is a limited initiative (Little, Sobel, McCray, & Wang, 2015). They revealed resistance among faculty members as a hindrance for change and collaboration. Moreover, they articulated the needs of active leadership support in order to increase collegial support and participation. It seems that external support is not enough, so shared vision as internal strength would be one promising sustainability of collaborative works in teacher education programs across departments. In line with this, redesigning teacher education programs to prepare qualified teachers to meet the needs of students with special needs is not easy (Kozleski et al., 2002) without shared vision and strong internal commitment from the leaders and the faculty members. That vision and commitment will represent the policies and teaching practices in teacher education programs. Darling-Hammond (2000) conducted case studies


ISBN: 978-602-74576-0-7

of high reputation of pre-service programs and found commonalities among them, as follows:

a. A common, clear vision of good teaching that is apparent in all course work and clinical experiences;
b. well-defined standards of practice that are used to guide and evaluate coursework and clinical work;
c. a curriculum grounded in and substantial knowledge of child and adolescent development, learning theory, cognition, motivation, and subject matter pedagogy, taught in the context of practice;
d. extended clinical experiences (at least 30 weeks) which are carefully chosen to support the ideas and practices presented in simultaneous, closely interwoven coursework;
e. strong relationships, common knowledge, and shared beliefs among school-and university-based faculty; and
f. extensive use of case study methods, teacher research, performance assessments, and portfolio evaluation to ensure that learning is applied to real problems of practice. (p.x)

In general, the highly qualified of education programs have three major characteristics, namely: clear vision, strong collaboration not only within the institutions but also with schools, and high standard of the learning process for both coursework and fieldwork. The interconnection between coursework and fieldwork is explicitly presented in the vision and its actualization in learning practices. This list is valuable information as a model for other universities to improve their quality to provide adequate learning experiences for future teachers.

The gap between the need for a teacher education program which supports inclusive education and the limited initiatives to make it real due to lack of commitment needs to be solved. With regard to solutions towards this situation, Harvey et al. (2008) suggest that it is the priority to have time to develop initiatives, provide access for collaboration among faculty members to increase faculty awareness of special education, and offer more experiences with special education through giving courses across disciplines or majors. In recognizing the preparation towards the success of the entire program, this is, therefore, important to investigate a) the impact of the current model in terms of pre-service teachers' attitude toward inclusion, their self-efficacy, b) pre-service teachers' challenges during teaching practices at practicum sessions and c) barriers among faculty members to work collaboratively. The future study as a starting point to solve major obstacles in the redesign of teacher education in response to inclusion could be done in two ways, mapping the students' achievement in the current model to represent the effect of coursework and field experiences that have been done or explore the feasibility of collaboration across departments.

**Conclusion**

Inclusive education as a major reform in education is in line with the effort of improvement education quality in general. Some changes needed in order to minimize its barriers and ensure all students learning. Those are child-centered, collaborative teamwork and long life learning the process. All of them related with how the quality of teaching would enhance through in-service training and pre-service training. There are three major points of pre-service training to prepare future teachers namely: attitudes, knowledge and collaborative skills that related to how students' learning, how teachers prepare and evaluate learning experience based on students' needs and how to develop learning atmosphere through mutual interaction. All teachers' competence that is built through preparation program needs to be in line with the support system that already established at school as sustainable efforts to support inclusive education. This competency will be achieved in highly qualified of teacher education program that has some characteristics, clear vision, strong collaboration not only within the institutions but also with schools, and high standard of the learning process for both coursework and fieldwork.

**References**

5. Ahsan, M. T., Sharma, U., & Deppeler, J. M. (2012). Challenges to Prepare Pre-Service Teachers for Inclusive Education in Bangladesh: Beliefs of Higher Educational Institutional Heads. *Asia Pacific Journal of Education*, *32*(2), 241–257.

6. Ainscow, M. (2005). Developing inclusive education systems: what are the levers for change? *Journal of Educational Change*, *6*(2), 109–124. http://doi.org/10.1007/s10833-005-1298-4
7. Allday, R. A. allan.allday@uky.edu, Neilsen-Gatti, S., & Hudson, T. M. . (2013). Preparation for Inclusion in Teacher Education Pre-Service


ISBN: 978-602-74576-0-7

Curricula. *Teacher Education & Special Education*, *36*(4), 298–311. http://doi.org/10.1177/0888406413497485

8. Archambault, R. D. (1966). *Dewey on education; appraisals*. New York: Random House.
9. Avramidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school in one local education authority. *Educational Psychology*, *20*(2), 191–211.
10. Avramidis, E. (2005, August). Developing inclusive schools: changing teacher's attitudes and practices through critical professional development. In *Inclusive and supportive education congress. International Special Education Conference. Inclusion: Celebrating diversity*.
11. Darling-Hammond, L. (1992). Reframing the School Reform Agenda: Developing Capacity for School Transformation.
12. Darling-Hammond, L., American Association of Colleges for Teacher Education, & National Commission on Teaching & America's Future (U.S.) (Eds.). (2000). *Studies of excellence in teacher education: preparation at the graduate level*. Washington, DC: AACTE Publications.
13. Darling-Hammond, L. (2006). *Powerful teacher education: lessons from exemplary programs* (1st ed). San Francisco, CA: Jossey-Bass.
14. Darling-Hammond, L., & Bransford, J. (Eds.). (2005). *Preparing teachers for a changing world: what teachers should learn and be able to do* (1st ed). San Francisco, CA: Jossey-Bass.
15. Darling-Hammond, L., & McLaughlin, M. W. (1995). Policies that support professional development in an era of reform. *Phi Delta Kappan*, *76*(8), 597–604.
16. Day, C. (1997). In-service Teacher Education in Europe: conditions and themes for development in the 21st century. *Journal of In-Service Education*, *23*(1), 39–54. http://doi.org/10.1080/13674589700200002
17. de Boer, A., Pijl, S. J., & Minnaert, A. (2011). Regular primary schoolteachers' attitudes towards inclusive education: a review of the literature. *International Journal of Inclusive Education*, *15*(3), 331–353. http://doi.org/10.1080/13603110903030089
18. DeSimone, J. R., & Parmar, R. S. (2006). Middle School Mathematics Teachers' Beliefs About Inclusion of Students with Learning Disabilities. *Learning Disabilities Research & Practice (Wiley-Blackwell)*, *21*(2), 98–110. http://doi.org/10.1111/j.1540-5826.2006.00210.x
19. Etscheidt, S., Curran, C. M., & Sawyer, C. M. (2011). Promoting reflection in teacher preparation programs: A multilevel model. Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children, 0888406411420887.
20. Ferguson, D. L. (2008). International trends in inclusive education: the continuing challenge to teach each one and everyone. *European Journal of Special Needs Education*, *23*(2), 109–120. http://doi.org/10.1080/08856250801946236
21. Ferguson, D. (1995). The real challenge of inclusion: confessions of a 'rabid inclusionist'. Phi Delta Kappan, 77281-287.
22. Florian, L., & Linklater, H. (2010). Preparing teachers for inclusive education: using inclusive pedagogy to enhance teaching and learning for all. *Cambridge Journal of Education*, *40*(4), 369–386. http://doi.org/10.1080/0305764X.2010.526588
23. Forlin, C., & Chambers, D. (2011a). Teacher preparation for inclusive education: increasing knowledge but raising concerns. *Asia-Pacific Journal of Teacher Education*, *39*(1), 17–32. http://doi.org/10.1080/1359866X.2010.540850
24. Forlin, C., & Chambers, D. (2011b). Teacher preparation for inclusive education: increasing knowledge but raising concerns. *Asia-Pacific Journal of Teacher Education*, *39*(1), 17–32. http://doi.org/10.1080/1359866X.2010.540850
25. Forlin, C., Loreman, T., Sharma, U., & Earle, C. (2009). Demographic Differences in Changing Pre-Service Teachers' Attitudes, Sentiments and Concerns about Inclusive Education. *International Journal of Inclusive Education*, *13*(2), 195–209.
26. Forlin, C., Sharma, U., & Loreman, T. (2007). An International Comparison of Pre-service Teacher Attitudes towards Inclusive Education. *Disability Studies Quarterly*, *27*(4). Retrieved from http://dsq-sds.org/article/view/53
27. Freire, P. (1970). *Cultural action for freedom*. Cambridge: Harvard educational review.
28. Friend, M. P., & Bursuck, W. D. (2006). *Including students with special needs : a practical guide for classroom teachers*. Boston : Pearson/Allyn and Bacon, c2006.


ISBN: 978-602-74576-0-7

29. Fuchs, L. S., Fuchs, D., & Bishop. (1992). Instructional Adaptation for Students at Risk. *Journal of Educational Research*, *86*(2-), 70–84.
30. Glazzard, Jonathan (2011) Perceptions of the barriers to effective inclusion in one primary school: voices of teachers and teaching assistants. Support for Learning, 26 (2). pp. 56-63. ISSN 1467-9604
31. Gokdere, M. (2012). A Comparative Study of the Attitude, Concern, and Interaction Levels of Elementary School Teachers and Teacher Candidates towards Inclusive Education. *Educational Sciences: Theory and Practice*, *12*(4), 2800–2806.
32. Harvey, M. W., Yssel, N., Bauserman, A., & Merbler, J. B. (2008). Preservice teacher preparation for inclusion: An exploration of higher education teacher-training institutions. Remedial and Special Education.
33. Hollins, E. R. (1993). Assessing Teacher Competence for Diverse Populations. *Theory Into Practice*, *32*(2), 93.
34. Hornstra, L., Denessen, E., Bakker, J., Bergh, L. van den, & Voeten, M. (2010). Teacher Attitudes Toward Dyslexia: Effects on Teacher Expectations and the Academic Achievement of Students With Dyslexia. *Journal of Learning Disabilities*, *43*(6), 515–529. http://doi.org/10.1177/0022219409355479
35. Individuals with Disabilities Education Act, 20 U.S.C. § 1400_B (612).(A) (2004)
36. Klein, A. (2007, February 23). Critics of NCLB Ask Congress to Overhaul It. Education Week, 1-1.
37. Kozleski, E. B., Pugach, M., & Yinger, R. (2002). Preparing Teachers To Work with Students with Disabilities: Possibilities and Challenges for Special and General Teacher Education. White Paper. Retrieved from http://eric.ed.gov/?id=ED468743
38. Lipsky, D. K., & Gartner, A. (1997). *Inclusion and school reform : transforming America's classrooms*. Baltimore, Md : P.H. Brookes Pub. Co., c1997.
39. Little, M. E., Sobel, D., McCray, E. D., & Wang, J. (2015). Redesigning Personnel Preparation Lessons Learned and Considerations for Program Enhancement. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, *38*(4), 306–322. http://doi.org/10.1177/0888406415581499
40. Loreman, T. (2010). Essential Inclusive Education-Related Outcomes for Alberta Preservice Teachers. *Alberta Journal of Educational Research*, *56*(2).
41. Minke, K. M., Bear, G. G., Deemer, S. A., & Griffin, S. M. (1996). Teachers' Experiences with Inclusive Classrooms: Implications for Special Education Reform. *Journal of Special Education*, *30*(2), 152–86.
42. O'Neill, P. T. (2001). Special education and high stakes testing for high school graduation: An analysis of current law and policy. *JL & Educ.*, *30*, 185.
43. Pivik, J., McComas, J., & Laflamme, M. (2002). Barriers and Facilitators to Inclusive Education. *Exceptional Children*, *69*(1), 97. Retrieved from https://login.proxy.lib.uni.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=afh&AN=7350720&site=eds-live
44. Sapon-Shevin, M. (2007). Widening the circle: the power of inclusive classrooms. Boston: Beacon Press.
45. Sharma, U., Forlin, C., & Loreman, T. (2008). Impact of training on pre-service teachers' attitudes and concerns about inclusive education and sentiments about persons with disabilities. *Disability & Society*, *23*(7), 773–785. http://doi.org/10.1080/09687590802469271
46. Sze, S. (2009). A Literature Review: Pre-Service Teachers' Attitudes toward Students with Disabilities. *Education*, *130*(1), 53–56. Retrieved from https://login.proxy.lib.uni.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ871634&site=ehost-live
47. Stubb, S. (2000). Overcoming barriers to inclusion in Douentza, Mali. EENET Newsletter. Retrieved December 5, 2015, from http://www.eenet.org.uk/resources/eenet_newsletter/news4/page8.php
48. Talmor, R., Reiter, S., & Feigin, N. (2005). Factors Relating to Regular Education Teacher Burnout in Inclusive Education. *European Journal of Special Needs Education*, *20*(2), 215–229.
49. Taylor, R. W., & Ringlaben, R. P. (2012). Impacting Pre-service Teachers' Attitudes toward Inclusion. *Higher Education Studies*, *2*(3), 16. http://doi.org/10.5539/hes.v2n3p16



ISBN: 978-602-74576-0-7

50. Turnbull, A. P., Turnbull, H. R., & Wehmeyer, M. L. (2010). *Exceptional lives : special education in today's schools*. Upper Saddle River, N.J. : Merrill, c2010.
51. Ulich, R. (1954). Three thousand years of educational wisdom; selections from great documents (2d ed., enl). Cambridge: Harvard University Press.
52. Unesco. (1994). The Salamanca Statement and Framework for action on special needs education: adopted by the World Conference on Special Needs Education; Access and Quality. Salamanca, Spain, 7-10 June 1994. Unesco.
53. UNESCO Office in Bangkok: Barriers to Inclusive Education. (n.d.). Retrieved December 5, 2015, from http://www.unescobkk.org/education/inclusive-education/what-is-inclusive-education/barriers-to-inclusive-education/
54. Wade, S. E. (2000). Preparing Teachers for Inclusive Education: Case Pedagogies and Curricula for Teacher Educators : Case Pedagogies and Curricula for Teacher Educators. Mahwah, N.J.: Routledge.
55. V. Baran, M. Colonna, M. Di Toro and V. Greco, *Phys. Rev. Lett.* **86**, 4492 (2001).


ISBN: 978-602-74576-0-7

# LEARNING INDONESIAN FOR FOREIGNER BASED ON INDONESIAN CULTURE

Written by

(Imam Suyitno, Indonesian Letters Department, Faculty of Letters, State University of Malang, email: yitnolis@yahoo.com, phone: 081217800362)

**Abstract**: Learning Indonesian for foreigners based on culture is directed at language learning oriented to introduce and enrich student insight of Indonesian culture. The main of cultural materials introduced are a cultural behavior, cultural knowledge, and cultural objects. The principle of the introduction of material culture is to equip foreign students to be able to speak Indonesian in accordance with the circumstances. Those conduct the selection of Indonesian language teaching-learning approach to the communicative approach. The communicative approach has the assumption that language is a system in the disclosure of meaning for people to communicate and interact in accordance with people's real culture of native speakers. The structure of language reflects the user function and communicative function. Language learning occurs when the activity takes place in a real communication in accordance with the culture of their speakers. Therefore, the introduction of a culture to foreign students in learning Indonesian done using immersion techniques.

**Key words**: learning Indonesian, foreigner, Indonesian culture

Language plays an important role in the lives of individuals and communities in a community of nation. Through language, a community can develop a culture and build a positive image of the community and to improve the promotion of culture in the international community. Language can be a means to deliver information while reflecting the owner community culture. By understanding the language, people can know the pattern of culture and community life of the owner of the language. Language can be a communication bridge for the peoples of different countries and cultures. To make the culture of a society is known by other nations, can be done through learning of language used community having the culture.

Learning Indonesian to foreign speakers, both in Indonesia and in other countries, will expand distribution of Indonesian culture to be recognized by other nations. Understanding of other nations against Indonesian culture can in fact improve the image of Indonesia in the international world. It is guided by the fact that the ability to understand and communicate in Indonesian will allow foreigners to adapt to the culture and society so as to know the culture Indonesia Indonesia correctly. National Education Minister Bambang Sudibyo, said that by studying the language, people can know the 'world' language communities were studied, both on social conditions, culture, and politics in society. Furthermore, the Head of the Language Center, Dendy Sugono, affirmed that Indonesian is the gateway into the "world" Indonesia or primary means for foreigners to understand the society and culture in the country. Learning Indonesian basically also learn to understand the civilization of Indonesia (http://64.203.71.11/kompas-cetak/0707/19/humaniora/ 3698504.htm, accessed January 5, 2008).

Indonesia strategic position in international relations make crossings of Indonesia as one of the goals and objectives of the visit of strangers. Indonesia tourism promotion and the opening of the labor market in Indonesia for the international community increase the interest and opportunities for foreigners to visit Indonesia and entering the working area in Indonesia. Thus the existence of Indonesia which is to encourage foreigners to try to learn Indonesian in order to communicate better with the officials, colleagues, employees, or the general public in Indonesia (Sammeng, 1995).

This fact becomes an opportunity and a major challenge for the academic community in developing employment opportunities through the implementation of learning the Indonesian language program for foreign speakers (BIPA). In such circumstances, learning providers BIPA need responsive in meeting the needs of foreigners who wish to enter the labor market and recognize Indonesia closer together. Learning BIPA into the arena as well as vehicle and significant potential in introducing Indonesian society and culture. Therefore, to introduce Indonesian culture and meet the learning needs for foreigners, cultural learning through learning BIPA need to be implemented programmatically and dealt with seriously by the BIPA institutions.


ISBN: 978-602-74576-0-7

BIPA institutions need to prepare seriously learning programs that meet the norms of pedagogical introduction to the culture of learning BIPA. Readiness and reliability that meet the norm pedagogical program will appear in the selection and presentation of the cultural teaching materials are packed in BIPA learning materials. Pedagogical norms in the selection of teaching materials become essential for BIPA teachers and material developers in an effort to incorporate cultural aspects into BIPA material that is taught to foreign students. The pedagogical norms involves the study of cultural norms and the actual use of the language and its implementation on pedagogical objectives. Those activity was conducted from the design of materials that will be taught to the creation of a class activity BIPA learning from day to day (Bardovi-Härlig and Gass, 2002)

**BIPA Student**

Understanding of the characteristics of BIPA students is starting point in preparing and implementing learning BIPA. In general, BIPA students are adult learners who have different cultural backgrounds with the culture of the language studied. Characteristics of students thus have implications for the peculiarities of the material selection and presentation of learning BIPA. Characteristics of learning BIPA this needs to be distinguished by learning Indonesian for Indonesian students because in general (1) BIPA not integrate students into the environment, (2) BIPA almost learned in adulthood or when someone has mastered a number of structures of a first language, and ( 3) BIPA processed outside the system language that has been mastered by the learner (Wojowasito, 1976: 38).

In relation to the learning BIPA, there are some properties BIPA students who need to be understood and accommodated in the selection of materials and learning strategies. First, BIPA students already have quite a lot of knowledge and insight, so that their needs are the needs of adults no longer needs children. Second, students BIPA like to express themselves, to present something, express their opinions, so that tasks beyond the classroom will be very interesting. Third, to accommodate the interests and needs of students BIPA varied, need to be prepared materials were varied (Soegino, 1995: 6).

BIPA students in general are adult learners. In line with the maturity of the foreign students, there are some things that must be considered in the selection of BIPA materials. First, BIPA students already have a lot of knowledge and insight, so that their needs are the needs of adults no longer needs children. Therefore, actual topics they want to learn is the general topics such as environmental issues, relationships, energy, world events, and so forth. Second, students BIPA like to express themselves, present their ideas and express opinions so that tasks outside the classroom or create learning projects will be very interesting. Third, to accommodate the interests and needs may differ from one another, the necessary material readiness varies (Soegino, 1995: 6).

In general, students BIPA aims to facilitate the Indonesian language skills to be able to recognize and explore the culture of Indonesia. Fluency and cultural understanding proficiency level required by them for various reasons, namely (a) they take courses on Indonesia at the university where they study, (b) they will study and conduct research in Indonesia, (c) they will work in Indonesia, (d) they will examine the question of Indonesian, and (e) they would stay in Indonesia for a long time. The description of the learning objectives of the BIPA implications for the preparation of learning materials that fit the purpose. Thus, learning materials BIPA has a close connection with the problem of meeting the needs of foreign students.

It is in line with the opinion of Mackey and Mountford (in Sofyan, 1983) which explains that there are three needs that drive a person to learn the language, namely (1) the need for jobs, (2) program needs vocational training, and (3) the need to learn , The findings are also in line with the opinion of Hoed (1995) which states that the BIPA program aims to (1) attending high perpengajaran Indonesia, (2) read books and newspapers for purposes of research, and (3) communicate orally in daily life day in Indonesia. All three objectives were each still can be broken down into several specific goals, for example, to attend lectures at universities in Indonesia requires knowledge of Indonesian accordance with the field of science that followed (social sciences, engineering, economics, and so on). Similarly, for research purposes depending on what area to be studied, in which the research will be done, who is the subject of research, and so forth. To learn Indonesian language spoken for the purpose of communication with residents is also necessary specifying, for example, formal or informal communication. Based on the needs and the learning objectives, materials BIPA selected and prepared in accordance with the


ISBN: 978-602-74576-0-7

requirements or its relevance to the achievement of that goal.

**Cultural Learning Materials**

Culture is all kinds of human activity and the results are patterned, whether or not terinderai terinderai (Sadtono, 2002: 16). In line with these opinions, cultures can be grouped into two large increments, ie, as a product of culture and culture as a whole way of life. As a product, the culture of which intangible values, beliefs, norms, symbols and ideology, while as a way of life, cultural form of human relations and attitudes or human behavior in a relationship with a neighbor (Thompson, 1990: 1) ,

In essence, the culture with respect to human life. Therefore, this culture include the three states with regard to what was done by humans, what one knows or thinks, and what is made or used in meeting their needs. The third form by Spradley (1985) it is stated in terms of cultural behavior, cultural knowledge, and cultural objects. He explained that despite the cultural behavior and cultural objects can be seen easily, the second form reflects only the surface. Actually, a more fundamental and more important is hidden as cultural knowledge because this knowledge that shape the behavior and interpret experiences.

In BIPA learning, the development of cultural material aimed at the introduction and enrichment insight Indonesian culture to foreign students so they can use it as a provision in their everyday lives in Indonesian society. Principles of material culture that need to be introduced to the students BIPA is a cultural behavior, cultural knowledge, and cultural objects. That principle in the provision of material of this culture is to equip students to be able to speak Indonesian BIPA in accordance with the circumstances. In addition, it also introduce Indonesian culture to students BIPA so as to foster a positive attitude and apreasiatif BIPA students to the culture of Indonesia.

Cultural behaviors that need to be introduced to foreign students, among others, is a way of life within the family, friends, community, and manners in association. Learning and recognition of cultural behavior can be made through the placement of foreign students individually on Indonesian families. By always being in family life Indonesia and frequent discussions with family members and the community in the neighborhood where he lived, not least foreign students will recognize how Indonesian family lives. Another activity that can be done in the learning behavior of this culture is the activity of a family visit, a visit to a friend's house, or a visit to the houses of the village or community leaders. Through these activities, can be acquired significant experience in the application of the friendship and civility in the association.

In lessons BIPA, not all of Indonesian cultural treasures can be reached through the activities of the visit or observation. Therefore, the cultural treasures can be introduced to foreign students in the form of cultural knowledge. This cultural knowledge can be obtained through the activity of an expert discussion or explanation. Cultural knowledge about the development of ethnic groups in Indonesia, historical and arts development in Indonesia, the religious system, and so will be more easily understood by foreign students through guest lectures or learning by presenting expert.

Indonesian cultural objects, including historical relics and works of art a superior product, a material culture that needs to be introduced to foreign students. In BIPA learning, foreign students need to be invited to visit the historical places that became the cultural richness of Indonesia. Foreign students also need to be introduced to the works of traditional crafts and traditional arts of Indonesian society. Such learning activity can be packaged in visitation program or excursion.

In BIPA learning, culture can be taught through literature because literature is the author thoughts based on the results of the contact the writer, consciously or not, with the reality of the social and cultural patterns. Through literary works can be taught the local culture that plays a role in shaping universal culture. To students BIPA should not just be introduced and taught universal culture, but also keep in mind the local culture (Seelye, 1994). Included in the culture of teaching materials in the form of literary works is folklore. Folklore is the material pass down the tradition, either through words and customs and habits that can include folk songs, folklore, proverbs, or other materials presented through words. Folklore could also be the traditional tools and physical objects such as traditional ornaments, traditional symbols, and so on.

**Cultural Approach in Learning BIPA**

BIPA introduction to the culture of learning can be done through a cultural approach. In BIPA learning, directed learning approach this culture more focused on the behavior of speaking cultures, not on the material language. In connection with the cultural


ISBN: 978-602-74576-0-7

approach, Keesing (1974) identified four approaches to the problem of culture, namely adaptive systems, cognitive systems, structural systems, and system symbols. These four types of approaches, utilization in learning BIPA described below.

First, the adaptive system sees culture as beliefs or learned behaviors whose function is to adjust human society and its environment. This approach is viewed culture as a system developed by the community to meet their needs or as a strategy for adaptation to the challenges of the environment. Such perspective is associated with cultural ecology or cultural materialism.

In line with the adaptive system, BIPA learning is done by focusing on the cultural use of the language, not the material explanation of grammar. In the event, teachers BIPA functioning himself as a conversational partner and partner learning for students. Teachers provide opportunities to students as optimally as possible to practice using the Indonesian language to communicate. The learning approach focused on the communication process so that the direction of learning material is in the form of language skills.

Second, the cognitive system sees culture as the mindset of individuals who can be accepted by the society. In this case, culture is a system of thought which is composed of something that is known through the process of thinking in a certain way. This approach is associated with a paradigm known as the new ethnography, cognitive anthropology, and etnosains. Associated with the cognitive system, in BIPA learning, teaching BIPA should really know their students' ability levels.

In general, students BIPA grouped into three levels: beginner class, middle class, and the class continued. In teaching practice, sometimes every level can still be divided again into several levels according to the abilities of students so there is a beginner class, lower meddle class, middle class, lower advance class, and advance class. BIPA Student at the beginner class in general have not mastered the target language adequately. To establish communication, learning at the beginner class is usually characterized by a simple verbal communication activity with the topic of cultural material being studied. Meanwhile, BIPA students have at least an intermediate level have provision for communication so that learning at the secondary level is characterized by the activity of communication that leads to learning materials by combining elements learned and ask and answer questions. Meanwhile, BIPA student at advance class already has adequate provisions to establish communication in Indonesian. Therefore, learning in an upscale characterized by the ability to communicate and write an experience to learn and experience the culture in the form of text intact.

Third, the system structure sees culture as the structure of symbols shared by the community. The structure of this symbol is considered similar to the human system of thought. Based on this structural system, it can be argued that grouping students according to ability level BIPA is the right approach in the implementation of learning and the creation of a conducive classroom. Classes that their students have a similar ability to create a good interaction antarpelajar and teachers. If the relative abilities of different learners, learning activities can be disrupted by students who can not attend lessons, or otherwise by other students who have a higher capacity.

Fourth, the symbol of a systems approach, the approach that sees culture as symbols and meanings shared by the community. Symbols and meanings can be identified and are public. In lessons BIPA, Indonesian placed sound symbols that serves as a communication tool, not as memorized language materials or analyzed. Indonesian functioned as a means of communication, both verbal and written. Therefore, the expected target in learning BIPA is the learner's ability to communicate by using Indonesian studies.

In line with the above description, the learning culture, BIPA students are expected to have a communicative language skills in accordance with the communication culture of Indonesian society. In accordance with these expectations, a number of the necessary knowledge possessed by students BIPA is (1) the cultural knowledge of the kind of language which may be said, (2) knowledge of the culture of the words that can be spoken and understood by the listener, (3) the cultural knowledge of the word appropriate and reasonable in the context, and (4) knowledge of the culture ever uttered those words. With the mastery of four, BIPA students will be able to speak properly and grateful.

Based on the cultural approach described above, the right approach to learning BIPA is the communicative approach. The communicative approach has assumptions about the nature of language and language learning. In line with the opinion of Richard and Rodgers (1983), the assumption of the communicative approach about the nature of language is (1) a language is a system in the disclosure of meaning, (2) language is a tool for


ISBN: 978-602-74576-0-7

people to communicate and interact, (3) the structure of language reflects the function of the user and function communicative, and (4) the main unit language is not just a grammatical unit but also the function and meaning of communication. Furthermore, Richard and Rodgers (1983) proposed three principles of the communicative approach, namely (1) learning occurs when the activity takes place in a real communication, (2) in communication activities such as this, the language obviously used, and ( 3) the use of a real language is that for students meaningful or functional.

In relation to the Definition communicative, Van Eck (in Machmoed, 1990) explains that teaching with Definition communicative require the following components in the determination of the purpose of teaching languages, namely (1) the situation underlying the use of language, including the role of the speaker, background, and subject being discussed; (2) the activities of linguistic what would need to be undertaken by students; (3) the function of the language that will be implemented in the future of students in the use of language; (4) what can be done students against each subject; (5) the general notion of what would be handled by students; (6) What specific concepts handled by students in the future; (7) form what language is used by students; and (8) the level of skills that can later be manifested by students. The teaching program with these goals requires learning activities and processes vary, which can help students reach the destination device

**Learning techniques BIPA**

In doing learning activities, needs to be selected and used appropriate learning techniques. Selection of appropriate learning techniques can make the learning process more conducive. In BIPA learning, learning techniques elections need to consider the introduction of the principle of the culture and practice opportunities for students to communicate BIPA. To that end, Suyitno (2004: 36) suggests a number of techniques that educators can use to start the lesson, namely (1) greetings (greetings), (2) ask circumstances / situations in residence, (3) asked his feelings, (4) inquire of its activities, (5) asks about the time (sleep, dream, get up, go to school, etc.), (6) tells what he has done (teacher), (7) asked to use words or sentences has been given the previous day, (8) asked something that was taken or that of the students, (9) responds to statement / question submitted since the beginning of students, (10) explaining what things will be done that day or the next.

Techniques mentioned above aims to create an atmosphere that is intimate and warm before starting the lesson. In addition, this technique can be used to train and awaken courage students to communicate using Indonesian studies. Thus, teachers can find out how many words that have been mastered by students, on what problem he's having trouble, what things that need to be repeated. Another advantage that can be derived from the technique start the lesson this way the teacher can provide additional words that fit the needs of students at the time, and words so this is actually functional for students. This is in accordance with the opinion of Richard and Rodgers (1983), which explained that (1) learning occurs when the activity takes place in a real communication, (2) in communication activities such as this, the language obviously used, and (3) the use this is a real language for students meaningful or functional.

In an effort to introduce the culture and facilitate the ability to speak Indonesian, BIPA learning can be done by using the dye. In conducting the study with this immersion technique, teachers are trying as much as possible not to use the English language. Likewise, students BIPA is advisable to use Indonesian. This is consistent with the statement Wolff, et al. (1988) suggested that teachers BIPA should consider the following techniques in teaching BIPA, namely (1) talk to students with Indonesian, (2) use words, formations, sentences and grammar already known to students, (3) do not provide the opportunity and flexibility to students to speak English, even if they have not been able to convey meaning with Indonesian good, (4) speak fairly, (5) when the students say the sentence is wrong say a sentence that is intended to correct, then cause them to repeat it, (6) the mistakes made by the students let addressed as an error, and (7) an explanation of the words or terms should be based on aspects sosiosemantis to make effective use of examples, and (8) if students have difficulty in training (speech and arrests) long sentences, cut-cut the sentence in meaningful units ranging from the end of the sentence.

BIPA learning presentation techniques do not just happen in the classroom, but also done outside the classroom. Techniques covered in the presentation of the material through activities outside of this class of them through a task outside (to the bank, to the photo studio, to the market), visit, interviews with Indonesian students, visits to tourist places, see things


ISBN: 978-602-74576-0-7

craft ( puppets, ceramics, masks), see performances, watched the ceremonies (weddings, funerals), and so forth. The way that it is in accordance with the opinion expressed by Surajaya (1995) who argued that the tips that can be done in the teaching BIPA is (1) tips tuition, (2) issue an explanation with examples of cultural property, (3) tips demonstration and participation active, (4) tips a review into the field or excursion, (5) tips bulletin, (6) tips dancing and singing, (7) tips simulation game, (8) tips informant native speakers, (9) tips video-tape, (10) tip audio-motor units, (11) issue identification culturally common behavior, (12) tips the identification of cultural connotation, (13) tips minimization of perception that are stereotypes, and (14) tips it makes use authentic.

In language learning in the classroom, the classroom atmosphere to determine the success of learning. The classroom atmosphere should be created as conducive as possible. There are several ways that can be done by teachers BIPA in creating a classroom atmosphere that teaching and learning activities still take place, namely (1) the use of humor, (2) change / provide materials that challenge, (3) provide the singing, (4) provides puzzles (puzzles), (5) provide to the students to take a break, and (6) encourage students to move elsewhere, for example (outside the classroom, in a coffee shop, etc. (Suyitno, 2005).

In addition to the presentation of engineering materials, engineering students face both in the classroom and outside the classroom need attention in learning BIPA. It is given that students are not students BIPA Indonesia, the foreign students who have different cultural backgrounds with instructors. Some of the techniques that can be taken in addressing the students BIPA both inside and outside the classroom is (1) shows the discipline over time, (2) demonstrate responsible attitude towards work / tasks, (3) shows the attitude of a friend, (4) shows attitude who knows the language problems, (5) shows the attitude of patience and painstaking, (6) shows an open attitude, (7) shows the lackluster attitude.

**Conclusion**

Learning Indonesian for foreign speakers on the nature of a process membelajarkan foreigners to be able to speak Indonesian accordance with Indonesian culture. Therefore, in the learning of BIPA, cultural factors can not be separated from the language learning process. It is not intended to make a stranger to cultured Indonesia, but is directed to foreigners in the Indonesian language can adapt to the cultural context of the conversation is done.

In an effort to make strangers to identify and be able to practice in Indonesian language in context, learning is directed at the BIPA based learning culture that is done by using the communicative approach. Through this approach, students BIPA has an adequate opportunity to recognize the Indonesian culture and practice communicating using Indonesian real. Thus, foreign students will be able and accustomed to using the language learned in accordance with the cultural context of the community of native speakers.

**DAFTAR RUJUKAN**

Gass, Susan M, dkk. (eds.). 2002. *Pedagogical Norms for Second and Foreign Language Learning and Teaching*. Philadelphia: John Benjamins Publishing Company.

Gunawan, Samuel. 2007. Merancang BIPA sesuai Tuntutan Pelanggan yang Sangat Beragam dalam Program Pertukaran Mahasiswa, dalam http://www.pusatbahasa.diknas.go.id/laman/nawala.php?info=artikel&infocmd=show&infoid=61&row=3.

Machmoed, Zaini. 1990. **Proses dan Evaluasi Pembelajaran dan Pengajaran Kompetensi Komunikatif**, dalam *Warta Scientia*, No. 49. Th. XVIII, April 1990.

Magnan, Sally Sieloff dan Walz, Joel. 2002. **Pedagogical Norms: Development of Concept and Illustrations from French**, dalam Gass, Susan M, dkk (eds.). 2002. *Pedagogical Norms for Second and Foreign Language Learning and Teaching*. Philadelphia: John Benjamins Publishing Company.

Richards, J.C. dan Rogers, T.S. 1983. *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University Press.

Sameng, Andi Mappi. 1995. *Pengajaran Bahasa Indonesia sebagai Bahasa Asing serta Peranannya*, Makalah Kongres BIPA 1995 di Fakultas Sastra, Universitas Indonesia Jakarta.

Seelye, H.Ned. 1994. *Teaching Culture: Strategies for Intercultural Communication*. Illinois: National Textbook Company.

Sugino, S. 1995. *Pendekatan Komunikatif-Integratif-Tematis dalam Pengembangan Bahan dan Metodologi Pengajaran BIPA di Indonesia,*


ISBN: 978-602-74576-0-7

Makalah Kongres BIPA 1995 Fakultas Sastra Universitas Indonesia Jakarta.

Suyitno, Imam. 2005. *Bahasa Indonesia untuk Penutur Asing: Teori, Strategi, dan Aplikasi Pembelajarannya*. Yogyakarta: CV Grafika Indah.

Suyitno, Imam. 2004. *Pengetahuan Dasar BIPA: Pandangan Teoritis Belajar Bahasa*. Yogyakarta: CV Grafika Indah.

Suyitno, Imam, 2008. *Dimensi Teoretis dan Metodologis Belajar Bahasa Asing, Landasan Teori Pembelajaran BIPA.* Malang: Cakrawala Indonesia.

Suyitno, Imam. 2010. *Mengenal Budaya Etnik Melalui Pemahaman Wacana Budaya*. Malang: A3.

Wojowasito, S. 1976. *Perkembangan Ilmu Bahasa (Linguistik) Abad 20*. Bandung: Shinta Dharma.

Wolff, John U.; Oetomo, Dede; dan Fietkiwicz. 1988. *Beginning Indonesian Through Self-Instruction, Book 1*. Ithaca: Cornell University, SEAP.


ISBN: 978-602-74576-0-7

# ENGLISH LANGUAGE TEACHING IN ASEAN: AN ACCOUNT OF PROBLEMS AND PROSPECTS

Herli Salim, Peter Waterworth, Greg Keaney, Wachyu Sundayana*& Sudarsono

Abstract

English has become increasingly important within the ASEAN community since, in 2009, it was declared the official working language of the community. Most citizens of ASEAN nations are either bilingual or multilingual but the use of English throughout the community is variable, depending largely upon the colonial and linguistic history of each nation. Those in the Outer Circle countries (Kachru, 1985) appear to have greater advantages in English language usage than those in the Expanding Circle countries. This study of the opinions of teachers of English in schools in ASEAN countries investigated the status of English teaching throughout the community and attempted to discover the differences between countries in the teaching of English. It examined the challenges that teachers faced in their roles, the factors which affected their perceived effectiveness and the impact of their teaching upon their students. It explored the impact of the teaching and increased usage of English upon the maintenance of national or local languages and the preservation of national culture and identity.

Keywords : ASEAN Community, teaching of English, English language teaching (ELT), L2 teachers of English,

## Introduction: English in ASEAN

English has been adopted as the working language of Association of South East Asian Nations (ASEAN) and is to continue to be vigorously taught in schools within Asian nations. According to Le Luong Minh, Secretary-General of ASEAN, English is an important and indispensable tool that will bring the ASEAN community together (ASEAN Secretariat, 2013A). Can English be assimilated into all the various education systems around ASEAN without harming national, regional or indigenous languages and identities? Can a unique ASEAN identity be created to help bind the people of ASEAN together with any sense of loyalty and pride (Jones, 2004, McLean, 2011, Huxley, 2010)? This study examines current practices in schools throughout selected ASEAN nations in the teaching of English. In specific terms, it examines the capabilities, concerns and resources of teachers of English in order to identify the perceptions teachers of English and their schools have of the role of English language teaching in the future of ASEAN. This study discusses English Language Teaching (ELT) policy and practice in ASEAN and looks at schools and teachers in Brunei, Cambodia, Indonesia, Thailand, Myanmar, Philippines, Malaysia and Vietnam in English language performance at the student, teacher and system levels. It argues that a virtual cycle of consistent policy decisions and goals is needed to support program design, which leads to successful classroom activities and ultimately successful outcomes. The importance of English as a regional communication tool will increase significantly with the coming 2015 ASEAN community (*Department of Trade and Industry, Philippines, 2014)*. This makes effective long term support for English language improvement an essential educational goal. How are successful English students motivated? What do effective English teachers do? How can educational systems ensure that English language learning improvement goals are met and exceeded? In short, how can English Language Teaching (ELT) be turned into a 'good news' story at student, teacher, school and national levels?

## English teaching throughout ASEAN

Competency in English is variable throughout ASEAN depending largely upon the history each nation has had with English and the prevailing national policies on the teaching of English in schools across the last few decades. While there are difficulties in producing fully accurate rankings of English language proficiency across countries, a combination of examination and other data does allow reasonable comment on English proficiency across the various ASEAN countries.

The most readily available data comes from a number of international sources the English First Proficiency Index, Educational Test Service TOEFL test, the British Council/IDP: IELTS Australia/Cambridge English Language Assessment IELTS test and the Cambridge International Examinations suite of O level and IGCSE English language exams. The most commonly cited English Proficiency Index is that produced by the English language school chain


ISBN: 978-602-74576-0-7

English First. While this lists results for all the ASEAN nations (except Brunei) the subjects took a free test online and of their own accord it is not a statistically controlled study: They were by definition connected to the internet and interested in testing their English; they are also younger and more urban than the population at large. According to the EF English Proficiency Index for adults in 2013, in order, Malaysia and Singapore were in the high proficiency category, Indonesia in the moderate proficiency category, Viet Nam in the low and Thailand and Cambodia in the very low category (Education First, 2014). In the same report, Indonesia, Thailand and Viet Nam were globally the most improved nations in English proficiency over the last few years.

Educational Testing Service's TOEFL data is relatively comprehensive and is widely used by candidates in ASEAN wishing to study in the USA or to work for US organisations. Data for ASEAN nations is shown in Table 1.

**Table 1: TOEFL iBT section and total score means for all examinees in 2014 in ASEAN countries**

| Country | TOEFL Scores | | | | |
|---|---|---|---|---|---|
| | Reading | Listening | Speaking | Writing | Total |
| **Singapore** | 24 | 25 | 24 | 25 | 98 |
| **Malaysia** | 22 | 22 | 21 | 23 | 89 |
| **Philippines** | 21 | 22 | 24 | 22 | 89 |
| **Brunei[2]** | - | - | - | - | - |
| **Indonesia** | 21 | 21 | 21 | 21 | 84 |
| **Viet Nam** | 19 | 19 | 19 | 21 | 79 |
| **Myanmar** | 18 | 19 | 20 | 20 | 78 |
| **Thailand** | 18 | 19 | 19 | 19 | 74 |
| **Cambodia** | 15 | 16 | 19 | 19 | 69 |
| **Lao PDR** | 13 | 15 | 18 | 18 | 64 |

Source: Educational Testing Service, 2015, 14-15.

The British Council/IDP: IELTS Australia/Cambridge English Language Assessment IELTS examinations provide data for the Philippines, Malaysia, Thailand, Indonesia and Vietnam. Of candidates taking the IELTS examinations in these countries in 2014 the following percentages of students obtained an overall band score of 6 or higher (generally considered to be the minimum functional proficiency required in English for further English medium study).

**Table 2: IELTS data for Academic examinees in 2013 in identified ASEAN countries**

| Country | % Band 6 or higher |
|---|---|
| Philippines | 94% |
| Malaysia | 87% |
| Indonesia | 80% |
| Viet Nam | 58% |
| Thailand | 55% |

Source: IELTS (2014)

The country generally acknowledged to have the highest English language proficiency in ASEAN is Singapore. Singapore's school system is English medium and students sit for Cambridge International Examinations O level English language exams after 11 years of schooling. More than 80 per cent of each year's school cohort achieve a passing grade or higher in the Cambridge O level English as a first language examination – a benchmark considered to be native like proficiency (Pearl, 2015).

The gradual separation of the colonial states from their European rulers occurred mainly in the middle of the


ISBN: 978-602-74576-0-7

twentieth century spurred on by global independence movements and the end of Japanese occupation of the region in 1945. The Philippines had earlier gained independence from Spain in 1898 but was subsequently colonised by the US until self-rule was granted in 1946. Viet Nam and Indonesia gained their independence from France and the Netherlands respectively in 1945. Other nations gained theirs in following years, with Myanmar from the UK in 1948, Lao and Cambodia from France in 1953, Malaysia from the UK in 1957 followed by the establishment of Malaysia in 1963, Singapore in the separation or expulsion from Malaysia in 1965 and Brunei from the UK in 1984.

**Identity formation and language learning**

Identity formation and language learning are closely connected. The apparent linkage in the world at large between linguistic and ethnic identity has meant that the two were almost seen as inextricably entwined. Indeed if identity formation is a dual process of identification and negotiation of meanings (Wenger; 1998), then it is a social process mediated by learning and interaction – a process that is necessarily linguistic in nature. This obviously leads to a concern that, at a profound level, the learning of a language is connected with the binding into a social community and that those who speak a language may come to share a particular 'worldview'.

Language education theorists traditionally struggled to adequately describe the relationship between language learners and their social world (Pierce; 1995). Over the past few decades however there has been ongoing movement in our understanding of both language learning and identity formation. These are now seen as rather more flexible and creative, more conversations in which people participate, or discourses that people can create and control, rather than immutable scripts that people acquire (McDermott, 1993, 295). Interest in the relationship between identity and language learning has also reflected a shift from a more 'mentalist' approach with binary categories such as 'motivated' and 'unmotivated' to a more complex view of identity positions and a greater awareness of the sociological and cultural dimensions of language learning (Morgan, 2007; Norton & Toohey, 2001).

**Research methodology**

This study investigated the opinions of second language (L2) teachers of English in ASEAN to discover what they thought about the impact of the learning and use of English upon national languages and cultures. We sought fifteen teachers from primary, junior secondary and senior secondary schools in each ASEAN country. To do this, we appointed one Country Liaison Person (CLP) in each country to select teachers to participate in the project. The CLP was a member of the research team (from UPI or CfBT Brunei) in Brunei, Indonesia and Malaysia but all other CLPs were selected from professional contacts we had in the other ASEAN countries. All CLPs were senior educators in schools, the Education Department or universities in the region. We provided a set of criteria for the selection of teachers to each CLP. Teachers who were selected were to be typical of teachers of English in the country in age range, sex representation, length of teaching experience, type of school and rurality. They were to be nationals of the country (not foreign teachers), with ready internet access and a willingness to participate in the project. Teachers who participated in the project were not paid but were provided with a gift of appreciation (a REAL T-shirt) and booklets from CfBT on teaching English. CLPs were provided with expenses for undertaking the liaison role and a small honorarium.

**Kinds of questionnaire and interview analyses**

We were able to gather respondents from only eight of the ten ASEAN countries (with Lao PDR and Singapore teachers now to be included in later stages of the project) and 106 of a potential 120 respondents sent questionnaire returns. Data were collected online using Google Forms and was converted into SPSS format for statistical analysis. The number of responses from Malaysia and Myanmar fell to as few as 11 teachers each. The nature of the opinion related questions combined with the small response rate in some countries limited the kinds of statistical analyses we could carry out on a country-by-country basis and drove us towards broader kinds of considerations. We believed that the spread of opinions of English teachers across such a wide geographical area provided the true value and richness of the data that we were seeking. We did not consider the respondents represented the characteristics and opinions of teachers of English from their countries and were therefore wary to generalise the results of this analysis to the wider population of English teachers in the region. These results could be regarded as indicative and preliminary.

Our analysis confined itself to the consideration of frequencies with limited comparability which we converted into percentages. We developed mean responses country-by-country on Likert scale opinion questions which provided a valuable measure of numerical comparison. We also took out measures of


ISBN: 978-602-74576-0-7

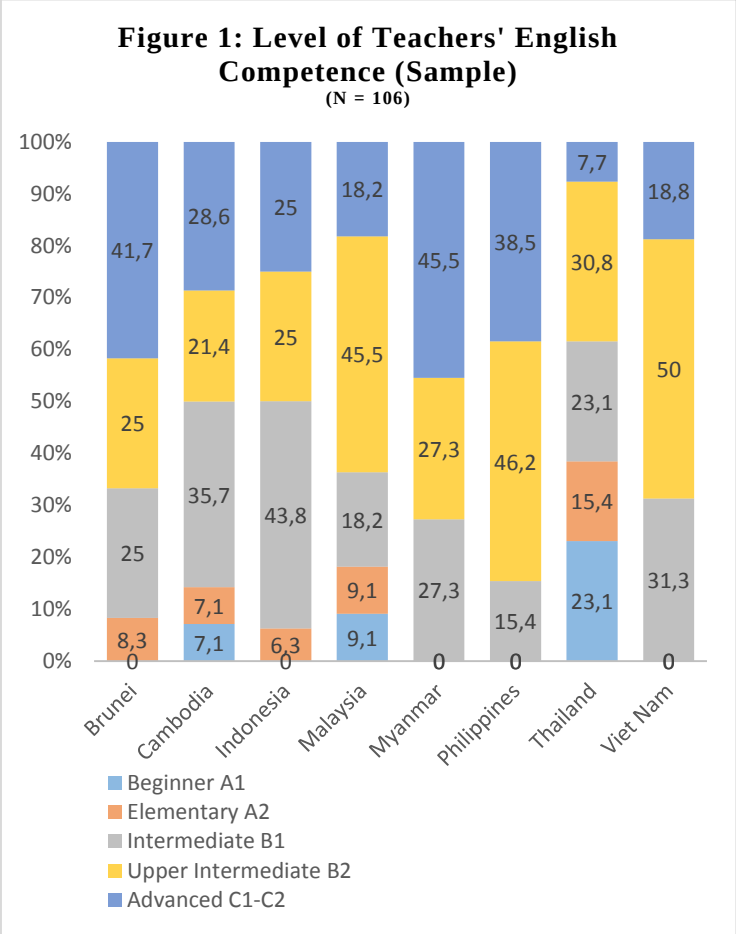
correlation using Chi-square analysis between groups of respondents on the basis of key variables including sex, age, length of teaching experience, level taught, level of teachers' English competence and number of years of study of or in English where subgroups being compared were of a more substantial size. We also grouped country respondents according to Kachru's Outer or Expanding Circle countries and level of country's Gross Domestic Product (GDP).

**Description of the sample**

We received responses to the questionnaire from 106 teachers of English from Brunei, Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Thailand and Viet Nam. We attempted to make the sample as representative as possible of L2 teachers of English in each country, however, we recognised the fact that our CLPs were most likely to draw teachers from among their closer professional contacts in their own particular geographical locations. Females made up 62.9 per cent of the sample and the age range of the sample was from 21 to 66 years with a mean age of 36.08 years. Primary school teachers made up 43.4 per cent of the sample and the secondary teachers were divided between 21.7 per cent junior secondary and 34.9 per cent of senior secondary teachers. Thus 65.1 per cent of teachers were teaching in the compulsory years of schooling. Since some countries do not have English compulsorily at primary school level, these numbers appeared to represent fairly well the teaching force in the region. CLPs in countries with little or no English in primary schools (such as Cambodia and Myanmar) selected teachers at that level from private schools where English was taught. The sample was drawn mostly from schools in urban or large regional centres in every country with a few rural or semi-rural schools also included.

The level of English competence in teachers from the sample varied tremendously as shown in Figure 1. There were far more teachers in Upper Intermediate (B2) and Advanced (C1-C2) in Brunei, Malaysia, Myanmar and Philippines and far more in the lower categories of Beginner (A1) and Elementary (A2) in Cambodia, Indonesia, Malaysia (again) and Thailand. Even though this sample was not randomly selected, these findings mirrored the Outer and Expanding Circle categories of Kachru (1985), indicating the vital importance of British or American heritage and thus an emphasis upon English in public life in the Outer Circle countries.


ISBN: 978-602-74576-0-7




We wondered whether the level of English competence was an important factor affecting opinions of teachers on other matters so we tested the level of English against opinion factors. Those factors where level of English was significantly linked to opinions are shown in Table 2

.

**Table 2: Level of English competence correlated with opinions on selected factors**

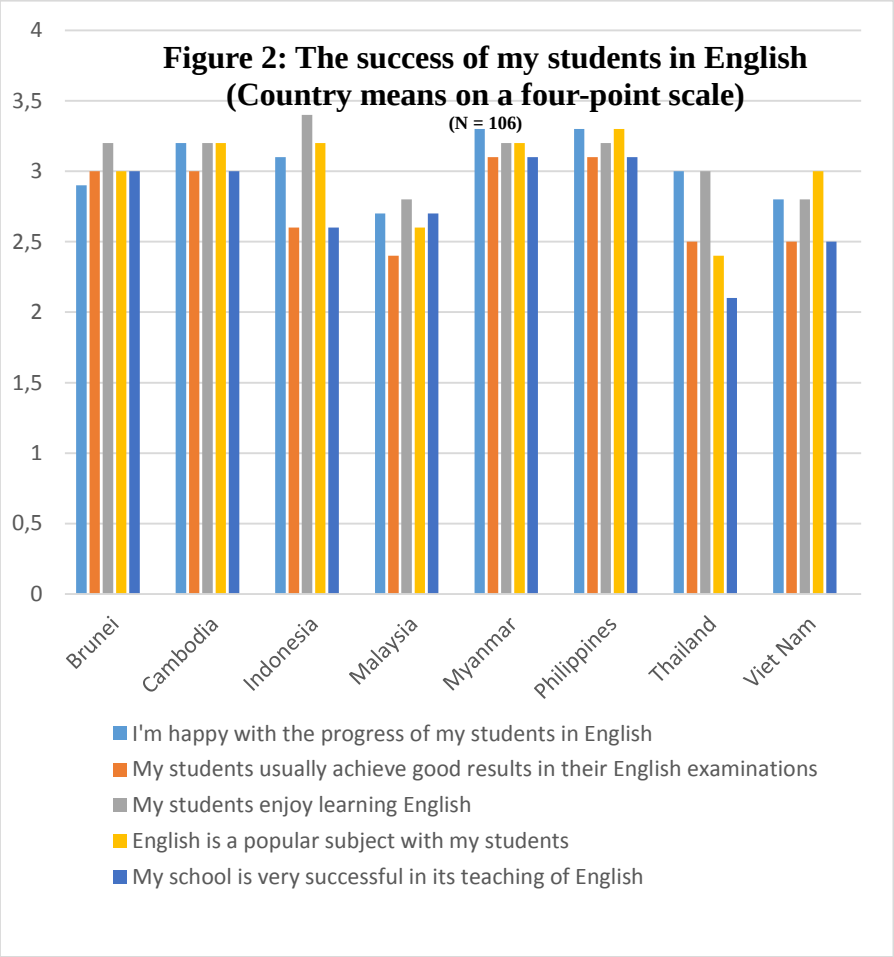
| Item no./Item | N | df | Sig. |
|---|---|---|---|
| 9. I think I can speak English well. | 102 | 3 | .000* |
| 11. I feel very confident in planning for and teaching my English classes. | 103 | 6 | .005* |
| 14. English is a popular subject with my students. | 103 | 6 | .014* |
| 23. My school supports me very well in my teaching of English. | 103 | 9 | .042* |
| 24. My school district supports me very well in my teaching of English. | 103 | 9 | .041* |
| 31. English should be taught well in schools in my country as a way of developing the ASEAN community. | 103 | 3 | .018* |
| 32. Other teachers in my school are very happy that my school has a strong English program. | 103 | 9 | .036* |
| 34. I wish I could speak English like a first language speaker of English. | 103 | 9 | .024* |
| 44. The materials used in English lessons in my country reflect local and national identity well. | 103 | 6 | .025* |
| 45. I make an effort in my lessons in English to use books, materials and examples that accurately depict (reflect) our local and national culture. | 103 | 6 | .011* |
| 46. I think that the learning of English in schools is just as important as the learning of the national language. | 103 | 6 | .050* |


ISBN: 978-602-74576-0-7

These analyses produced some very interesting findings possibly linked to the level of confidence teachers experienced when they were highly competent in the language they were teaching their students. They were significantly more likely to feel confident in planning and teaching English and they felt significantly more confident that their students enjoyed learning English than teachers with lower levels of competence in English (Jayadi, 2015). They were significantly more confident that they received the support of their schools, their district and from other teachers at their schools in their English teaching programs.

**Student progress in English**

We compared the opinions of teachers, country-by-country, by calculating the mean rating of opinion scores for each country. Our questionnaire was completed by teachers so our consideration of the motivation and commitment of students to the learning of English was based on the opinions of their teachers. Figure 2 shows the mean scores of teachers on a four-point scale. Bars on the graph indicate the mean score on each factor.



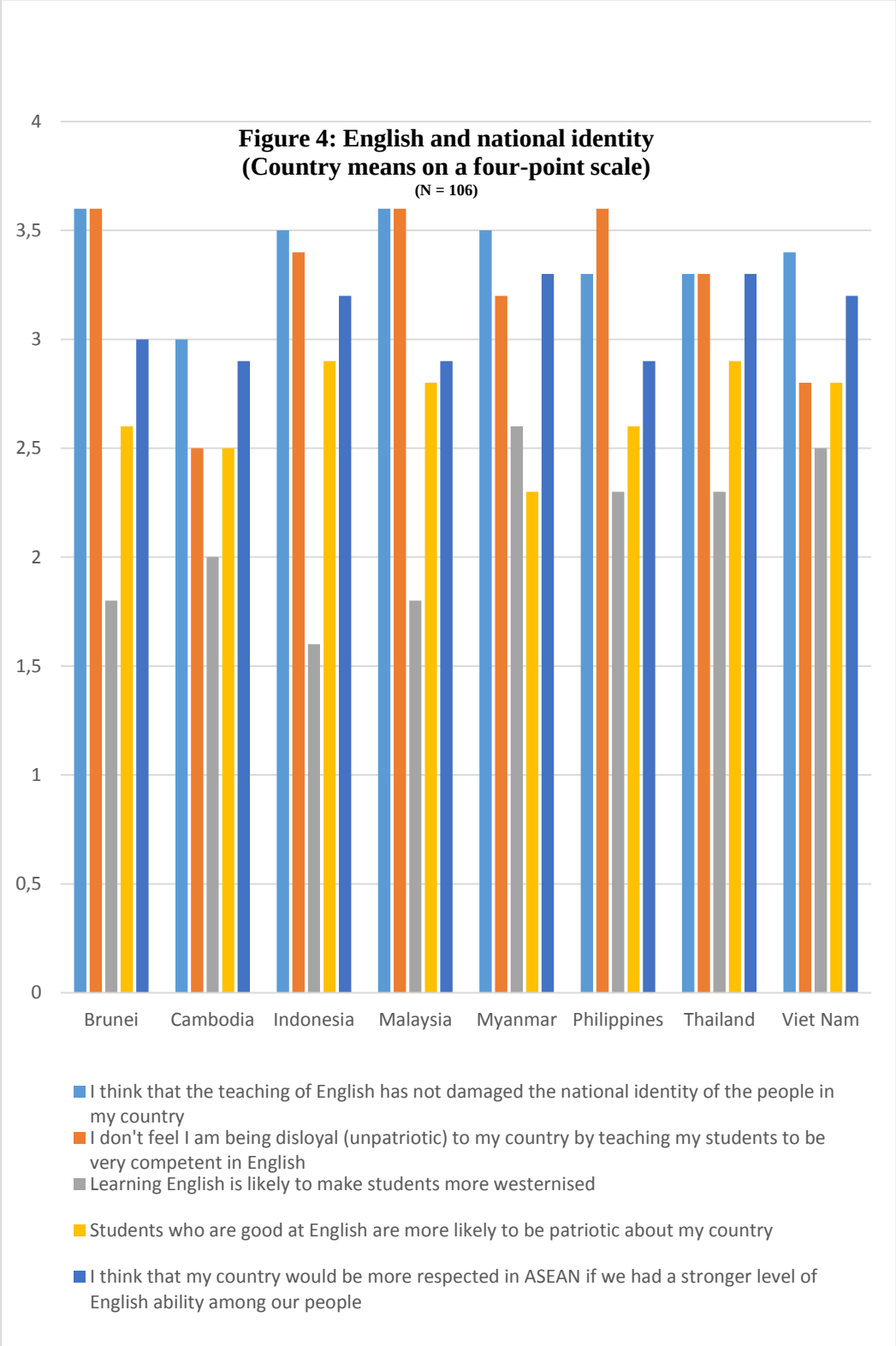

Teachers' general level of satisfaction with their students' progress in English is shown in the first (pale blue) bars for each country. Teachers in Myanmar, Philippines and Cambodia were the happiest and those in Malaysia were the least happy with their students' progress in English. This statement could be interpreted in a number of ways and perhaps the teachers who were looking for ever improving results from their students might have been the least satisfied with current student progress (Marantika, 2015, Al-Munawwarah et al, 2015). The second (orange) bars indicated the mean score for students achieving good results in examinations. Again the levels of teacher satisfaction were highest in Myanmar, Philippines, Cambodia and Brunei and the lowest, again were in Malaysia. The measure of whether the students enjoyed learning English, which may not necessarily have been correlated with actual achievement levels in the subject, are shown in the grey bar. Indonesian teachers were clearly ahead here and Malaysia, again, and Viet Nam were the least happy. The popularity of English with students was consistently high among all countries except for Malaysia and Thailand. Teachers in Myanmar and Philippines were the most happy with

the success of their schools in teaching English, as shown in the dark blue bar, although other countries were not far behind with the exception of Thailand which was clearly the lowest. These measures of teacher perceptions may not indicate the reality of students' English results or measures of English fluency but they do indicate the general understandings teachers had of the place of English teaching in their schools. Levels of teacher satisfaction with student progress were higher in Myanmar and Philippines and more of a concern in Malaysia, Thailand and Viet Nam.

**English and the national language**

The major emphasis of this project was the consideration of teachers' opinions of the impact of the learning of English upon the national and local languages in the countries of ASEAN. We were interested in the perceptions teachers had about the use of English in ASEAN and of their opinions of the way English should be perceived in relation to local languages and regional accents or versions of English. Figure 3 shows the country means of teachers in each of the countries included in the project.


ISBN: 978-602-74576-0-7




The other critical issue this project addressed was the effect of the teaching of English upon perceptions of national identity. We asked a number of questions on this issue as shown in Figure 4, even some about patriotism and loyalty and the learning of English. The strongest set of responses was on the question of whether the teaching of English had not damaged the national identity of people in the country. All groups responded very positively to this opinion with the highest coming from Brunei, Malaysia, Indonesia and Myanmar (three of which were Outer Circle

countries). English was not regarded in any way as a threat to the maintenance of national identity.

The statements on patriotism were worded in a way to relate the teachers' role in teaching English to expressions of teacher patriotism. The first was whether the teachers themselves felt any sense of disloyalty by teaching their students to be very competent in English (orange bars). The teachers thought that they were not in any way being unpatriotic or disloyal in doing so. These scores were uniformly high across all country groups although a little lower in Cambodia and Viet Nam. A contrasting angle was put in the next statement where teachers were asked whether students who did well at English were more likely to be patriotic – perhaps by contributing to their country's productivity in a more positive way (yellow bars). Scores on this statement were somewhat lower and highest in Indonesia and Thailand. Perhaps the need to increase GDP which was expressed in the interview responses (described below) was felt more strongly by Indonesian and Thai teachers. Whether learning English was likely to make students more westernised was put to teachers (grey bars) and this drew the strongest negative responses from teachers – particularly in Brunei, Cambodia, Indonesia and Malaysia. When asked whether their country would be more respected in ASEAN if it had a stronger level of English competence (dark blue bars), scores were uniformly higher across all countries with Indonesia, Myanmar, Thailand and Viet Nam having the higher mean scores. The teachers in each of these countries reinforced in the interviews (see below) their concerns that their country's level of English made them less competitive within ASEAN.

**Conclusion**

ASEAN is a linguistically diverse community with a range of more than 1000 local languages and at least ten national languages. Not one ASEAN nation is linguistically, ethnically or culturally homogeneous and the politics of statehood and independence has focussed strongly upon building cultural unity within diversity, largely through the promotion of the national language as the language of public life and, of course, the language of instruction in schools. According to Ngũgĩ (1986, 109), "the choice of language and the use to which it is put are central to a people's definition of [themselves]". Language has always been at the heart of two contending social forces in post-colonial nations - imperialism and the struggle for liberation from imperialism. Colonising powers usually assigned lower prestige to non-European languages and cultures in the regions they dominated (Migge & Léglise, 2007). The recovery of linguistic and cultural prestige in post-colonial nations has taken decades and still continues. The more recent globalisation of communication has created the necessity for nations to embrace global economic challenges along with their ideological accoutrements, and the language of globalisation has become increasingly English. ASEAN had no alternative but to declare English as the working language of its community of nations, which it did in 2009. Some have argued that the dominance of English globally was in part due to not only colonial but also post-colonial activities of the English speaking world (Pennycook, 1998, Phillipson, 1992).

**References**

Al-Munawwarah, S. F., Anjaniputra, A. G. & Sianipar, R. T. (2015). Students' Motivation in EFL Learning. Paper presented at the Eighth International Conference on Applied Linguistics CONAPLIN, August, Bandung.

ASEAN. (2012). "ASEAN Education Ministers Meeting". Association of Southeast Asian Nations. ASEAN Secretariat. Retrieved on 8-1-2016 from http://www.asean.org/communities/asean-socio-cultural-community/category/asean-education-ministers-meeting-ased

ASEAN Foundation. (2015). Training of ASEAN English language teachers. RELC Language Teaching Institute ASEAN Foundation Project No 005. Retrieved on 8-1-2016 from http://www.aseanfoundation.org/projectgroup/human-resources

ASEAN Secretariat. (1967). The ASEAN Declaration (Bangkok Declaration). ASEAN Secretariat, Jakarta. Retrieved on 6-1-2016 from http://www.asean.org/?static_post=the-asean-declaration-bangkok-declaration

ASEAN Secretariat. (2007). *The ASEAN Charter*. ASEAN Secretariat, Jakarta. Retrieved on 7-1-2016 from http://www.asean.org/storage/images/2015/October/Charter-of-the-ASEAN-Singapore-20-November-2007/7%20ASEAN%20CHARTER%20rev.2%20update%20on%2002%20Oct15%20IJP.pdf


ISBN: 978-602-74576-0-7

ASEAN Secretariat. (2008). *The ASEAN Charter*. ASEAN Secretariat, Jakarta. Retrieved on 9-1-2016 from http://www.asean.org/storage/images/archive/publications/ASEAN-Charter.pdf

ASEAN Secretariat. (2012). *ASEAN 5-Year Work Plan on Education (2011-2015)*. ASEAN Secretariat, Jakarta.

ASEAN Secretariat. (2013A). Secretary General: English is indispensable to ASEAN Community. Address given at the Global Conference on Educating the Next Generation of Workforce: ASEAN Perspectives on Innovation, Integration and English, Bangkok, June. ASEAN Secretariat, Jakarta. Retrieved on 29-11-2013 from http://www.asean.org/news/asean-secretariat-news/item/asean-sg-english-is-indispensable-to-aseancommunityhttp://www.asean.org/news/asean-secretariat-news/item/asean-sg-english-is-indispensable-to-asean-community

ASEAN Secretariat. (2013B). *ASEAN Curriculum Sourcebook*. East-West Center, Nathan Associates Inc. Retrieved on 11-1-2016 from http://library.stou.ac.th/asean/wp-content/uploads/2015/07/ASEAN-Curriculum-Sourcebook_FINAL.pdf

ASEAN Secretariat. (2014). *ASEAN Communication Master Plan*. ASEAN Secretariat, Jakarta.

Baker, W. (2012). English as a Lingua Franca in Thailand: Characterisations and Implications. *Englishes in Practice*: Issue 1, May 2012. University of Southampton.

Belz, Julie A. (2002). Identity, Deficiency, and First Language Use in Foreign Language Education. In Blyth, Carl (ed.), *The Sociolinguistics of Foreign Language Classrooms: Contributions of the Native, Near-Native, and Non-Native Speaker*. Boston: Heinle & Heinle

Brown, H. Douglas. (2000). *Principles of Language Learning and Teaching*. New York: Longman.

Chang, B, M. (2010). The roles of English language education in Asian context. *Pan-Pacific Association of Applied Linguistics, **15***(1), 191-206.

Canagarajah, A. S. (2002). *A geopolitics of academic writing*. Pittsburgh, PA: University of Pittsburgh Press.

Chounlamany, K. & Kounphilaphanh, B. (2011). *New method of teaching? Reforming education in Lao PDR*. Laos: UMEA University Print & Media.

Clark, D. (2012) English – the language of global business. Forbes, 26 October. Retrieved on 9-1-2016 from http://www.forbes.com/sites/dorieclark/2012/10/26/english-the-language-of-global-business/

Crystal, D. (1997). *English as global language*. Cambridge: Cambridge University Press.

Darmi, R. and Albion, P. (2013). English Language in the Malaysian Education System: Its Existence and Implications. 3nd Malaysian Postgraduate Conference (MPC2013), 3-4 July, Malaysia Hall Sydney, New South Wales, Australia. Universiti Putra Malaysia Press.

*Department of Trade and Industry (Philippines). (2014). Understanding the ASEAN Economic Community; A Primer (PDF) (1st ed.).* Retrieved on 8-1-2016 from http://www.dfa.gov.ph/images/PDF/AEC%20Primer_Ebook2.pdf

Dixon, L. Q. (2005). The bilingual education policy in Singapore: Implications for second language Acquisition. *Proceedings of the 4th International Symposium on Bilingualism*, J. Cohen, K. T. McAlister, K. Rolstad, and J. MacSwan (Eds.). Arizona State University, Somerville, MA: Cascadilla Press, 625-635.

Education First. (2014). EF English Proficiency Index 2013. Retrieved on 6-9-2015 from http://www.ef-australia.com.au/epi/

Educational Testing Service (ETS). (2015). Test and Score Data Summary for TOEFL iBT Tests. January 2014 – December 2014, Test Data. Retrieved on 6-9-2015 from https://www.ets.org/s/toefl/pdf/94227_unlweb.pdf

Fatriana, N. (2015). Repetition and code switching as teachers' strategies to assure message delivery in teaching English through the 'Titanium' song. Paper presented at the Eighth International Conference on Applied Linguistics CONAPLIN, August, Bandung.


ISBN: 978-602-74576-0-7

Fen, W. S. (2005). English in Myanmar. *RELC Journal*, ***36***, 93-104.

Gaudart, H. (1987). English Language Teaching In Malaysia: Historical Account. *The English Teacher*. ***XVI***, December. University of Malaya.

Gill, S. K. (2002). *International communication: English language challenges for Malaysia*. Serdang: Universiti Putra, Malaysia Press.

Gill, S. K., & Kirkpatrick, A. (2013). English in Asian and European Higher Education. In C.A. Chapelle (Ed.) *The Encyclopedia of Applied Linguistics*, First Edition. Blackwell. Retrieved on 11-1-2016 from http://onlinelibrary.wiley.com/store/10.1002/9781405198431/asset/homepages/3_English_in_Asian_and_European_Higher_Education.pdf;jsessionid=E6A6498BB65DE1BB2F13A14841A54BD6.f03t01?v=1&s=4c49dc8642113e36a4e3bf192876688ba8addaa2

Graddol, D. (1997). *The Future of English*. London: British Council.

Gupta, A. F. (1994). *The Step-Tongue: Children's English in Singapore*. Clevedon: Multilingual Matters.

Hamied, F.A. (2012). English in Multicultural and Multilingual Indonesian Education. In A. Kirkpatrick & R. Sussex (Eds). *English as an International Language in Asia: Implication for Language* Education (pp. 63 – 78). New York: Springer.

Hoang, V. V. (2013). The Current Situation and Issues of the Teaching of English in Vietnam. *Ritsumeikan Studies in Language and Culture* ***22***(1), 7-18, Ritsumeikan University. Retrieved on 11-1-2016 from http://r-cube.ritsumei.ac.jp/bitstream/10367/4129/1/LCS_22_1pp7-18_HOANG.pdf

Hutabarat, P. (2015). An English immersion program: an investigation of the use of English as a medium of instruction to improve Indonesian student's competitiveness within the global market. Paper presented at the Eighth International Conference on Applied Linguistics CONAPLIN, August, Bandung.

*Huxley, Tim (2010).* "ASEAN's Mixed Bag". *The Diplomat.* Retrieved on 8-1-2016 from http://apac2020.thediplomat.com/feature/asean%E2%80%99s-mixed-bag/

IELTS International English. (2014). Analysis of Test Data. Retrieved on 8-1-2016 from http://www.ielts.org/researchers/analysis_of_test_data.aspx

Igawa K. (2008). English Language and its Education in Cambodia, a Country in Transition, *Shitennoji University Bulletin* [Online]. ***9***, 343-368. Retrieved on 11-1-2016 from http://www.shitennoji.ac.jp/ibu/images/toshokan/kiyo46-20.pdf

Igawa, K. (2010). The Impact of English language education on Cambodian elementary school children: Perceptions of EFL teachers in Cambodia. *Shitennoji University Bulletin* [Online], ***49*** (March) 147-166. Retrieved on 11-1-2016 from http://www.shitennoji.ac.jp/ibu/docs/toshokan/kiyou/49/kiyo49-08.pdf

International Monetary Fund (IMF). (2014). "World Economic Outlook Database, October 2014; Report for Selected Countries and Subjects". *International Monetary Fund (IMF).* Retrieved on 8-1-2016 from http://www.imf.org/external/pubs/ft/weo/2014/02/weodata/weorept.aspx?pr.x=43&pr.y=4&sy=2015&ey=2015&scsm=1&ssd=1&sort=country&ds=.&br=1&c=548%2C566%2C576%2C578%2C536%2C582&s=NGDPD%2CNGDPDPC%2CPPPGDP%2CPPPPC&grp=0&a=

Jayadi, B. (2015). Students' perception of their teacher's skill in managing the EFL classroom and its relationship with students' language learning anxiety. Paper presented at the Eighth International Conference on Applied Linguistics CONAPLIN, August, Bandung.

Jeon-Ellis, G., Debski, R., & Wiggleswort, G. (2005). Oral interaction around computers in the project-oriented CALL classroom. *Language Learning and Technology*, ***9*** (3), 121-145.

*Jones, Michael E. (2004).* "Forging an ASEAN Identity: The Challenge to Construct a Shared Destiny". *Contemporary Southeast Asia* ***26*** *(1): 140–154.* Retrieved on 8-1-2016 from https://www.academia.edu/981239/Forging_an_ASEAN_Identity_The_Challenge_to_Construct_a_Shared_Destiny


ISBN: 978-602-74576-0-7

Kachru, B. B. (1985) Standards, codification and sociolinguistic realism: the English language in the outer circle. In English in the World: teaching and learning the language and literatures, edited by R. Quirk & H. G. Widdowson, Cambridge: Cambridge University Press.

**3.3. *Kachru, B. B. (1986). The power and politics of English. World Englishes, 5(2-3), 121-140.***

Kachru, B. B. (2005). *Asian Englishes: beyond the canon*. New Delhi: Oxford University Press.

Kam, H. W. (2002). English language teaching in East Asia today: An overview. *Asia Pacific Journal of Education*, ***22***, 1-22.

Keuk, C. N. (2009). How intelligible is Cambodian English variety? A look from foreigners' perspectives. *CamTESOL Conference on English Language Teaching: Selected Papers*, ***5***, 23-35. Retrieved on 11-1-2016 from http://www.camtesol.org/Download/Earlier_Publications/Selected_Papers_Vol.5_2009.pdf

Kirkpatrick, A. (2008). English as the official working language of the Association of the Southeast Asian Nations (ASEAN): Features and strategies. English Today, ***24***, 27-34.

Kirkpatrick, A. (2010). *English as a lingua franca in ASEAN*. Hong Kong: Hong Kong University Press.

Langeland, J, E. (2013). *Didactical thinking and post-conflict dilemmas in Cambodian history teaching.* Faculty of Faculty of Humanities and Education. University of Agder.

Ling L. & Hashim, A. (2012). English in Southeast Asia: features, policy and language in use. John Benjamin Publishing, Amsterdam.

Marantika, S. (2015). Teacher social competence in relation to student motivation in learning English. Paper presented at the Eighth International Conference on Applied Linguistics CONAPLIN, August, Bandung.

McDermott, R. (1993). Acquisition of a child by a learning disability. In S. Chaiklin & J. Lave (Eds.), *Understanding practice* pp. 269-305. London: Cambridge University Press.

McLean, J. (2011). "Will ASEAN's New Charter Bring Greater Cooperation?" *Development Asia*. *Asian Development Bank. Retrieved on 8-1-2016 from* http://developmentasia.org/printer-friendly.asp?url=/issue03/cover-03.asp

Migge, B. and Léglise, I. (2007). Language and colonialism. Applied linguistics in the context of creole communities. In Marlis Hellinger and Anne Pauwels (eds.), *Language and Communication: Diversity and Change. Handbook of Applied Linguistics* Berlin: Mouton de Gruyter. 297-338. Retrieved on 3-1-16 from https://hal.archives-ouvertes.fr/halshs-00292388/document

Ministry of Education, Sultanate of Brunei Darussalam. (1972). Report of the Brunei Education Commission. Brunei: Ministry of Education.

Morgan, B. (2007). *Post-structuralism and applied linguistics: Complementary approaches to identity and culture in ELT*. In J. Cummins & C. Davison (Eds.), International handbook of English language teaching pp. 1033-1052. New York: Springer.

Musthafa, B. (2001). Communicative Language Teaching in Indonesia: Issues of Theoretical Assumptions and Challenges in Classroom Practice. *Journal of Southeast Asian Education.* ***2***(2).

**4. Nam Nguyen Danh & Oanh Pham Thi Kieu. (2015) Enhancing the effectiveness of teaching mathematics in English at the universities of education. Paper presented at National Conference for Young Lecturers in the Universities of Education, May. Retrieved on 5- 12-2015 from http://www.researchgate.net/profile/Nguyen_Nam11/publications**

Noor Azam Haji-Oathman. (2005. Changes in Linguistic Diversity of Negara Brunei Darussalam. Unpublished PhD dissertation, University of Leicester.

Norton, B., & Toohey, K. (2001). Changing perspectives on good language learners. *TESOL Quarterly*, ***35***(2), pp 307-322.

Ngũgĩ, wa Thiong'o. (1986). *Decolonizing the mind: The politics of language in African literature*. London: James Curry.


ISBN: 978-602-74576-0-7

Nunan, D. (2003). The Impact of English as a Global Language on Educational Policies in the Asia-Pacific Region. *TESOL Quarterly*. **37**(4), Pp. 589-613.

Pearl, L. (2015). "O-Level results." *Straits Times*, January 12. Retrieved on 8-1-16 from http://www.straitstimes.com/singapore/education/o-level-results-833-of-students-score-5-or-more-passes-best-performance-in-at

Peirce, B. N. (1995). Social Identity, Investment, and Language Learning. *TESOL Quarterly*, ***29***, pp 9–31.

Pennycook, A. (1998). *English and the discourses of colonialism: The politics of Language*. London: Routledge.

Phillipson, R. (1992). *Linguistic Imperialism*. Oxford: Oxford University Press.

Pinnock, H. (2009). *Language and education: the missing link.* CfBT, London.

Quirk, R., Greenbaum, S., Leech, G. & Svartvik, J. (1972). *A grammar of contemporary English.* Harlow, Longman.

Richards, J. C. (2002) *Methodology in Language Teaching: An Anthology of Current Practice* Cambridge: Cambridge University Press.

RBT News, (Radio Television Brunei). (2015). Brunei-Cambridge G.C.E. 'A', 'AS' and 'O' Level Examinations Results. February 9. Retrieved on 8-1-2016 from http://www.rtbnews.rtb.gov.bn/index.php?option=com_content&view=article&id=25625%3Abrunei-cambridge-gce-a-as-and-o-level-examinations-result&Itemid=106 http://cdn.cfbt.com/~/media/cfbtcorporate/files/research/2014/r-brunei-full-2014.pdf

Severino, R. (2007). "The ASEAN developmental divide and the initiative for ASEAN integration." *ASEAN Economic Bulletin* ***24***(1), 35-44.

Souriyavongsa, T., Rany, S., Abidin, M. J. Z. & Mei, L. L. (2013A). Factors causing students' low English language learning: A case study in the National University of Laos. *International Journal of English Language Education*, ***1***(1), 179-192.

Souriyavongsa, T., Abidin, M. J. Z., Rany, S., Mei, L. L. & Aloysius, I. B. (2013B). Investigating Learning English Strategies and English Needs of Undergraduate Students at the National University of Laos. *English Language Teaching*, ***6***(10), 57-71.

Tin, T. B. (2013). Learning English in the periphery: A view from Myanmar (Burma). *Language Teaching Research*, ***18***(1) 95-117. University of Auckland, New Zealand. SAGE Press.

Tsui, A. B. M. (2007). Complexities of Identity Formation: A Narrative Inquiry of an EFL Teacher. *TESOL Quarterly*, ***41***, pp. 657–680.

United Nations. (2012). "United Nations Statistics Division - Demographic and Social Statistics." United Nations Statistics Division - Demographic and Social Statistics. Retrieved on 8-1-2016 from http://unstats.un.org/unsd/demographic/products/socind/

Varghese, M., Morgan, B., Johnston, B. and Johnson, K. (2005). Theorizing Language Teacher Identity: Three Perspectives and Beyond *Journal of Language, Identity & Education* ***4***(1), pp.21-44.

Wa-Embaleka, S. (2014A). English teachers' perceptions of the mother tongue-based education policy in the Philippines. *European Journal of Research and Reflection in Educational Sciences*, ***2***(4), 17-32.

Wa-Embaleka, S. (2014B). Teaching English to speakers of other languages: The case of the Philippines. *International Journal of Academic Research in Progressive Education and Development*, ***3***(3), 64-78.

Waterworth, P. G. (2015A). Teaching English in ASEAN: the voices of English teachers in ASEAN nations. Keynote address at the Eighth International Conference on Applied Linguistics CONAPLIN VIII, August 2015

Waterworth, P. G. (2015B). The academy of research: creating a sustainable future through research and understanding the challenges of research. *Creation of the Future and Challenges in Sustainable Research*. Keynote address at the First International Conference on Research in Education, Arts, Management and Science (I-CREAMS), November. Roi Et Rajabhat University, 48-57.


ISBN: 978-602-74576-0-7

Wenger, E. (1998). *Communities of Practice: Learning, Meaning and Identity* Cambridge: Cambridge University Press.

Williams, E. and Williams, A. (2007). *ESOL and EFL: An unhelpful distinction?* A report commissioned by CfBT Education Trust, CfBT, London.

Winchester, S. (1998) *The Surgeon of Crowthorne.* Ringwood: Penguin.

Wongsothorn, A., Hiranburana, K. & Chinnawongs, S. (2003). English language teaching in Thailand today. In H. Wah Kam and Wong, R. L. (Ed.), *English language teaching in East Asia today: changing policies and practices*. Singapore: Eastern Universities Press, 441-453.

**Interviewees**[†]

Banoy S, M, 32, Primary, Advanced C1-2, Philippines

Dian S, M, 48, Junior Secondary, Intermediate B1, Indonesia

Gerna E, F, 30, Junior Secondary, Upper Intermediate B2, Philippines

Hai T, F, 26, Primary, Viet Nam

Kay K, F, 33, Primary, Upper Intermediate B2, Myanmar

Kurnia A, M, 46, Primary, Upper Intermediate B2, Brunei

Lan T, F, Senior Secondary, Upper Intermediate B2, Viet Nam

Madihah A, F, 36, Senior Secondary, Upper Intermediate B2, Brunei

Marla T, F, 43, Senior Secondary, Advanced C1-2, Myanmar

Maya L, F, Junior Secondary, Advanced C1-2, Philippines

Nanda H, F, 46, Junior Secondary, Upper Intermediate B2, Myanmar

Nu T, F, 28, University, Viet Nam

Ollie D, F, Intermediate B1, Cambodia

Phloi P, F, 52, Senior Secondary, Upper Intermediate B2, Thailand

Pichai B, M, 43, Primary, Intermediate B1, Thailand

Prija B, F, 29, Primary, Intermediate B1, Thailand

Rina J, F, 46, Junior Secondary, Intermediate B1, Indonesia

Sap B, M, 38, Senior Secondary, Upper Intermediate B2, Thailand

Siti M, F, 36, Secondary, Advanced C1-2, Brunei

Thi W, F, 37, Primary, Advanced C1-2, Myanmar

Tika H, F, 60, Primary, Upper Intermediate B2, Indonesia

Yuni l, F, 30, Secondary, Advanced C1-2, Brunei

Zati B, F, 35, Senior Secondary, Intermediate B1, Malaysia

[†] Interviewees were given a pseudonym to protect their identities.


ISBN: 978-602-74576-0-7

# PARTIAL CREDIT MODEL (PCM) FOR ITEM RESPONSE THEORY: IMPROVING TEACHER'S COMPETENCE IN LANGUAGE LEARNING ASSESSMENT

BENIATI LESTYARINI

*Indonesian Language and Literature Study Program, Yogyakarta State University, DIY, Indonesia*

Abstract

This research aims to develop the language assessment model that integrate dichotomous and polytomous item's scale by Partial Credit Model (PCM). This model is useful as an alternative way for teacher to assess student's language competence especially in reading which demands rating score instead of dichotomous. This is a research and developmental study that involve five (5) language teachers of Junior High School in Yogyakarta, 164 students from one school for the small-scale product tryout and 711 students from another five for the large-scale product tryout that become participant of the test selected using the cluster proportional random sampling technique. QUEST program is become a software to analyze the data from the test. The research findings are as follows. 1) The PCM model for reading assessment development procedure is conducted by procedural model consisting of preliminary study, prototype product development, product validation, and product review. 2) The prototype product is a reading comprehension assessment with PCM model which is developed through Focus Group Discussion (FGD) involving curriculum, language learning, and evaluation experts, as well as Bahasa Indonesia of junior high school teachers. 3) The developed items with PCM model matched with the Rasch model (IRT 1 PL) based on the MNSQ INFIT values (0,77-1,30) both in the small and large scale product tryout. The item difficulty level was based on the size of the delta or the threshold in the range of ± 2,00. The test reliability increased from 0,97 to 0,99. The guidelines for using the model is made in order that teacher can independently use the model.

Keywords: *Partial Credit Model, Teacher's competence, Language Assessment, Reading*

## 1. Introduction

The mastery of the concept and practice of instructional planning, acting, and evaluation is the main demand of teacher's competence. In many teacher training, learning resources, media and strategy are given to support the competence in planning and doing innovative instruction. But unfortunately, this is not completed by how to do the assessment.

Assessment is defined as a very general term that describes the many techniques that we have use to measure and judge student's behavior and performance. In the context of evaluation, it is related to an activity to judge the student. Therefore, the result of assessment is very important in determining the achievement of the curriculum target.

The assessment method and model in language is more complicated than in science. In writing for example, teacher should be able to build a rubric that measurable, objective, and valid to measure the student's writing competence. Also in reading, teacher have to know in what position do the student's level of comprehension, what kind of rubric should be build and what kind of instrument they can use to assess the level of comprehension.

Subjectivity is very sensitive case which can intrude the language assessment result. It is true that in measuring writing competence for example, there is no true or false answer but teacher can use rating scale model. This case also happens in reading. When reading a novel, teacher may decide true or false for factual comprehension, but to measure the interpretation and appreciation of the novel teacher need rating scale. This is because the student's interpretation may be more than one single answer. This is become the focus of discussion with some language teachers especially Bahasa Indonesia teacher. Most of them are difficult to propose their reason and answer when they are asked about what kind of rubric of assessment they are usually used and how they can decide student's score.

In the field of instructional evaluation, it is set out some software for teacher to evaluate learning achievement. ITEMAN software for example, can be used easily by teacher. However, this software use the classical test theory paradigm which present only dichotomous scale, which is means there are just two score, false (zero/0) and true (1). In language, this kind of scale cannot elaborate the pursuing competence in curriculum. The model should be able to analyze essay question which is often used as a test in language.


ISBN: 978-602-74576-0-7

PIRLS and PISA are two international institutions that held student's literacy measurement with Partial Credit Model (PCM). By this model, the student's competence pursuing both dichotomous and polytomous item scale can be measured objectively. The key here is by giving some possibility answer for polytomous item.

The assessment model by partial credit in this research is set out and developed by teachers and researcher. How is the procedure of the development? How to prove the validity of the developed model? These are the focus of this research.

There are three points related to assessment stated by Andrada (2009: 8) that: 1) the assessment defines acceptable evidence of student's attainment of desired results, 2) assessment determines authentic performance tasks that the students is expected to do to demonstrate the desired understanding, 3) assessment defines the criteria against which the student's performance or products shall be judged. Generally, the process of assessment involve four steps, they are identifying what will be assess, collecting evidence, analyzing evidence, and making decision of assessment result (Caldwell, 2008: 3). The identification process engage an activity to propose question related with variable that will be measured, gather many information accurately, carefully, and comprehensively, appropriate with the need of the assessment. In analyzing process, it is definitely based on the concept or theory to work with the data. After this, the inference can be made as a final result.

Assessment paradigm is always changing, from psychometry in the past to the model of educational assessment, from test and cultural information to the cultural assessment itself (Gipps, 1994: 1). Recently, it is familiar to know criterion-based assessment, formative assessment, performance assessment, alternative assessment, authentic assessment, etc. However, conceptually, there is a line that relates all those kinds of assessment, that it must support learning process, not only indicate the learning result. From assessment result, teacher can identify the student's progress time by time and also the final result which reflect the competence achievement.

The importance of assessment as an integral part to improve the quality of learning invites some institutions to build the evaluation center. They also develop an instrument to support the need of evaluation and assessment both in national standard as in national test and international standard as it developed by PISA, PIRLS, NAEP, SAQMEQ, etc. No Child Left Behind (NCLB) also held some program to solve education problem, improve the quality of learning, and also held some assessment in some countries (Olivert, 2007: 1; Lawton, 2006: 3; Abernathy, 2007: 2)

Reading is not a simple activity. It is involve a complex multi-facet activity, from making meaning of word to the creating new idea as the continuing process of comprehension. If teacher do not recognize how to assess reading comprehension, there will be a missing thing that important to be assessed.

The reading comprehension is defined as "the process of simultaneously extracting and constructing meaning through interaction and involvement with written language" (RAND Reading Study Group, 2002: 11). The words 'extracting' and 'constructing' here are used to emphasize the importance of text as the determinant of reading comprehension. This is because the reading activity engages three elements, they are: 1) reader, who is doing the comprehending activity, 2) text, that become the main material to be comprehended, and 3) activity, where the comprehension is become part of it.

The development of reading concept makes some reading experts more aware that reading is important and complext (Caldwell, 2008: 2). The comprehension process is not simple (Kintsch & Kintsch, 2005: 7). The reader is actively involve in simultanously process. Firstly, reader is coding both perceptual and conceptual. This process engages making meaning to the words and relates them to the unit of idea or proposition. Then reader connect those unit of ideas, give the meaning of detail information, and build the microstructure and macrostructure as defined as "the mental representation that the reader construct of the text". This comprehension make the reader can identify the important ideas which is then being integrated with the prior knowledge and build the mode of situation. This mode of situation is idiosincretic for each reader that can be used for learning in other situation.

The domain of revised Bloom's taxonomy (Dettmer, 2006) include cognitive, afective, sensorimotor, and social. The basic learning is based on realism that emphasize to what should be known by learner. The cognitive level include 'to know' and 'to comprehend'. The applied learning is based on pragmatism, is that emphasize to what can be learned by learner. This level include activity 'to apply', 'to analyze', and 'to evaluate'. Whereas the ideational learning is based on idealism that include activity to synthesize, to imagine, and to create. This classification is become more complext and


ISBN: 978-602-74576-0-7

comprehensive in line with the awareness to the process of acquaring knowledge.

The component of assessment in PISA also become part of "proficiency of reading" which is used by PIRLS. Student must be able in getting the explicit information, making inference, interpreting and integrating the idea and information, and examining and evaluating the content, language, and textual element. Here is the list of PIRLS reading comprehension component.

Table 1. Component of reading comprehension by PIRLS

| Comprehension process | Examples of tasks | Items |
|---|---|---|
| Focus on and retrieve explicitly stated information | Looking for specific ideas.<br>Finding definitions or phrases.<br>Identifying the setting for a story (for example, time, place).<br>Finding topic sentence or main idea (explicitly stated) | 20% |
| Make straightforward inferences | Inferring that one event caused another.<br>Identifying generalization in text.<br>Describing the relationship between characters.<br>Determining the referent of a pronoun. | 30% |
| Interpret and integrate ideas and information | Determining the overall message or theme.<br>Contrasting text information.<br>Inferring a story's mood or tone.<br>Interpreting a real-world application of text information. | 30% |
| Examine and evaluate content, language, and textual elements | Evaluating the likelihood that the events described could happen.<br>Describing how the author devised a surprise ending.<br>Judging the completeness or clarity of information in text.<br>Determining the author's perspectives. | 20% |

One of modern concept in measurement is Item Response Theory (IRT). In this concept, there are three models of logistic parameter. One logistic parameter model (1 LP), also known as Rasch Model (Hambleton & Swaminathan, 1985: 39), analyze the item based on item's difficulty level. Two logistic parameter model (2 LP) consider item's difficulty level and index separation. Whereas three logistic parameter model consider the guessing factor in the case of multiple choice test. Here, sometime student just guess the answer without really know the answer. The mathematical formula for those model are below (Hambleton & Swaminathan, 1985 :49).

Table 2. Three models of logistic parameter in IRT

| Logistic parameter model | formula |
|---|---|
| One logistic parameter (1 PL) | $\mathrm{Pi}(\theta) = (1 + \mathrm{e}^{-\mathrm{D}(\theta-\mathrm{bi})})^{-1}$ ……(1) |
| Two logistic parameter (2 PL) | $\mathrm{Pi}(\theta) = \left(1 + \mathrm{e}^{-\mathrm{Dai}(\theta-\mathrm{bi})}\right)^{-1}$…….....(2) |
| Three logistic parameter (3 PL) | $\mathrm{Pi}(\theta) = \mathrm{ci} + (1-\mathrm{ci})\left(1 + \mathrm{e}^{-\mathrm{Dai}(\theta-\mathrm{bi})}\right)^{-1}$.(3) |

Reliability estimation in IRT can be based on item called item's index of separation and test participant (case/person) called person index separation. The higher this item's index of separation the more reliable and fit the item, in Rasch Model (RM), Partial Credit Model (PCM), or Rating Scale Model (RSM). The higher the person index separation the more consistent the item to measure the test participant. The person index of separation in Classical Test Theory is reliability itself, that are Alpha Cronbach reliability for polytomous scale and Kuder-Richardson-20 for dichotomous. The items index separation is called sample reliability and the person index separation is called test reliability (Keeves & Master, 1999: 96). The internal


ISBN: 978-602-74576-0-7

consistency in some output also reflect the reliability of the test.

The use of Classical Test Theory is still being used for some necessity although the modern theory such as Item Response Theory/IRT is become more popular. The assumption and the weakness of Classical Test Theory are: the item's difficulty and index of separation are depend of the test participant, the capability estimation is based on the item, and error item's estimation is occur for all test participant. There is no information about response for each test participant. In IRT, these errors can be eluded.

Item's type can be in multiple choice and essay. In multiple choice question, there are two score (dichotomous) with one (1) for true answer and zero (0) for false one. Essay question type can use rating scale depend on the scoring. In Rasch Model, the is model of analysis with polytomous scale which is called Partial Credit Model (PCM). Master and Wright (Ostini & Nering, 2006: 26) state that "PCM is suitable for use with any test format that provides a finite set of ordered response option". PISA also use this model for item analysis. The important thing to use this model is test maker must give some possible answer as a practical instruction for scoring (OEDC, 2009: 253).

## 2. Research Methodology

This is a research and developmental study by Borg and Gall design. The procedure are: 1) preliminary study involve literature study on reading assessment and PCM, field study by interview and FGD, and curriculum discussion with experts; 2) product development by designing prototype of product, include question framework, question, key answer by Partial Credit Model; 3) product validation, by small-scale product tryout and large-scale product tryout; 4) product dissemination. Five teachers of Bahasa Indonesia of junior high school in Yogyakarta are being involved. There are 164 students of SMP 12 Yogyakarta as participant in small-scale product tryout while ± 711 students of SMPN 8 Yogyakarta, SMPN 2 Yogyakarta, SMPN 4 Yogyakarta, SMPN 14 Yogyakarta, and SMPN 11 Yogyakarta become participant in large-scale product tryout. They are selected by cluster proportional random sampling.

The research validity is reached logically and empirically to the developed assessment model. The item calibration is based on Rasch Model. Item analysis is done by Quest software.

## 3. Result Study

### 3.1. Preliminary Study

In curriculum development, the two major things that have to be focused on are 1) the conceptual framework of material and 2) the appropriateness of competence for each level of education. Both of them can build the continuous competence in continuum learning so that it can reach the level by content and the level by context.

From the discussion about reading competence, there are some aspects that have to be developed, they are: 1) comprehending the implicit information, 2) predicting content/story before or after paragraph both in fiction or nonfiction which involve cognitive level 'to imagine' and 'to create', 3) identifying the table/diagram.

### 3.2. The development of prototype of assessment model

The preliminary study result is become the base for developing question framework. It contains the reading comprehension as a cognitive level of comprehension. There are thirty (30) developed items where 20 items are multiple choice question and 10 items are essay question. There are 11 short text included. All those development is based on the suggestion from teachers in consideration of time and possibility to do the test. The time allocation for the test is 80 minutes, it is 5 minutes for preparation, 20 minutes for multiple choice question (1minute/item), 20 minutes for essay question (2 minutes/item), 33 minutes for reading text (3 minutes/text), and 2 minutes left for collecting answer sheets.

## 4. Product tryout

### 4.1. Data from small-scale product tryout

The output data of QUEST program shows that there are 164 test participant and 30 analyzed items. Probability level is 0,5 matched with Likelihood Maximum. No case, item, or deleted anchor in analysis. Anchor or common item is item in the two sets of analysis so that it is possible to get the person index of estimation and item index of difficulty. The reliability index and INFIT MNSQ can be visualized as follow.


ISBN: 978-602-74576-0-7

```
QUEST: The Interactive Test Analysis System
------------------------------------------------------------------------------
Item Estimates (Thresholds)                              1/ 6/11 21: 4
all on all (N = 164 L = 30 Probability Level= .50)
------------------------------------------------------------------------------
 Summary of item Estimates
=========================
Mean                  .00
SD                   1.10
SD (adjusted)        1.08
Reliability of estimate   .97
  Fit Statistics
===============
  Infit Mean Square        Outfit Mean Square

   Mean    1.00             Mean    1.00
   SD       .04             SD       .07

    Infit t                 Outfit t

   Mean     .02             Mean     .05
   SD       .72             SD       .51
  0 items with zero scores
  0 items with perfect scores
```

Figure 1. Output Item Estimates (Thresholds) in small-scale product tryout

The reliability index above is 0,97. Reliability based on item estimation (thresholds) as stated by Wrigh & Master (1982) is called sample reliability. The higher the index of sample reliability the more reliable the item test. If it happens in the opposite way, it means that the sample cannot give the expected information.

The Mean of INFIT MNSQ shows 1,00 with SD 0,04. It means all items fit the Rasch model (based on the theory is 0,77-1,30).

**4.2. Data from large-scale product tryout**

The item estimates (thresholds) in large-scale product tryout is shown below

.

```
QUEST: The Interactive Test Analysis System
------------------------------------------------------------------------------
Item Estimates (Thresholds)                              16/ 7/11 11:39
all on all (N = 711 L = 30 Probability Level= .50)
------------------------------------------------------------------------------
Summary of item Estimates
=========================
Mean                  .00
SD                   1.17
SD (adjusted)        1.17
Reliability of estimate   .99
 Fit Statistics
===============
 Infit Mean Square        Outfit Mean Square
   Mean    1.00             Mean    1.03
```


ISBN: 978-602-74576-0-7

SD .08 SD .18
Infit t Outfit t
Mean -.18 Mean .14
SD 2.28 SD 2.07
0 items with zero scores
0 items with perfect scores

Figure 2. Output Item Estimates (Thresholds) of large-scale product tryout

The reliability of estimate in figure 2 is 0,99. In small-scale product tryout it is 0,97 which is means that it is increase 0,02. It indicates that the quality of the developed model is better because the sample fit with the item. The mean of INFIT MNSQ is 1,00 with SD 0,08 that reflect the fitness between item and Rasch model.

The feasibility of the test is using Bartlett's test of sphericity or Kaiser-Meyer-Olkin (KMO). The correlation between variable in Barlett"s test of sphericity is significant if the KMO index is 0,5 or more (Singgih Santoso, 2010: 73). In small-scale product tryout, the index is 0,546 while in large-scale is 0,791. From the INFIT MNSQ, all items fit with model, in the range of 0,77-1,30.

**5. The analysis of item's difficulty index with Rasch Model/IRT 1 Parameter**

The output in Quest can illustrate the item's difficulty index in CTT (Classical Test Theory) and IRT (Item Response Theory). In CTT it is reflect by the percent on output Item Analysis Results for Observed Responses. In Rasch Model, it is showed by threshold or delta in the range of ± 2,00.

Table 3. Comparison of delta/thresholds in small and large scale product tryout

| No of item | Index of delta/thresholds In small-scale tryout | Index of delta/thresholds In large scale tryout |
|---|---|---|
| 1 | -0,26 | -0,10 |
| 2 | 2,26* | 2,36* |
| 3 | -1,43 | -2,05* |
| 4 | 0,35 | 0,19 |
| 5 | -0,71 | -0,58 |
| 6 | -0,95 | 1,00 |
| 7 | 0,61 | 1,14 |
| 8 | -0,52 | -1,77 |
| 9 | 0,14 | 0,14 |
| 10 | 2,62* | 2,18* |
| 11 | 0,83 | 1,59 |
| 12 | 2,80* | 2,57* |
| 13 | 0,48 | 0,62 |
| 14 | -0,29 | 0,01 |
| 15 | -0,29 | -0,72 |
| 16 | -0,59 | -0,30 |
| 17 | -0,06 | 0,74 |
| 18 | -0,51 | -0,61 |
| 19 | -0,99 | -1,46 |
| 20 | -0,24 | -0,12 |
| 21 | 0,48 | 0,63 |
| 22 | -0,11 | -0,05 |
| 23 | -0,03 | -0,98 |
| 24 | -0,34 | -0,48 |
| 25 | -0,16 | 0,23 |
| 26 | -0,65 | -1,16 |
| 27 | 0,80 | -0,55 |


ISBN: 978-602-74576-0-7

| | | |
|---|---|---|
| 28 | -0,86 | -0,65 |
| 29 | 0,56 | -0,23 |
| 30 | -0,93 | -1,61 |

note: the delta/thresholds with (*) is not in the range of ± 2,00

Items that are not in the range ± 2,00 are item 2 (2,36), item 3 (-2,05), item 10 (2,18), and item 12 (2,57). Although there are some items reflect the high item difficulty but it is not significant. In large scale product tryout, the difficulty index is decrease.

**6. Partial Credit Model for developing the scoring**

The type of the question in this developed assessment model are multiple choice and essay. The multiple choice question has the high objectivity which can illustrate the student cognitive achievement. The essay question possible in giving the student a chance to state their idea and answer based on their own words. Here, the test maker (teacher) can see the riil competence of the student and what level of comprehension they have.

In the multiple choice question, scoring is 0 false and 1 for true answer. In objective essay question, scoring is 0 for false, 1 for almost true, and 2 for true answer.

Here is the example of key answer by partial credit model for item number 4.

4. Apakah ide yang disampaikan penulis sesuai dengan kondisi remaja dan dunianya sekarang? Jelaskan menurut pemahaman Anda!
   Jawab: …….....
   Key answer

| | | |
|---|---|---|
| 4 | Full credit<br>- Ya, ide penulis <u>sesuai</u> dengan kondisi remaja sekarang karena secara <u>psikologis</u>, remaja mengalami <u>masa perubahan/transisi</u> yang membuat mereka <u>mudah berubah dan berkembang secara dinamis</u><br>Partial credit<br>- Ya,<br>- Ya, ide penulis sesuai<br>No credit<br>- Tidak,<br>- Jawaban lain atau Kosong | 2<br><br><br><br>1<br><br>0 |

Figure 3. Example of item with PCM (ITEM NO 4

The item above (number 4) is one of example of item test that use text 1 which ask for student's comprehension based on their own interpretation. That item can be answered slightly without any explanation or answered logically by stating some of keywords which is underlined in the key answer. Student who propose the answer matched with keywords get 2 point (full credit), student who answer "ya" without any explanation get 1 point (partial credit), while student with false or no answer get 0. By this model of assessment, the student capability in comprehending and interpreting the text can be elaborated. Besides, the teacher still has an objectivity in judging and assessing the student.

**7. Conclusion**

This research can be concluded as follow.

1) The PCM model for reading assessment development procedure is conducted by procedural model consisting of preliminary study, prototype product development, product validation, and product review.

2) The prototype product is a reading comprehension assessment with PCM model which is developed through Focus Group Discussion (FGD) involving curriculum, language learning, and evaluation experts, as well as Bahasa Indonesia of junior high school teachers.

3) The developed items with PCM model matched with the Rasch model (IRT 1 PL) based on the MNSQ INFIT values (0,77-1,30) both in the small and large scale product tryout. The item difficulty level was based on the size of the delta or the threshold in the range of ± 2,00. The test reliability increased from 0,97 to 0,99.


ISBN: 978-602-74576-0-7

**References**


Abernathy, S. F. (2007). *No Child Left Behind and the public school*. Ann Arbor: The University of Michigan Press.

Andrada, L. (2009). The 2010 secondary education curriculum in PEMEA, *The Assessment Handbook: Continuing Education Program Vol 1* (pp. 4-11). Manila: PEMEA.

Cladwell, J. S. (2008). *Reading assessment: A primer for teacher and coach*. New York: The Guilford Press.

Dettmer, P. (2006). New Blooms in established fields: Four domains of learning and doing. *Roeper Review*, 28, 2 (70-78).

Gipps, C. V. (1994). *Beyond testing: Towards a theory of educational assessment*. London: Falmer Press.

Hambleton, R. K. & Swaminathan, H. (1985). *Item response theory: Principal and application*. New York: Kluwer-Nijhoff Publishing.

Keeves, J.P & Master, G.N. (1999). *Advances in measurement in educational research and assessment*. Amsterdam: Pargamon, Animprint of Elsiever Science.

Kintsch, W. & Kintsch, E. (2005). Comprehension. Dalam S.G. Paris & S.A. Stahl (Eds). *Children's Reading Comprehension and Assessment*. Mahwah, NJ: Erlbaum.

Lawton, S. B. (2006). NCLB and diversity in school. Dalam F. Brown & R.C. Haunter. *No child left behind and other federal program for urban school district.* New York: Elsevier, Ltd.

OECD. (2009). *Take the test: Sample questions from OEDC's PISA assessment*. OECD Publishing.

Olivert, D.P. (Ed). (2007). *No child left behind act: Text, interpretation and change*. New York: Nova Science Publisher, Inc.

Ostini, R. & Nering, M. (2006). *Polytomus item response theory models*. New York: SAGE Publication, Ltd.

RAND Reading Study Group. (2002). *Reading for understanding: Toward and R&D program in reading comprehension*. Pittsburg: RAND.

Singgih Santoso. (2010*). Statistik multivariat: Konsep dan aplikasi dengan SPSS*. Jakarta: PT Elex Media Komputindo.



ISBN: 978-602-74576-0-7

# THE EFFECT OF THE MIND MAPPING METHODS ON STUDENTS UNDERSTANDING OF THREE-DIMENSIONAL GEOMETRIC

Satrianawati
PGSD lecturer of Ahmad Dahlan University

Profesional teacher or lecturer always do research in their class. It can be reflection for their interaction. Profesional teacher or lecturer is also using methods every teach of students. Many ways to know understanding of students, one of them is mind mapping methods. Mind mapping is one of the most methods that help students building their concept of the subject matter that they had learned. This research not only using one methods but also many methods. Mind mapping methods used in the end learning mathematic process. Using mind mapping methods help the students and teachers in seeing ability of them. Students and teacher can know their ability in mathematics learning. Teacher or lecturer get information about how to know students understanding of topic. The topic in this research was of three-dimensional geometry. three-dimensional geometry taken seven of three-dimensional geometry shapes. It is cube, prism, beam, pyramid, cylinder, cone, and sphere.

This research aimed to know how far the students get the point of the three-dimensional geometry shapes. This research had done evaluation in October 2015 for three weeks. to use mind mapping methods took the time more less 20 minutes. The teacher gave a paper, one paper of one students. In paper the students wrote their understanding of topic three-dimensional geometry shapes with close book, only remember, and writing in their paper. This research was conducted on the five semester student in class A. the results of this research is measured by counting the number of students who can make a mind mapping in accordance with the indicator set. This research have divide a category of effect mind mapping methods in three categories. It is good, enough, and bad.

The results showed that mind mapping methods had effetcs on students understanding of three-dimensional geometric in class A five semester with good categories had 16 people, enough categories had 23 people, and bad categories had 5 people. Accordingly the result, lecturer can know how many students understanding the topic and do interaction with them about what they know. It can be reflection about interaction teaching and learning in next class.

Keyword: mind mapping, geometry, understanding of students

## Introduction

In globalization era, all people busy with their activities, how about students in class? Did they have activities to increase their competence? Did they enjoy their study? Did they doing interaction to each other about the subject matter? Could the lecturer make activity of students in class more active? Many questions to teacher and lecturer before they go to class. Bacause students activity in class should be enjoy, creative, innovative, and have new insight. But sometimes, students was bored in class. To prevent the condition teaching and learning process in class should make active all students. So, the government always follow about education especially teaching and learning process was connected by curriculum. Because to encourage the activities of students must start by teacher, to increase competence teacher, the teacher must do research minimaly in their class.

In addition, modern era make education content knowledge be education content research. As a teacher or a lecturer always do research in their class. It can be reflection for their interaction. Teacher or lecturer is also using methods every teach of students. Alike it, research is done by lecturer in class accordance with subject matter that it takes. Many cases to do in class, lecturer in mathematic is also do research to prepare teacher in primary education be active and creative. Therefore before doing evaluation, learning used discussion methods to make students more active in their activity. The class was opened by teacher with pray together and continue presentation and discussion each other team. The subject matter had been prepare by student teams. Each team had different topic to give other students in class for their discussion. So, this discussion methods able to facilitate many students in class.

Many methods can be applied to know the understanding of students. Subject matter evaluation in this research used mind mapping methods. The reason chosen mind mapping because mind mapping given information to teacher or lecturer about how to know students understanding of topic. In addition, mind mapping is coherent by subject matter. In three-dimensional geometry learning always used picture and saw three-dimensional geometry shape. So, The students was called understanding of three-dimensional geometry if they make mind mapping appropriated by indicator settled. Many ways to know understanding of students, one of them is mind mapping methods. Mind mapping is one of the most methods that help students building their concept of the subject matter that they had learned. This research not only using one methods but also many methods. Mind mapping methods used in the end learning mathematic process. Using mind mapping methods help the students and teachers in


ISBN: 978-602-74576-0-7

seeing ability of them. Students and teacher can know their ability in mathematics learning. Teacher or lecturer get information about how to know students understanding of topic. The topic in this research was of three-dimensional geometry. three-dimensional geometry taken seven of three-dimensional geometry shapes. It is cube, prism, beam, pyramid, cylinder, cone, and sphere. Thus, research would to describe how to measure understanding of students in three-dimensional geometry subject matter.

This research aimed to know how far the students get the point of the three-dimensional geometry shapes. This research had done evaluation in October 2015 for three weeks. to use mind mapping methods took the time more less 20 minutes. The teacher gave a paper, one paper of one students. In paper the students wrote their understanding of topic three-dimensional geometry shapes with close book, only remember, and writing in their paper. This research was conducted on the five semester student in class A. the results of this research is measured by counting the number of students who can make a mind mapping in accordance with the indicator set. This research have divide a category of effect mind mapping methods in three categories. It is good, enough, and bad.

**Research Methods**

Methods of this research was quantitative description. The result of student data was analyzed by counting. Sugiyono (2016) said that there are three function in research, such as: need to know, need to do, and need to choose. The more function of this research refers to "need to know and need to do". It is evalution research to reflection about understanding of students in three-dimensinal geometry matter. The population was 45 students of class A five semester of primary school education in Universitas Ahmad Dahlan Yogyakarta. All students in class A five semester be object in this research.

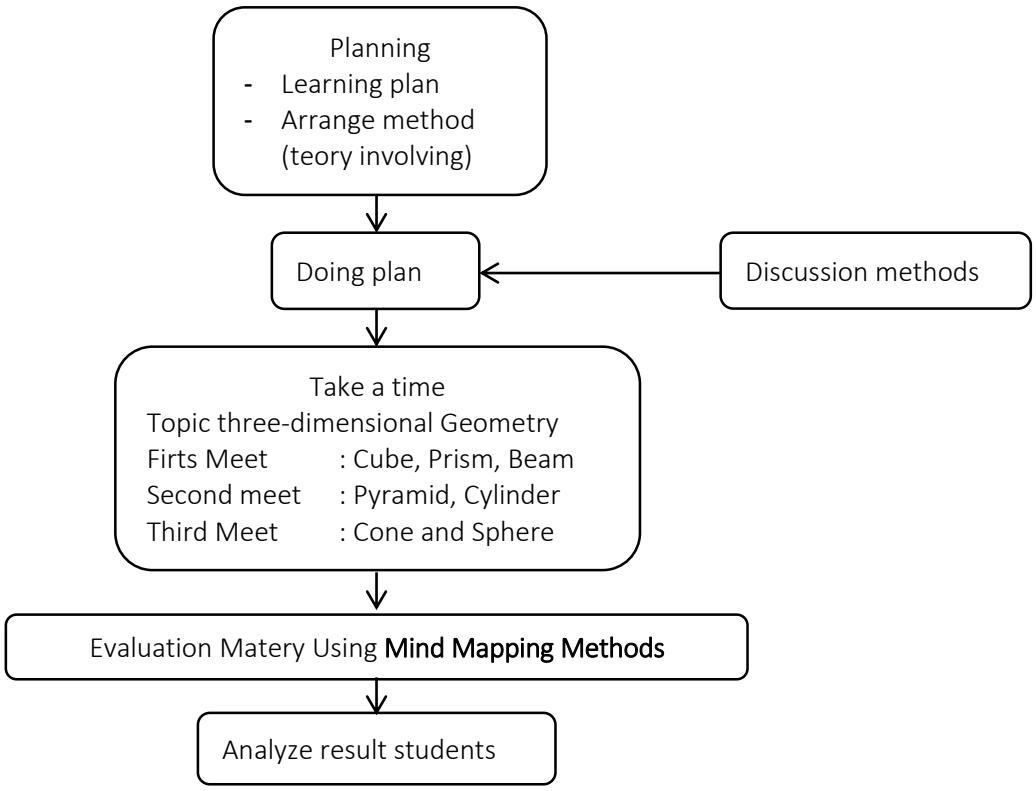



**Figure 1. Research ways**

**Discussion**

Three-dimensional space (also: tri-dimensional space or 3-space) is a geometric three-parameter model of the physical universe (without considering time) in which all known matter exists. These three dimensions can be labeled by a combination of three chosen from the terms length, width, height, depth, and breadth. Any three directions can be chosen, provided that they do not all lie in the same plane.

The research was started by planning. Afterward doing plan with discussion methods. In


ISBN: 978-602-74576-0-7

doing plan taking a time three weeks. The first meeting have subject matter cube, prism, and beam. The second meeting have subject matter pyramid and cylinder. And the three meeting have subject matter cone and sphere. Every meet some of the specific topics discussing include angles, intersecting lines, right triangles, perimeter, area, volume, circles, triangles, quadrilaterals, analytic geometry, and geometric constructions. Evaluation students using mind mapping have indicator in four points. It can be infered in table 1.

**Table 1. Indicator Evaluation**

| No. | Indicator Evaluation | Three Dimensonal Geometry | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Cube** | **Beam** | **Prism** | **Pyramid** | **Cylinder** | **Cone** | **Sphere** |
| 1. | Drawing | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 2. | Mention | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3. | Writing surface area pattern | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 4. | Writing volume pattern | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | Score Total | 13 | 13 | 13 | 13 | 13 | 13 | 13 |

$$\text{Value} = \frac{get\ score}{score\ max}\ x\ 100$$

The research have four indicators evaluation. It is:

1. Drawing

   Drawing three dimensional geometry be indicator because to avoid boring students to learning mathematics. By drawing, the students can imagine what they do.

2. Mention

   Mention characteristic three dimensional geometry be indicator because the student not only know about the shape of three dimensional geometry but also about length, width, height, depth, and breadth. Sometimes student did know about length, width, height, depth, and breadth. They think exchanged.

3. Writing surface area pattern

   Writing surface area pattern be indicator because is always in all three dimensional geometry shapes. Each shape have surface area. The surface area of a three dimensional figure is literally, the total area of exterior surfaces. For three dimensional figures having bases. For polyhedra such as prysm and pyramids, the surface area is the sum of the areas of the polygonal faces. (Musser, 2011: 721)

4. Writing volume pattern

   Writing volume pattern be indicator because is always in all three dimensional geometry shapes. Each three dimensional geometry have volume. So, to know volume must know the pattern.

The results of this research is measured by counting the number of students who can make a mind mapping in accordance with the indicator set. This research have divide a category of effect mind mapping methods in three categories. It is good, enough, and bad. The evaluaion result can show in graph 1.


ISBN: 978-602-74576-0-7

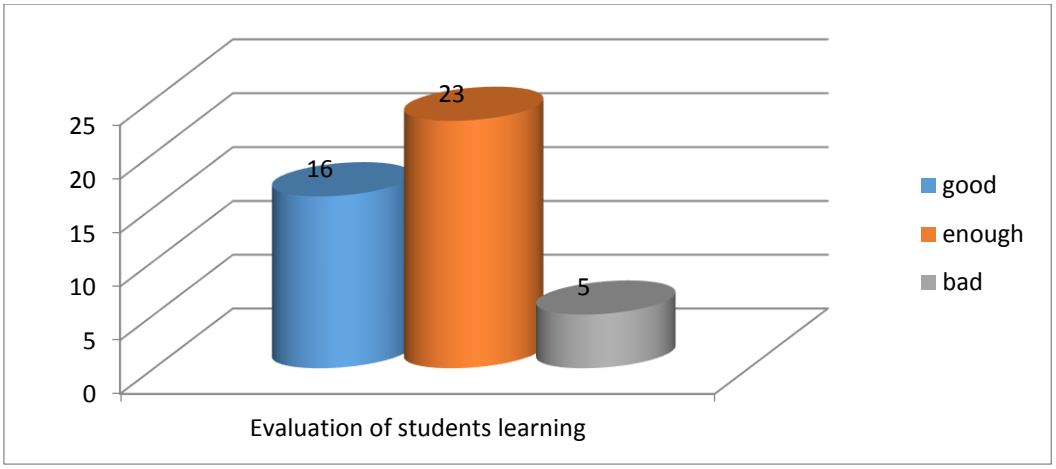



**Figure 2. Evaluation of student learning**

The results showed that mind mapping methods had effetcs on students understanding of three-dimensional geometric in class A five semester with good categories had 16 people, enough categories had 23 people, and bad categories had 5 people. Accordingly the result, lecturer can know how many students understanding the topic and do interaction with them about what they know. It can be reflection to help students grow intellectually requires balancing the support to provide with the challenges of pose. In other words, it is important to push students out of their comfort zone, but to do so gradually step by step so that the students do not panic or become discouraged if they did not value yet. So, it will make teaching mathematics be effective. NCTM (2000: 11) noted that "effective mathematics teaching requires understanding what students know and need to learn and then challenging and supporting them to learn it well". Because to make mind mapping, all students should precisely describe, classify, and understand three dimensional geometry shapes.

**Conclusion**

Using mind mapping in evaluation to describe the effect of the mind mapping methods on students understanding of three-dimensional geometric. It have conducted on the five semester student in class A. The results showed that mind mapping methods had effetcs on students understanding of three-dimensional geometric. sixteen students had good categories, twenty three students had enough categories, and five students had bad categories. By mind mapping methods evaluation all students be active, their competence be increase, their enjoy in learning, doing interaction to each other, understanding the subject matter, and lesson plan make students more active. Thus, the effect of the mind mapping in evaluation can describe students understanding of three-dimensional geometric and it can be reflection about interaction teaching and learning in next class.

Based on conclusion, suggest for reader lets do research in your life. Try to do new something different be perfect because students are not only intellectual but also social and emotional beings, and all these dimensions interact to impact learning and performance.

**Refferences**

(http://en.Wikipedia.org/wiki/Three-dimensional_space_(mathematics). was accesses on 25th February 2016. 15.54hrs (Indonesia Time).

Musser, G.L., Burger, W.F., & Peterson, B.E. (2011). *Mathematics for Elementary Teachers, a Contemporary Approach (9th ed.)*. Danvers, MA: PreMedia Global.

Sugiyono. (2016). *Berbagai Metode untuk Penelitian Tesis*. Ppt. (Workshop Metodologi Penelitian dan Strategi Hibah Penelitian Eksternal). Universitas Ahmad Dahlan Kampus 2 Unit B. on 23rd February 2016.

The National Council of Teacher of Mathematics, Inc. (2000). *Principles and Standards for School Mathematics*. Association Drive, Reston, VA: Library of Congres Cataloguing-in-Publication Data.


ISBN: 978-602-74576-0-7

# IDENTIFICATION OF TEACHER COMPETENCE IN MANAGING THE TEACHING AND LEARNING PROCESS FOR CHILDREN WITH SPECIAL NEEDS IN REGULAR SCHOOL

**Ichsan Anshory AM**
FKIP, University of Muhammadiyah Malang (writer 1)

**Abstract**

Children with special need (ABK) in the first term are referred as disabled children; ABK is defined as children who significantly deviate from normal criteria. It is seen from physical, psychological, emotional, and social aspects. Therefore, to develop their potentials, special education services are of urgency. Accordingly, the inclusive education program demanded a change in the teacher education system. The curriculum to achieve these advantages may have been developed based on theoretical study, but have not been based on what competence teachers need in the field. This paper was written based on the results of research that aimed to explain the empirical data to identify the competencies required by Primary School Teachers in managing classroom instruction for ABK in inclusion schools.

Keyword: Teacher Competence, ABK instructional activities

## A. INTRODUCTION

The Standardized Competency for Primary school (SD-MI) level teachers who are graduates of Primary School Teacher Training (PGSD) that has been assigned by the Director of workforce 2006 is explicated through 9 competencies. Those competencies are prepared to enable in administering "normal" learning classification. In fact, not all students are normal. There are many students who were born with deficiencies and disabilities, or other factors that make them demanding a special education service, or is familiar with Children with special need (ABK) term.

Children with special need (ABK) were initially referred as disabled children, or abnormal children. ABK is defined as children who are significantly deviate from normal criteria and manifest from their physical, psychological, emotional, and social aspects. Therefore, special education service is necessary for developing their potency.

ABK education falls within 3 types of institutions in the early years; those are Special School (SLB), Primary Special School (SDLB), and Integrated Education. Inclusive Education is a recently breakthrough of educational model for ABK which relies on fundamental inclusive education principle: every child is supposed to learn together despite the fact that deficiencies or differences exist among them.

The former special educational model, namely, segregation model, put ABK in separated school from normal students. These schools are served with special curriculum, teaching method, learning media, evaluation system, and teacher. Examining from its management, segregation model is likely to be beneficial but not in student's viewpoint. Reynolds and Birch (1998) point out that segregation model does not guarantee that ABK are able to optimize their potencies because the given curriculum are designed in different ways from that of the normal schools. Besides, segregation model is relatively expensive, they are also being inconsistent by stating that they will prepare ABK to get along with society, but somehow in reality they are keeping ABK back from society.

The benefits of Inclusive Education are seen from students' cooperative learning when they are responsible for reaching common goal. Teachers play important roles to create an encouraging learning environment to ensure that all students are feeling involved in both class and school activities. Several advantages of Inclusive Education are: 1) the children will be treated as who they are; 2) Children will be put in regular schools; 3) Curriculum and learning activities focus on children themselves; 4) Children engage in learning process; 5) Creating children's self-esteem; 6) Learning environment does not confine children; 7) Giving equal participation; 8) Acknowledging and actualizing every child's rights in classroom.

The problem arises when the teachers have not been trained on how to handle the behavior of ABK and to manage the learning of ABK. Special


ISBN: 978-602-74576-0-7

need teachers from the nearby special schools are employed to help teachers in inclusive schools. Fundamental changes are demanded in running future inclusive school. Such changes can be started from upgrading teachers' professionalism, both substitute and permanent teachers by providing them with official education training or individual training. These attempts are made to prove that inclusive education does not rely on higher material resources.

As a proactive response to the program, PGSD in University of Muhammadiyah Malang offers preeminent graduates that are capable of managing the learning of inclusive school as an attempt to prepare competent teachers to serve the learning for ABK. The curriculum which is used to accomplish this purpose has been developed based on theoretical needs, but is not yet developed based upon practical needs which relate to what competency that is available and required in practical needs. Therefore, this study tries to portray the process in running the instructional activities of primary inclusive school and designing competency map that is required for teachers to manage the instructional activities in inclusive schools.

## B. RESEARCH METHODOLOGY

An exploratory research was employed in this study. It was aimed to gather empirical data and present critical analysis to classify what competencies that were required by the teachers in conducting instructional activities in inclusive schools without having any intervention or hypothesis. This qualitative research paradigm was presented along with quantitative data that were used to clarify the data gained from qualitative phase.

The writer purposively selected the location, primary schools, and respondents used in this study. Firstly, Malang which is an education, tourism and industry city was chosen as the location used in this study. Secondly, the primary inclusive schools that have been consistent in maintaining inclusion education either judicially or practically were selected in this study. The selected primary schools were: SDN Percobaan, SDN Sumbersari I, SDN Sumbersari II, SDN Ketawang Gede I and II. Thirdly, the writer divided the respondents into 2 different groups: 1) The school principals and all teachers from selected primary inclusive schools; 2) Lecturers of Inclusive Education and 50 PGSD students who have got material about inclusive education.

Four different data collection methods were applied simultaneously and completing one another in this study. 1) School principals and teachers from 5 selected schools were engaged in **Focus Group Discussion (FGD)** with the total number of 24 participants. This group discussion forum was under certain criteria and only directed to specific discussion topic, so as not allowing all members to contribute to the entire convention. Teachers and schools principal admitted that the results of this group discussion generated kinds of knowledge, skill, and competency that were needed by teachers in managing inclusion schools. The results will be used as a basis in developing questionnaire and interview guide as the instruments. 2) **Instructional Analysis** was employed to examine and to compare between the syllabus used by lecturers of inclusive education and the practical needs, and to find how the idealized implementation of inclusive education in cultural context of Indonesia was, especially in Malang, 3) **The questionnaire** was used to investigate university students' perception about the sufficiency of inclusive education materials that they have got to manage the instructional activities for ABK. 4) **In depth-interview** was carried out in this study. Researcher as the main instrument and assisted by interview guide conducted an interview with Head of PGSD Faculty about the policies that supported the attempts to create qualified PGSD graduates to manage inclusive education**.**

The data were mostly qualitative because they correlated with behavior, opinion, and perception and minor data were obtained from numbers or quantitative which were used for completing and assisting qualitative data analysis. The quantitative data analysis was employed for analyzing numbers, percentage, and frequency tabulation or cross tabulation, while the data that were unable to be presented in classificatory ways were analyzed qualitatively according to the problem component and purposes of the study. Componential analysis was chosen as the qualitative analyzing phase and the trends of this study were obtained through these steps: FGD results were summarized and reduced using inductive or deductive analysis. Data of syllabus content were analyzed to develop an instrument for students' questionnaire and interview with lecturers. Summary and coding sheets allowed us to know the unclear or less-contextualized information, or gaining more in-depth and focused data, or several data that should be repeated.


ISBN: 978-602-74576-0-7

**C. FINDINGS AND DISCUSSION**

Based on various data collection methods, the findings are reported as follows:

1. In general, the results showed that teachers are in fair category of understanding about definition, policy, or how to administer inclusive school. Such knowledge is gained from National Education Institution trainings, Teacher Group Discussion (KKG), independent reading, other trainings and workshops, and by watching TV. However, they also confessed that the knowledge they got did not suffice. In reality, the intricacy of practicing the learning of inclusion school is not as simple as what the theories have mostly stated.
2. Inclusion education is a fundamental humanitarian project. The good side of teachers who learn together with ABK is gaining special experiences with these children, but it may also offer several plights, for instance, 1) By labeling "ignorant" to children who know they are lacking of knowledge and demanding more attention will worsen their condition, 2) Implementation of UASBN also becomes problematic, for example; children with mental retardation are not allowed to join this exam. The National Education Institution is supposed to create specific regulations concerning on whether the inclusive school standardization is appropriate for both normal and ABK children.
3. Benefits for teachers who are appointed to manage inclusive education are that they become more patient in handling ABK and possess greater empathy as the main requirements. Not all theories are applicable in reality. The general curriculum is still implemented, but the instructional activities are modified. Therefore, it will heighten the responsibility and main duty of inclusive school teachers. However, there is still not enough capability to do so. It creates an impression that this policy is a rash decision. As a consequence, its implementation is relatively reckless depending on each school principal.
4. During the learning implementation, there were found several uniqueness:
   - Planning arrangement: steps to arrange SK and KD are similar to regular learning. Lesson Plan (RPP) is made for normal children and is equipped with its modified model which enables us to tailor with the uniqueness of each student in the form of Individual Learning Plan (PPI).
   - Content and media preparation: The content that is used is generally similar but in different mastery standardization level, requiring Individual Learning Plan (PPI) design, cooperation from shadow teacher is needed in certain case of conducting a test or examination, teaching the content in general scope due to time limitation and curriculum attainment targets. On the other hand, teaching ABK requires a special treatment, in which teachers have to prepare and cooperate with shadow teachers in controlling attention and accomplishment of ABK. In many cases, these students need additional learning from special need teaching assistant (GPK).
   - Classroom management: All students are sitting in the same place, but some of them are accompanied by shadow teacher. In grade 1 and 2, the class is allowing shadow teacher to sit beside the child; in grade 3, shadow teacher is to sit behind the child; in grade 4 and 6, shadow teacher is to be outside of the classroom and will be allowed to get in if needed.
   - Communication strategy: The communication is generally similar. A recurrent communication is however needed for ABK. Therefore, further helps from GPK and shadow teacher are of urgency. In a case of unavailability of shadow teacher during the learning activity, helps from classmates and parents are of importance.
   - Evaluation system: The evaluation for ABK is emphasized on how teachers are able to notice the competency enhancement. For that reason, weekly or monthly ABK reports are necessary for parents.
5. Since the running of inclusive schools is prepared less-attentively, there are ample constraints during its implementation that have been exposed; 1) The insufficient


ISBN: 978-602-74576-0-7

availability of GPK; every ABK should be accompanied by one GPK which in reality not all inclusion schools have sufficient GPK; many of them only own one or two that are obviously not equivalent to the total number of ABK in inclusion school. 2) Class management relates to curriculum development, syllabus, and ABK lesson plan to adjust with current curriculum and learning methods in inclusive setting. The special learning facilities are needed as well. 3) Refusals of ABK existence in inclusive school coming from some of normal children's parents; the lack of socialization ended up with the offensive perceptions among normal children's parents by the fact of not accepting their children to learn together with ABK, 4) There is no specific guidance for learning mastery and class upgrading systems.

6. The obstacle for teacher is adjusting with new condition caused by the school principal and teacher mutations. The new teacher who has not adjusted yet is obliged to teach ABK immediately; moreover, ABKs with severe level need to be filtered considering the readiness of inclusive schools. The admittance of ABK has been limited as an attempt for conforming teachers and school resources with the number of ABK in inclusion school. The environmental constraints are: ABK do not understand about themselves and demand to be treated equally, either it is for their rights or obligations. Protests coming from normal children's parents. There is also uneven inclusion group's distribution and guidance from National Education Institution. Other obstacles are the management and financial systems. Inclusive school requires more financial support, infrastructure, and learning facilities. However, teachers' workload should be appreciated, but this seems to be contrastive with free education policy. There is a created perception that sending ABK to inclusive schools is like sending goods without requiring any facilities.
7. According to several teachers' opinions, managing inclusive schools requires more patience and sincere empathy. Besides, it requires knowledge and comprehension about:
   1) Initial assessment competency, that is teachers make an analysis in initial stage, 2) Creative and innovative learning methodology for students' needs, 3) General competency and extensive ABK knowledge, 4) Comprehension about special education, 5) Competence to develop PPI, 6) Therapy ability for special cases, 7) Media usage, 8) Assessing ABK learning progress, 9) Knowledge about child psychology, developmental psychology, and abnormal psychology, 10) Ortho-pedagogy, 11) emphasizing on non-academic skill, 12) experience in exploring ABK uniqueness. These competencies have mostly been taught to university students theoretically; therefore, internship in inclusive schools is of necessity.

## D. CONCLUSION AND SUGGESTIONS

Conclusions

1. Teachers have ample comprehension about inclusion education: Such knowledge is gained from National Education Institution training, KKG, books, TV, workshop, and seminar. The problem arises on its implementation which is not as simple as the knowledge they have gained. Inclusive education is a humanizing human being service. Yet, the teachers are not properly yet trained on how to facilitate inclusive education. Therefore, this policy becomes a rash decision of which implementation is relatively reckless.
2. The instructional activities are relatively similar. The difference is merely on special treatment in PPI, GPK and shadow teacher services, more intensive communication, assessment criteria, and progress report for parents.
3. Constraints faced by inclusion schools are; 1) insufficient availability of Special Need Teaching Assistant (GPK), 2) Class management relating to curriculum development, syllabus, and ABK in inclusive settings, 3) ABK refusal by several normal children's parents, 4)


ISBN: 978-602-74576-0-7

Graduation and class upgrading systems, and 5) Funding and facilitation.

4. The required competencies for administering the instructional activities in inclusive schools include: Initial assessment competency, that is the teachers make an analysis in initial stage, 2) Creative and innovative learning methodology for students' needs, 3) General competency and extensive ABK knowledge, 4) Comprehension about special education, 5) Competence to develop PPI, 6) Therapy ability for special cases, 7) Media usage, 8) Assessing ABK learning progress, 9) Knowledge about child psychology, developmental psychology, and abnormal psychology, 10) Ortho-pedagogy, 11) emphasizing on non-academic skills, and 12) experience in exploring ABK uniqueness.

Suggestions:

Based on the results explicated above, the writer offers several suggestions/ recommendations as the followings:

1. Management suggestions: To optimize management system in inclusive schools, coordination or sustainable workshops are needed, which emphasize on: assessment, curriculum adjustment, and cooperative learning.
2. Considering the refusals from several students' parents, campaign to increase inclusive education awareness is of urgency, specifically for school community and generally for wider societies.
3. Graduation and class upgrading: National Education Institution is supposed to create specific policy related to graduation and class upgrading for inclusive education. Therefore, the expected results from administering inclusive school will come into practice immediately.
4. Serious attention from regional government is needed to provide sufficient facilities, policy supports, as well as providing Special Need Teaching Assistants (GPK).
5. PGSD course program – UMM must immediately fix the learning process and its results. Therefore, UMM will be able to generate professional teachers who are capable of administering instructional activities in inclusive schools.

## E. REFERENCES

Mulyono Abdulrahman (2003).*Landasan Pendidikan Inklusif dan Implikasinya dalam Penyelenggaraan LPT*K. Makalah disajikan dalam pelatihan penulisan buku ajar bagi dosen jurusan PLB yang diselenggarakan oleh Ditjen Dikti. Yogyakarta, 26 Agustus 2002.

O'Neil,J.(1994/1995). *Can inclusion work?* A Conversation with James Kauffman and Mara Sapon-Shevin. Educational Leadership. 52 (4) 7-11.

Smith.J David, 2006, *Inklusi ; Sekolah Ramah Untuk Semua*, PT. Nuansa Bandung

Undang-undang Nomor 20 tahun 2003 tentang Sistem Pendidikan Nasional.

UNESCO (1994). *The Salamanca Statement and Framework for Action on Special Needs Education*. Paris: Author.

**UNESCO CONCEPT PAPER,** Sumber: Concept Paper UNESCO, diambil 12 Jan 2007 dari URL: http://portal.unesco.org/education

UNESCO, 2004, Buku Pendidikan Inklusif Jilid 1 - 6 ; Direktorat Pembinaan Sekolah Luar Biasa, Dit Jen Manjemen DIKDASMEN, Depdiknas, Jakarta

Vaughn,S., Bos,C.S.& Schumn,J.S.(2000). *Teaching Exceptional, Diverse, and at Risk Students* in the General Educational Classroom. Boston: Allyn Bacon.


ISBN: 978-602-74576-0-7

# IT BEGINS WITH GRAMMAR: TEACHING ESP WITH COMMUNICATIVE LANGUAGE TEACHING

**Eripuddin, S, Hum., M.Pd**
English Study Program, University of Pasir Pengaraian, Rokan Hulu
Pasir Pengaraian, Riau, Indonesia

**Ummi Rasyidah, M.Pd**
English Study Program, University of Pasir Pengaraian, Rokan Hulu
Kampar, Riau, Indonesia

Abstract

It is known that grammar is central to the teaching and learning of languages. Teaching grammar to ESP is not an easy task. As educators, we need suitable strategies to teach it. This study focused on teaching simple present tense and students' perspective on this subject. Participants were first semester students in management program of UPP. Data were collected through test and interview. The findings indicated that (1) students were able to construct sentences in simple present, (2) Students often complained that English is a difficult subject and (3) Students' perception of what they want to learn in English are influenced by their experience. In short, to teach grammar for ESP smoothly and effectively, we need to integrate Communicative Language Teaching.

Key words: Grammar, ESP, Communicative Language Teaching

## Background

Students who need English for specific occupation or educational setting should learn English for Specific Purposes. In our institution, Management students have to master not only language features of particular setting but also learn language structure which supports their language learning. Teaching English Grammar almost teach in the beginning of learning. The English lecturers designed to teach structure to attract and motivate students in learning English.

Teaching grammar is one of the processes in learning English for Management students' that used in our institution. Traditionally, grammar was taught as a way to attract and to refresh students to be familiar that English is an easy language to learn. The purpose was to give them a chance to integrate their background knowledge and sanitize the incorrect masses memory. In line with our purpose, we have to be careful in teaching Grammar since Pettersen (2006:388) remains us that the goal of grammar instruction is to "shift from good-versus-bad to curiosity". Teaching grammar may not only interesting but also helpful in real life context.

Communicative Language Teaching established as an alternative approaches and methods in language teaching. It is generally regarded as having communicative competence. A wide range of competence encompasses the knowledge of grammar and vocabulary which known as linguistic competence (Canale and Swain: 1980). Contrary, Morrow (2012: 140) used term communicative as what a learner can do with the language rather than to establish how much of the grammatical/ lexical/ phonological resources of the language he/ she knows. He, in short said that a teacher or lecturer cannot use Communicative Language Teaching to teach grammar/ structure.

Since communicative language teaching does not adhere to a prescribed instructional method or format so that teaching materials and lesson plans are highly diverse, depending directly on the needs of the students and on the context in which the language is being taught (Çelik, 2009). One of the characteristics should be pointed out by the lecturers when designed the lesson plan in Teaching English Grammar for English Scific Purposes is vocabulary choice (Richards, 2006: 12).

## Method

The main purpose of this research was to examine Management Students' ability in constructing sentence through Communicative Language Teaching and to explore their perception in learning English. The quantitative data was identified after the lecturer taught grammar through Communicative Language Teaching. The second phase, interviews aimed at explaining students' perception toward English subject. There were 30 students involved in this research.

## Findings

To investigate students' ability in constructing sentences, two different test were


ISBN: 978-602-74576-0-7

administered. Appropriate techniques in analyzing the data selected.

Table 1. shows the presence of students ability in constructing correct sentences. Even the most dominant frequency found in Good level, the average ability in pre-test was in Enough level. It means that the improvement is needed.

**Table 1. Pre-Test**

| No. | Range of Score | Level of Ability | Pre-Test | |
|---|---|---|---|---|
| | | | Frequency | Percentage |
| 1 | 80-100 | Very Good | 0 | 0% |
| 2 | 66-79 | Good | 13 | 43% |
| 3 | 56-65 | Enough | 6 | 20% |
| 4 | 40-55 | Less | 10 | 33% |
| 5 | 30-39 | Fail | 1 | 3% |
| Total | | | 30 | 100% |

Communicative Language Teaching which applied by the researcher lead the students to a great chance to practice English. Thus, when the researacher asked them for their assesment, they will be able to do so.

**Table 2. Post-Test**

| No. | Range of Score | Level of Ability | Post-Test | |
|---|---|---|---|---|
| | | | Frequency | Percentage |
| 1 | 80-100 | Very Good | 13 | 43% |
| 2 | 66-79 | Good | 16 | 53% |
| 3 | 56-65 | Enough | 1 | 3% |
| 4 | 40-55 | Less | 0 | 0% |
| 5 | 30-39 | Fail | 0 | 0% |
| Total | | | 30 | 100% |

There are several possibilities that make Communicative Language Teaching helpful. This exchange arises when the researcher instructed the students to do something related to the topic being studied in their department. Moreover, the language expanded through active interaction in the classroom.

**Table 3. Statistics Data**

| | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| Pre | 60,56 | 30 | 11,32 | 2,07 |
| Post | 76,89 | 30 | 8,16 | 1,50 |

Table 3. shows statistics decriptive data before and after applying Communicative Language Teaching. The proportion of exchange can be seen because of instructional and explanation that gave by the researcher commanded his students so that feedback existed.

**Table 4. Normality Test One-Sample Kolmogorov-Smirnov Test**

| | | Unstandardized Residual |
|---|---|---|
| N | | 30 |
| Normal Parameters[a,b] | Mean | 0E-7 |
| | Std. Deviation | 10,94371030 |
| Most Extreme Differences | Absolute | ,104 |
| | Positive | ,064 |
| | Negative | -,104 |
| Kolmogorov-Smirnov Z | | ,570 |
| Asymp. Sig. (2-tailed) | | **,902** |

a. Test distribution is Normal.
b. Calculated from data.

Table 4. indicates the normality of data. It proves that homogeneity test needed before analyzing the data.

**Table 5. Homogeneity Test**

| Levene Statistic | df1 | df2 | Sig. |
|---|---|---|---|
| 1,004 | 6 | 21 | **,449** |

Based on the SPSS output, we know that the significant value was 0.449 greater than 0.05. Considering significant value > 0.05 and then we can concluded that the data are homogeneous and the both of have the same variance.

**Table 6. Paired Samples Test**

| | T | df | Sig. (2-tailed) |
|---|---|---|---|
| Pre – Post | -5,755 | 29 | **,000** |

From the table 6. by using *Paired Samples test*, it showed that the sig. was 0.000. Meanwhile α was 0.05. Based on the fact sig. (0.000) was smaller than α at 0.05 **the null hypothesis was rejected**. It can be concluded that there is a significant different


ISBN: 978-602-74576-0-7

between students' ability before and after applying Communicative Language Teaching.

The increasing percentage of the students' ability can be calculated as follow:

$$\frac{\text{Students' mean score after} - \text{before}}{\text{Before}} \times 100\%$$

It is found that the increasing percentage of students' participation is 75.89%.

Next, we considered to ask the students about their perception in learning English structure. Several questions were addressed to them in order to get the data. When a student interviewed, he dilated that English is the most difficult subject to learn. In the same way, he admitted that he learned English as a compulsory subject which means if he failed, he could not pass and get Sarjana Degree. There was a tendency that most of general lecturers' courses tend to give good score when a student keeps up the meeting and the assignment.

Thus, the student begins to learn English but patch up in it. Even Cia, the most diligent student, talks about her experience when she took English class. She noted that she did not need efforts in completing the course.

In navigating through to the idea of how experience affect their English, Jumarno, indicated that his previous teacher in Senior High School made up his mind that English is a language that has to be learned. This emphasizing then broke his mood to learn English.

As proved by Efrizal (2012) Communicative Language Teaching could motivate the students to be active and had a great participation in class activity during teaching and learning process in classroom. The demonstrated result supported by Brown (2007:242) who highlighted grammatical structure might be better understood "within various functional categories". In class environment, the students are involved in different kinds of activities that require practicing various skills to understand their peers and make themselves understood by others (Chang, 2011). As a result, they can communicate effectively.

Teaching ESP through traditional and new concept of Communicative Language Teaching promoted supportive roles of educators and materials. They all contribute positively in reaching the aim of teaching. The characteristics of designing a communicative language environments influence students' learning attitudes. It lead the students ranging from enjoy learning and improve quality to complete tasks and assignments.

As educators, we have to admit that students have perceptions and conceptions of learning. A Good learning environment can be detected when instructional features may help or hinder them to learn or to realize (instructional or learning) tasks' (Elen & Lowyck, 1999: 149). This encourages the students to concern on the learning processes rather than result only.

Students' experiences play important role with respect to students' perceptions. The difference between experiences and today instructional strategies may be mediated by designing compatible activities in the classroom. The reflection of students learning experiences influence learning strategies and habitual ways of learning. Elen & Lowyck, (1999) concretely stated that prior experiences with learning environments have caused students' different views on the demands of functioning in education, compared with their own conceptions of learning which reflect their preferred way of learning. In order to maximize a reciprocal relationship among educators, students and materials, Communicative Language Teaching is proposed.

**Conclusion and Suggestion**

Considering the importance of learning English, a lecturer has to be able to select an appropriate method due to reach the goal of teaching. Communicative Language Teaching is a helpful method in teaching grammar for Management students. Different combination materials and subjects through Communicative Language Teaching are required for the future research.

**Acknowledgement**

Our warm and and sincere thanks would go to Prof. Feliatra, DEA and Afrianto, M.M for their invaluable uncompromizing quest for profesionalisms in research methods. We also grateful to the Management students of UPP for their participation.


ISBN: 978-602-74576-0-7

**References**

Brown , H. D. (2007). *Principles of Language Learning and Teaching.* New York: Pearson Education, Inc

*Canale, M.; Swain, M. (1980). "Theoretical bases of communicative approaches to second language teaching and testing" (PDF). Applied Linguistics (1): 1–47. Retrieved September 29, 201.5*

Çelik, Servet. 2009. *Communicative Language Teaching*. Retrieved from https://www.researchgate.net/profile/Servet_Celik/publication/262913475_Communicative_Language_Teaching/links/0deec5392eb51e478f000000.pdf on 11th January 2016.

Chang, Ming. 2011. EFL Teachers' Attitudes toward Communicative Language Teaching in Taiwanese College. *Asian EFL Journal Professional Teaching Articles.* Volume 53 July 2011

Efrizal, Dedi. 2012. Improving Students' Speaking Through Communicative Language Teaching Method at Mts Ja-alhaq, Sentot Ali Basa Islamic Boarding School. Of Bengkulu, Indonesia. *International Journal of Humanities and Social Science.* Vol.2 No. 20 (Special Issue-October 2012)

Elen, J., & Lowyck, J. (1999). Metacognitive instructional knowledge: Cognitive mediation and instructional design. *Journal of Structural Learning and Intelligent System*,13(3–4),145–169

Morrow, Keith. 2012. "Communicative Language Testing." *The Cambridge Guide to Second Language Assesment.* Eds. Cristine Coombe et al. New York: Cambridge University Press

Petterson, N.L. 2006. Grammar Instruction in the Land of Curiosity and Delight. *Teaching English in the Two Year Collage.* (pp.388-391).

Richards, Jack C. 2006. *Communicative Language Teaching Today*. New York: Cambridge University Press.


ISBN: 978-602-74576-0-7

# WHAT STUDENTS LOVE FROM THEIR TEACHERS? CONSTRUCTING TEACHERS WHO LIVE IN STUDENTS' HEART AND BRING MEANINGFUL IMPACT ON STUDENTS LEARNING EMOTION AND PROCES

**ADI SURYANI**
*ITS (Institut Teknologi Sepuluh Nopember)*
*Surabaya*

**Abstract**

**The motto *guruku idolaku* carries some obligations and challenges for today's teachers to constantly reflect their teaching practice, learn to listen to and observe their students need and emotion and continuously be aware of themselves, identity and behaviour. Today, teachers should not be able to be teachers in their students' head only, but also teachers in students' heart. This indicates that it is not sufficient for teachers to be competent in transferring information and knowledge only. They should know how to make their students love, enjoy their learning and grow to be self-regulated and lifelong learners. Teachers may not realize that interesting learning (classroom) does not always reside on exciting materials, but on teachers' self. Teachers' self can be great resource to generate students' emotion to learn. How teachers behave, communicate and deliver their materials can inspire, empower, magnetize and influence students to learn. Frequently, students do not hate certain subjects, they just do not like teachers who teach those subjects. This indicates that teachers' behavior and character are significant in education. However, teachers characters are frequently left, undiscussed. This study aims to analyze how teachers' behaviour/selves can affect their students' emotion and learning process by listening to students' inner voices. This study is a qualitative inquiry. The data collected through students' story writing on their past learning experience. The data show that students are active observers of their teachers. They have feeling and personal disposition towards their teachers. They are actively scanning their teachers physical performance, teachers' communication (language, manner, intonation), detecting values of their teachers, concluding their characters, feeling the emotion of their teachers, developing sense of admiration or hatred, feeling how their teachers treat/interact with them and sensing teachers' motivation. They are using their feeling to analyze their teachers. They may not have capacity or courage to express/convey what they don't like from their teachers, but inside they feel it. Being taught by teachers whom they like can make them feel proud, be impressed and happy which can make them learn more actively, even start loving subject that they do not like before. It is possible that how they experience and feel during their learning process determine their learning mindset and learning process in the future. Thus, it is significant for teachers to evaluate how they are and viewing that teaching is relational activity. This implies that what happens to students may not because of the students, but it can be because of the teachers.**

Keywords: teacher behaviour, learning process, learning emotion, self regulated learners, lifelong learners

## 1. Introduction

Today's teachers face new challenges. They are expected to build and develop positive character, motivation and affection inside their students. They are hoped to be role models and learning practices. This implies that what the theories of learning/teaching/education and policies/curriculum on those areas say will remain to be only statement of theories and policies when teachers do not want to change or implement them in their classrooms. Thus, teachers are central educational practitioners.

Today's teachers face new challenges. They are expected to build and develop positive character, motivation and affection inside their students. They are hoped to be role models who provide exemplary character, affection and cognition or becoming ideal/idolized figure for their students. This implies that teachers should have certain behaviour, character, affection, performance and approach which can stay in their students' heart. Thus, teachers should not be only smart, but also inspiring, motivating and modeling. Frequently, students will easily forget information that their teachers transfer, but they will remember how is their teachers, what they like and bitterly hate from their teachers and how their teachers treat them. Students are not blank and passive individuals when they come to school and meet their teachers for the first time. They may do not have any idea about their subject matter after they leave their classrooms for the first time, but they may build their perception and mental image/representation on their teachers. They feel how their teachers are. When they like their teachers


ISBN: 978-602-74576-0-7

they tend to love the subject or learn to love the subject. We frequently also may find students who are not motivated to learn certain subject/subjects because they do not like the teachers. This indicates that how teachers represent themselves can influence students' learning outcome through the mediation of students' emotion.

Teachers may represent themselves through various ways. This can be done through how teachers build and develop relationship with their students, how they teach (teaching style), how they treat their students when their students make mistakes and how teachers inspire their students with teachers' deeds and behaviour. This study aims to explore students' perception on their meaningful/significant teachers, how they feel about their teachers, what teachers' selves inspire/motivate them and how this can affect students' learning value and behaviour. Thus, it is vital to observe teachers' behaviour and style through students' eyes.

## 2. Problems of the Study

There are two main central issues which I intend to explore in this study. Those are:

1. How do the students perceive their meaningful teachers, how do they feel and what they love from these teachers?
2. How do their teachers' (behavior) can affect their (students') learning process and what learning aspects can be influenced by their meaningful teachers?

## 3. Theoretical Framework

### 3.1. Students' Perception on Their Teachers

When students learn in school/classroom, there is complex learning process occurs. Students are not only processing/thinking about their subject matter (content), but also observing their teachers. They may build certain perception on their teachers which may hinder or support their learning process. How students perceive their teachers can interfere students learning outcome [1, p607]. Students' perception on teachers' interpersonal behaviour may affect classroom order [Créton, Wubbels & hooymayers, 1989, cited in 1, p607]. This perception/students mental image tends to be established by students when they observe their teachers in front of the class [Weber & Mitchell, 1995, cited in 1, p614]. den Brok, Fisher and Koul [2, p5], classify students' perception on their teachers affected by three levels of communication: the lowest level contains short/brief communication, the second one includes teacher-student interaction and the third level is pattern which is developed by students through intense interaction. How students perceive their teachers behaviour and their relationship with their teachers strongly affect students learning process. Safe classroom environment which is created by teachers through their proximity and immediacy behavior can increase students' motivation to learn their subject [3, p30]. This indicates that it is significant for teachers to work on two vital areas in students learning: cognition and affection. This is as mentioned by Lieberman and Miller [4, p2], "the teachers, then, have two dimensions: one universal and cognitive, and the other particular and affective. The cognitive missions a repertoire of skills in moving a group and making sure that knowledge builds, extends and is learned. The affective mission requires that teachers somehow make friends with their students, motivate them, arouse their interest and engage them on a personal level."

Students also tend to observe their teachers from various aspects. They see their teachers' verbal and non-verbal behavior [Galloway, 1976, cited in 5, p3]. This indicates that content material is not the only information that students will absorb from their teachers. They extract information from teachers' body language [5, p. 3]. Ramsey [1979, p. 110, cited in 5, p 3] reminds that "in addition to presenting a lecture…by the way she moves, stands, gestures, uses eye contact and vocal inflection, a teacher also tells her class about herself, how she feels toward the subject matter and the very act of lecturing, and how he feels about them." Hawk, Cowley, Hill & Sutherland [6, p 14-15] mention that students see their teachers behavior through their body language, learning event and model provided by teachers. Students can interpret their teachers non verbal behavior through five ways: space, body, face, visual behaviour and voice [7, p5].

### 3.2. Teachers' Behaviour

Teachers exert considerable impact on their students. Frequently, success of students' learning is not only affected by potential competence of students, but also how their teachers behave and treat them. Thus, many studies explore teachers' element which may affect teaching and students learning process. Teachers' behavior can be predicted from various teachers' factors.

One of several central elements is teachers' beliefs and practices [8, p588]. Wideen, et.al. [1998, p167, cited in 8, p588] argue that this beliefs and practices are shaped through student teachers learning process instead of teachers' knowledge. This implies that teachers learning experiences are significant for building teachers' capacity to create positive classroom climate. van Petegem, Creemers, Rossel and Aelterman [9] mention that teachers' well being and emotional capacity


ISBN: 978-602-74576-0-7

also may affect students learning process. Thus, it is expected that teachers are not only capable of controlling their own emotion, but also working with students' emotion issue. They should be able to manage both their students' emotion which is started from handling their own emotion.

Different teacher may have their own personal style in teaching. This is strongly affected by teachers' characters as distinctive human property [1, p609]. Furthermore, Hansen [cited in 1, p609] states that how teachers behave transfers certain moral messages on how students should act, how they should treat others and why they are in the classroom.

Building from the work of Wubbels, Créton, Levy and Hooymayers [1993, cited in 1, p611] who divide teachers' behavior into dominance, cooperation, opposition and submission, van Tartwijk, Brekelmans, Wubbels, Fisher & Fraser [1, p613] classify teachers' behavior into several types: DC leadership teachers who have high competence in leading, DC helping/friendly teachers who display traits of assisting, CS understanding teachers who have high tolerance of delay, CS student responsibility teachers who can be easily affected by their students, SO uncertain teachers who are inconsistent and unclear, SO dissatisfied teachers who develop untrusting thinking, OD admonishing teachers who can be furious very easily and DO strict teachers who are very rigid.

Teachers' characters can be reflected in how they communicate with their students. Thus, some studies focus on communication approach perspective [2,1,10]. How teachers express their ideas, thinking and feeling can affect students' motivation through pleasure feeling [2] and affective-cognitive engagement [11].

Teachers' classroom behavior is also affected by how they respond to what are happening in their classroom and teachers selves. Teachers can react based on their consciousness and unconsciousness, operation of cool and hot system in their selves [12, p668]. Wubbels, et.al. [13, p2] argue that it is important to examine teachers behavior through two lenses: interrelational aspects which consider teachers self elements, such as experience, values, beliefs and developmental psychology by directing focus on students' behavior as the stimulus of teachers' behavior. This implies that teaching is not monotonous activity. It needs teachers to manage various students which can affect teachers' classroom behavior. This is as mentioned by Tigchelaar and Korthagen [12, p668], "Hence, when a teacher has to react very fast, his or her "hot" behavior will be unreflected. When there is more time, his or her reactions may be more conscious, and based upon a rational analysis of the situation. We conclude that teaching cannot be an entirely reflective and rule guided process, as circumstances do not allow each occurrence to be fully examined, and every possible alternative to be considered based on existing theories." Different from Tigchelaar and Korthagen [12] who highlight hotness and coldness teachers' behavior, Wubbels, et., al. [7, p. 1] classify teachers' behavior based on three perspectives: content perspective highlighting teachers action, method/pedagogical perspective focusing on teachers' decision in selecting teaching materials, motivating behavior, evaluating and interpersonal perspective relating to how teachers and students interpret their relationship. Teachers' behavior is not only informed by books, but there are various sources. Teachers' behaviour can be derived from their "tacit knowledge" and their personal states, including experiences, values, beliefs [Korthagen & Lagerwerf, 1996, cited in 12, p669].

### 3.3. Teachers' Behaviour

How students behave during their learning process can be stimulated by their environment, including social surrounding. One of many aspects which can be influential is teacher-student interaction.

Teachers have significant role in inducing certain classroom climate. Teachers are active and influential agents who can develop fun learning, motivating, providing students chances to learn and connecting materials to students' sense of concern [14, p324]. Classroom spirit also can be mediated by teachers' enthusiasm [15]. It is expected that when teachers are happy, their students will be impacted. This indicates that teachers are not only transmitting their book-based knowledge/information, but also their emotion. This is as mentioned by Frenzel, Goetz, Lüdtke, Pekrun and Sutton [15, p706], "Teaching…is almost scary…because I've come to realize that my emotions…can really dictate the mood of the class and almost how the kids are going to be that day…If I'm in a good mood, it can be a real positive class." This indicates that what teachers bring into their classroom affects students learning.

How teachers interact with their students also form the tone of classroom. Classroom climate is created through teacher-student relationship [9]. This relationship is not unidirectional, but bidirectional, mutually influencing [16, p3]. This indicates that when teachers support their students, teacher will also sense positive feeling from it. Teachers tend to feel high level of gratification and contentment when they are appreciated by their students [4, p2].


ISBN: 978-602-74576-0-7

How teacher student relationship will be developed is dependent on several factors. Barry and King [1999, cited in 17, p100] mention that quality of teacher student relationship is determined by three factors: teachers' selves, how teachers interact with their students and how teachers can preserve students' worthy feeling. Students who see their teachers as welcoming, trusting, esteeming and accessible can develop sense of school belongingness, self direction and having potential academic quality [18, p3]. Positive teacher student relationship is attributed by "empathy, caring, respect, going extra mile, passion to motivate, patience and perseverance, belief in students' ability [6, pp 4-14]. Hughes [19, p1] believes that supportive teaching behavior can develop students' cooperative and non-conflicting behavior. Effective teacher-student relationship is also characterized by agreeableness and confirming relationship [20, p2], teachers' immediacy behavior [14, p325], relieving emotional students' emotional anxiety by being clear [21], teachers' caring, understanding and responsiveness behavior [5, pp1-2].

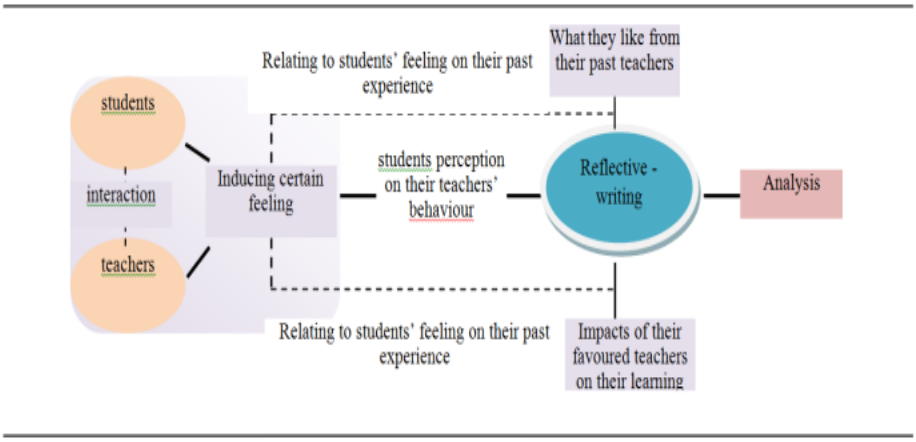



Figure 1. Process and Method of the Study

Teachers' constructive behavior shapes students learning outcomes. It supports students' autonomy [22], increase students' engagement [23], reduce students' apprehension [21], enhance students' cognition and affection [24] and social skill by getting along with and maintaining relationship with their teachers [20]. Social relationship between teachers and students can provide social experience for students to respect social norm along their learning process and this can be social capital for students [25].

## 4. Research Method

This study is a qualitative research. I observe students feeling on their previous teachers, teachers whom they love or they do not like. They are asked to remember their meaningful experience when they are interacting with their teachers and indicating why they love or hate their particular teachers. They are also asked to reveal the impacts of their teachers' behavior on their learning journey. The data are collected through students' reflective writing. The students are free to write their experience. This free writing is a form of open qualitative data. Punch [26, p58] states that open ended qualitative data can help researchers to explore people's direct experience. Phenomenology is used as the philosophical stance of the study. A phenomenological research initiates its study by looking at lived experience [27, p36) or defining certain experience as subject of concern [28, p60]. The data analysis is conducted by using phenomenological research method of data analysis. As mentioned by Moustakas [1994, cited in 28, p60], "the procedures consist of identifying a phenomenon to study, bracketing out one's experiences, and collecting data from several persons who have experienced the phenomenon." The process and method of the study is represented in figure 1.


ISBN: 978-602-74576-0-7

## 5. Discussion

Students are not just silent receivers. They are active observant. They may not only have certain thinking and feeling about their learning materials and classroom learning climate, but also how their teachers behave and represent themselves in front of them. These teachers' aspects may affect how students interpret materials. Moreover, how students perceive themselves, learning process and teachers in their future academic path can also be affected by teachers' behavior. Same learning materials can bring different impacts when they are delivered by different teachers. Teachers bring their "humanness aspects" into classroom and add learning flavor which potentially can allow students able to digest their learning materials easier, more effective and impactful. Some teachers can make their students learn happily and love their teachers very much, while other teachers may hurt their students' feeling, leave academic wound and be attributed "killer teacher."

The data show that when students come to school/classroom, they are not only learning their learning materials, but they observe their teachers and develop perception on their teachers.

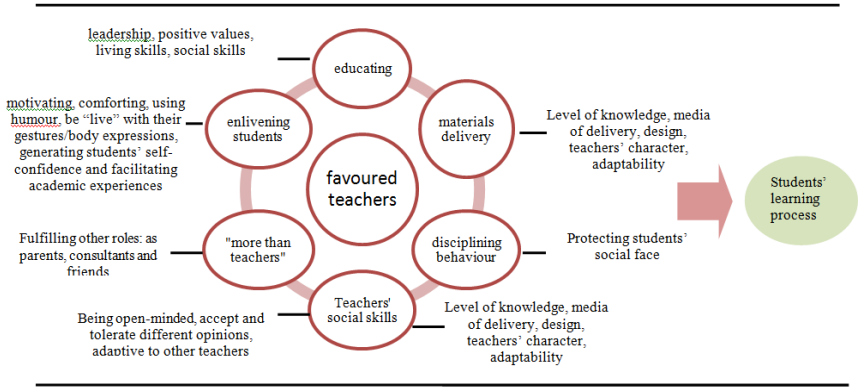



Figure 2. Several teachers' aspects which are favoured by the students

### 5.1. What Students Like/Love from their Teachers?

The data show that students love their teachers not just because their teachers have high level of intelligence, but there are several other aspects which they see and find from their teachers.

The first aspect is material delivery. The students are aware that their teachers have high level of knowledge on their subject matter. A factor which makes the students like their teachers is relating to how teachers deliver their subject matter, design the materials for their students to be able to understand the given materials easily and happily. Thus, making materials can be accepted and understood by students is a big challenge for teachers. There are several aspects teachers should consider in delivering their materials: being clear (clarity) which includes language of delivery, connecting materials to students' daily life (being more practical) and being enthusiastic. The students also remember their teachers when their teachers are creative in designing their teaching materials, for instance putting (adding) animation into their media of presentation. However, this technology should be balanced with teachers' capacity to adapt technology to their subject matter (topic of discussion) and students' need (learning capacity). Thus, the students tend to love teachers who concern about their teaching content, learning-teaching creativity, technology in delivering materials, adaptive capacity in using technology and beware of their (teachers) own character in delivering materials.

The second aspect is relating to discipline issues. Teachers' disciplining behavior can be very crucial in students' learning process. Teachers' disciplining behavior is very sensitive area for both students and teachers. It lies within the area of emotion. Teachers' ineffective behavior may hurt students' feeling and generate negative emotion, for instance, anger, embarrassed, uncomfortable or loosing their self confidence. The students tend to love teachers who enforce discipline without tearing/breaking their (students') social face.

The third factor is relating to teaching/educating the students to learn things beyond their subject matter. The students love and tend to remember their teachers who teach other (living) skills, for instance: leadership, building positive values for life or social skills. They are observing their teachers and admiring teachers who have exemplary behaviors, for instance sincere, dutiful, being on time, honest and respect honesty, kind, care, patience, interactive, firm, discipline, warm, passionate about teaching and fashionable). This indicates that unconsciously


ISBN: 978-602-74576-0-7

teachers may educate their students through their behavior. They are becoming behavioural model and figure for their students.

The fourth aspect is enlivening their students. The students tend remember teachers who are able to refresh them. They love teachers who are motivating, using humor in class, be "live" with their gesture/body language, comforting, generating students' self confidence, facilitating academic experience outside their school, for instance competition with students from different schools. This indicates that students are looking forward teachers who can generate their positive emotion.

The fifth aspect is a teacher is not only a teacher. Teachers should fulfill role beyond their teaching role. The students love teachers who can be their friends, spending some extra time (develop) interaction outside school/learning hours and can be their parents or guardians and consultants. This indicates that teachers should be able to adapt themselves into different roles.

The sixth aspect is teachers' social skills. Students are expected their teachers to be open minded teachers, accept and tolerate different opinion, ideas or thinking and being adaptive to other teachers.

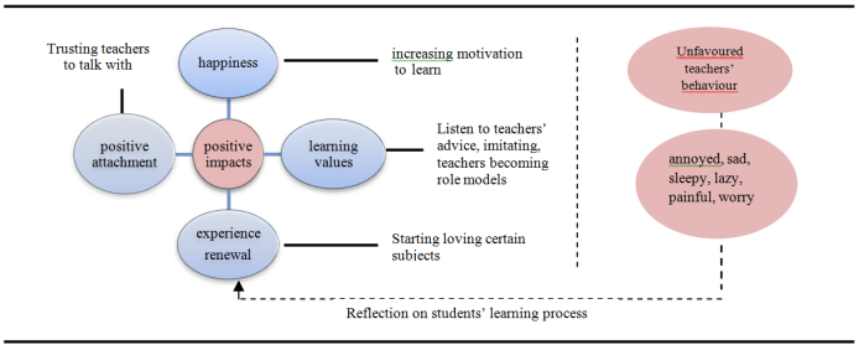
### 5.2. Impacts of Teachers' Behaviour on Students

The data show that teachers' behavior tends to have strong and direct impacts on students' emotion. This emotional state will affect students' capacity to learn. Favoured teachers' behavior tends to bring about several impacts.

The first impact is it generates students' feeling of happiness. They become highly motivated to learn, especially when they can see that their teachers are very passionate to teach them. Funny teacher (fun classroom climate) can also alleviate students' academic stress (tension). This indicates that happy feeling can increase their motivation to learn and achieve better (higher) academic performance (level). The second impact is the renewal experience process. Some students start to love subject which they do not really like before because of their new teacher. They are replacing their negative experience with more positive one. Teachers can be the active agent of this renewal process.

The third aspect is the students tend to develop positive attachment to their teachers. They feel that they can get closer and regard their teachers as their friends. This condition may bring positive impact. The students trust their teachers. They tend to feel free to talk about their academic problems to their teachers, ask them about their teachers' opinion and solution. This enables teachers to move from more than being teachers. They also can be their students' parents and consultants. They can get access into students' feeling.

The fourth aspect is the students will be able to learn constructive values from their favourite teachers. When they like certain teachers, they tend to listen to their advice and imitate their behavior. These teachers can be effective model for their students. This positive value construction is central for students' learning process in the future. This is as extracted from the following data.




"...in addition, she assessed her student objectively. For me, she never judge someone from the final result, but she always assess her students from the process. For example, if there is a student who has a weak ability in studying physics quickly, but that student show that he is trying to learn, she still appreciated him by providing bonus score. At least, that student can pass on her class. From this, I learned that result is not everything. Most important is a process which we live and our ultimate goal, whether from the process we know that we have achieved our main goal or not..."

(A student's voice)


ISBN: 978-602-74576-0-7

Unfavourable teachers bring different impact from their best-loved teachers. The students mention that they feel uncomfortable with their disliked teachers. They feel being annoyed, feel sad, sleepy, lazy to learn, feel painful and does not care about the lessons. They also feel worry and unhappy all the time. However, some students can change their feeling of dislike into motivation to learn. They finally can understand their teachers' behaviour after they get some values (educational positive impacts). They usually perform some reflections on their academic achievement, why they can be successful in their next (future) educational path

## 6. Conclusion

Students' learning process is not an independent aspect. It is interconnected (intertwined) by other aspects, including teachers' factors. The data show that it is not only teachers' cognitive knowledge which impact significantly impact students' learning process, but also teachers' characters. When teachers teach their students, their students are not passive recipients. They are actively scanning and interpreting their teachers' behaviour, way of communication and interaction. How teachers' behave, communicate and establish interaction with their students may affect students' motivation to learn. There are several teachers' aspects which the informant-students love from their teachers. Those are teachers' material delivery, being more than teachers, act of enlivening students, disciplining behaviour, teachers' social skill and just teaching beyond subject matter. Students' liking behaviour may bring some impacts on their learning. Those are generating students' sense of happiness, developing students' attachment behaviour to their teachers, stimulating students to learn something significant from their teachers' behaviour.

## References


1. van Tartwijk, J. Brekelmans, M., Wubbels, T., Fisher, D., L. & Fraser, B., J. Students' perceptions of teacher interpersonal style: The front of the classroom as the teacher's stage. Teaching and Teacher Education. 1998, 14, 6, 607-617.
2. den Brok, P. & Fisher, D. The importance of teacher interpersonal behaviour for secondary science students' attitudes in Kashmir. A paper re-submitted to: Journal of Classroom Interaction. 2006, Retrieved from www.googlescholar.com, on November 13, 2015.
3. den Brok, P. Levy, J. & Brekelmans, M. The effect of teacher interpersonal behavior on students' subject-specific motivation. 2005, 40, 2, 20-33.
4. Lieberman, A. & Miller, L. Teachers, their world and their work. Implications for school improvement. Association for Supervision and Curriculum Development, Alexandria, Va, 1984.
5. Teven, J., J. & McCroskey, J., C. The relationship of perceived teacher caring with student learning and teacher evaluation. A paper presented at the Annual Meeting of the Speech Communication Association (82nd, San Diego, CA, Nov, 23-26, 1996). 1996.
6. Hawk, K., Cowley, E., T., Hill, J. & Sutherland, S. The importance of the teacher/student relationship for Maori and Pasifika students. n.d. Retrieved from www.googlecsholar.com, on November 11, 2015.
7. Wubbels, T., et., al. An interpersonal perspective on teacher behavior in the classroom. A paper presented at the European Conference on Educational Research (ECER) (Bath, England, 1995). 1995.
8. Lunenberg, M., Korthagen, F. & Swennen, A. The teacher educator as a role model. Teaching and Teacher Education. 2007, 23, 586-601.
9. van Petegem, K., Creemers, B., P., M., Rossel, Y. & Aelterman, A. Relationship between teacher characteristics, interpersonal teacher behavior and teacher wellbeing. Journal of Classroom Interaction,2005, 40, 2, 34-43.
10. Wubbels, T. & Brekelmans, M. Two decades of research on teacher-student relationships in class. International Journal of Educational Research, 2005, 43, 6-24.
11. Hughes, J. & Kwok, O. Influence of student-teacher and parent-teacher relationships on lower achieving readers' engagement and achievement in the primary grades. J. Educ Psychol, 2007, 99, 1, 39-51.
12. Tigchelaar, A. & Korthagen, F. Deepening the exchange of student teaching experiences: Implications for the pedagogy of teacher education of recent insights into teacher behaviour. Teaching and Teacher Education, 2004, 20, 665-679.
13. Wubbels, T., et.al. Discipline problems of beginning teacher, Interactional teacher behaviour mapped out. A paper presented at the Annual Meeting of the American Educational Research Association. 1985.
14. Christopel, D., M. The relationships among teacher immediacy behaviors, student motivation and learning. Communication Education, 1990, 39, 323-340.
15. Frenzel, A., C., Goetz, T., Lüdtke, O., Pekrun, R. & Sutton, R., E. Emotional transmission in the classroom: Exploring



ISBN: 978-602-74576-0-7

the relationship between teacher and student enjoyment. Journal of Educational Psychology, 2009, 101, 3, 705-716.
16. Rickards, T. & Fisher, D. Three perspectives on perceptions of teacher-student interaction: A seed for change in science teaching. A paper presented at The Annual Meeting of the National Association for Research in Science Teaching. 2000.
17. Khine, M., S. & Fisher, D., L. Teacher interaction in psychosocial learning environments: Cultural differences and their implication in science instruction. Research in Science & Technological Education, 2004, 22, 1, 99-111.
18. Hughes, J., N., Wu, J., Kwok, O., Villarreal, V. & Johnson, A. Indirect effects of child reports of teacher student relationship on achievement. J. Educ. Psychol, 2012, 104, 2, 350-365.
19. Hughes, J., N. Longitudinal effects of teacher and student perceptions of teacher-student relationship qualities on academic adjustment. Elem Sch J., 2011, 112, 1, 38-60.
20. Hughes, J., N., Zhang, D. & Hill, C., R. Peer assessment of normative and individual teacher-student support predict social acceptance and engagement among low-achieving children. J. Sch. Psychol, 2006, 43, 6, 447-463.
21. Chesebro, J., L. & McCroskey, J., C. The relationship of teacher clarity and immediacy with student state receiver apprehension, affect and cognitive learning. Communication Education, 2001, 50, 1, 59-68.
22. Assor, A., kaplan, H. & Roth, G. choice is good, but relevance is excellent: Autonomy enhancing and suppressing teacher behaviours predicting students' engagement in schoolwork. n.d., Retrieved from www.googlescholar.com, on November 12, 2015.
23. Skinner, E., A. & Belmont, M., J. Motivation in the classroom: reciprocal effects of teacher behavior and student engagement across the school year. Journal of Educational Psychology, 1993, 85, 4, 571-581.
24. Khine, M., S. & Atputhasamy, L. Self-perceived and students' perceptions of teacher interaction in the classrooms. A paper presented at the Conference on Redesining Pedagogy; research, Policy, Practice, Singapore, 30 May to 1 June 2005. 2005.
25. Muller, C. The role of caring in the teacher-student relationship for at-risk students. Sociological Inquiry, 2001, 71, 2, 241-55.
26. Punch, K., F. Introduction to social research. Quantitative and qualitative approaches. London: Sage Publication Ltd. 2005.
27. van Manen, M. Researching lived experience. Human science for an action sensitive pedagogy. Canada: State University of New York Press. 1990.
28. Creswell, J., W. Qualitative Inquiry & Research Design. Choosing Among Five Approaches. California: Sage Publications, Inc. 2007.


ISBN: 978-602-74576-0-7

# IMPROVING THE QUALITY OF OFFICE ADMINISTRATION VOCATIONAL TEACHERS THROUGH COMPETENCY-BASED TRAINING IN INDONESIA

**Sutirman**
*Yogyakarta State University, Indonesia*

**Muhyadi**
*Yogyakarta State University, Indonesia*

**Barry McKnight**
*University of Newcastle, Australia*

**Abstract**

One of the factors that influence the quality of education is teacher quality. Teacher quality can be viewed from a mastery framework of a teacher's pedagogical, professional, social, and personality competence. Beginning teacher competence test results in 2012 showed the level of competence of teachers in Indonesia is still low with the highest value of 55.1 on a 0-100 scale. Therefore, the development of teachers' competence is needed on an ongoing basis. One approach for improvement is education and training, particulary competency-based training. Competency-based training gives participants the skills in planning learning, and exploring and interpreting instructional material in accordance with the demands of competence. A model for improving the competence (and hence quality) of Office Administration Vocational Teachers through competency-based training is considered.

Keywords: competence, teacher, training.

## 1. Introduction

Progress of a nation depends on the quality of its human resources. Quality human resources are formed through a process of quality education and training. Quality education requires teachers who can carry out their duties in a professional manner.

One approach to improving the quality of teachers is to improve the initial training curriculum. In this paper, however, the focus is on improving the professionalism of vocational teachers who are already licensed and practising, through professional development approaches.

In Indonesia, vocational education is required to produce workers who have the knowledge, attitudes, and skills for work, and also the ability to continue their studies. To produce these graduates, it is essential that teachers must be competent in their field. Therefore, as an example, Office Administration Vocational Teachers (OAVT) must have industry knowledge, attitudes, and skills in order to produce quality graduates who have the education and training required by Indonesian employers of Office Administration graduating students.

The quality of teachers as professional educators is an absolute requirement for the realisation of quality education. There is no quality education without a professional teacher (BPSDM & PMP, 2012, p.8). Therefore, teachers must have professional attributes and continue to develop them to maintain quality education. Hence there is a mandated quality assurance and improvement paradigm for an effective vocational teaching model.

Although some training has been carried out in Indonesia in order to improve the competence of teachers, it appears the outcomes are still unsatisfactory. This is evident from the results of the initial competency test for teachers in Indonesia in 2012, with the highest average score of only 55.1 on a 0-100 scale (Dzulfikar, 2012). Baedhowi (2009) stated that the teacher competence post-certification score did not show an increase as expected, given that extra emphasis was placed by the Government on improving teacher competence..

There are many teachers who have not reached standard competency in Indonesia. Learning in the classroom is still dominated by the one-way lecture approach (BPSDM & PMP, 2012, p.16). Soedijarto (2008, p.53) in an analysis of results also showed that the learning atmosphere and the learning process is still dominated by the educational delivery model of hearing, notes, and memorisation. This is not the process expected by UNESCO


ISBN: 978-602-74576-0-7

(Shrimal & Sharma, 2012) through the four pillars of education, namely learning to know, learning to do, learning to be and learning to live together.

Efforts to improve teacher education qualifications through further study also have not had a positive impact on teacher performance. Ipong Dekawati (2011) stated that the effect of teachers' further study on their performance is still not optimal even after they have completed.

Based on the above it can be seen that the teacher's role is very strategic in realising quality education. However, there are still many teachers who do not meet the standards of competence specified. Despite the many efforts made to improve the competence of teachers through further training, they have not been effective. This is presumably because training programs are not aligned to the needs and professional competencies of teachers. The absence of teacher training models that are based on evidence of success, especially for OAVT, is a problem that needs to be resolved. This is supported by Roesminingsih (2008) in stating that there is still teacher inadequacy which must be addressed through further education and training. Thus, the development of training models to improve the competence of OAVT is essential.

## 2. Vocational education in Indonesia

Vocational education is a form of learning that is receiving attention by many countries. This is because it is now globally accepted that there are direct links between a country's vocational education system and economic and social development. Vocational education should receive careful attention from government, because it has a major role in addressing industry issues and unemployment. Thompson (1972, p.111) states that "vocational education is economic education as it is geared to the needs of the job market and thus contributes to national economic strength". Djojonegoro (1998, p.34) states that "vocational education is education that prepares learners to enter the workforce". Murniati and Usman (2009, p.2) state that "vocational education is education designed to prepare students to enter the specific work, position specific career, or improve the quality of workers in a particular field". Thus, vocational education is education that is closely linked to industry and employment issues.

In the context of Indonesia, the national education system is governed by Law No.20 of 2003 on the National Education System. Formal education in Indonesia consists of the three sectors of elementary education, secondary education, and higher education. Within the latter two sectors are elements of general, vocational, academic, professional, religious, and special education.

Vocational education in Indonesia is delivered in the sectors of secondary education and higher education. Secondary vocational education aims to prepare students primarily for work in a particular area of expertise. Institutions that deliver secondary vocational education in Indonesia are called Vocational Schools. Vocational education in the higher education sector is aimed at preparing learnersfor employment requiring applied skills equivalent to degree level. These institutions are called Polytechnics.

Vocational Schoools in Indonesia are grouped into six areas of industry focus, namely Technology and Engineering; Information Technology and Communication; Health; Arts, Crafts, and Tourism; Agribusiness and Agro-technology; and Business and Management (Premono, 2010). Business and Management is divided into three components, namely Administration, Accounting, and Marketing. Office Administration is a component of the Administration cluster.

According to data from the Directorate of Vocational Schools of Indonesia, the number of Vocational Schools is 10957, and the number of Office Administration Vocational Schools (OAVS) is 2564 (2013). To get a sense of regional scope, the Education Office of Yogyakarta Special Region confirms that there are 28 OAVS with 134 teachers and 4070 students in that region.

## 3. Mandated competencies for teachers in Indonesia

One of the conditions required of a teacher is competence to achieve national education goals. Sanghi (2004, p.5) states that competence is a set of skills, knowledge, attitudes, and attributes that demonstrate high performance. Amankwah (2011) notes that competence is a combination of knowledge, skills, personality and attitude to enable professional situational work. In Indonesia, in the field of education, competence is defined as a set of


ISBN: 978-602-74576-0-7

knowledge, skills, and behaviors that must be owned and actualised by teacher professionalism in carrying out teaching duties (Law No.14 of 2005). In conclusion, competence comprises sets of knowledge, skills, and attitudes necessary to do the job professionally.

Thus, a professional teacher should have a broad and deep knowledge of their discipline, good pedagogical skills and commendable professional behavior. According to Sanghi (2004, p.6), a person is considered competent if they are qualified to perform their work in accordance with the specified standards. In Indonesia, it is not sufficient for a teacher to have the required cognitive and psychomotor intelligence alone, but they must have good morals, as teachers become role models for students and society. According to Law No.14 of 2005 on Teachers and Lecturers, one of the characteristics of the teaching profession is a commitment to improve the quality of education through embracing and delivering the values of faith, piety, and morality. Ravik (2005) stated that professionalism of teachers needs to be supported by a code of ethics that provides legal as well as social norms.

Teachers in Indonesia are required to master four competencies as mandated by law. The four competencies are pedagogic competence, personal competence, social competence, and professional competencies acquired through professional education (Law No.14 of 2005).

### 3.1. Pedagogic competence

Pedagogic competence is the ability of teachers to manage student learning. According to the Decree of the Minister of Education of Indonesia regarding Standards of Academic Qualifications and Competencies of Teachers (Decree MoE 16-2007), pedagogic competencies in vocational schools are stated thus. Teachers should: a. allow learners to master the characteristics of the physical, moral, spiritual, social, cultural, emotional, and intellectual; b. understand learning theories and principles of learning that educates; c. develop curriculum related to the subject matter; d. conduct educational learning; e. utilise information and communications technology for the sake of learning; f. facilitate the development of students' abilities to actualize their potential; g. communicate effectively, empathic, and manner with the students; h. conduct assessment and evaluation processes and learning outcomes; i. utilise the results of assessment and evaluation for the sake of learning; j. take action to improve the quality of reflective learning.

Mastery of pedagogic competence is an absolute requirement for teachers to be able to effectively implement the learning process. Martin (2012, p.43) stated that pedagogical skills are an essential feature for quality teaching. Liakopoulou (2011) lists some of the skills that contribute to the effectiveness of implementing instructional models: developing curricula and school textbooks; understanding learners; applying pedagogical knowledge, and collaboration with colleagues and parents as well as creating a conducive classroom environment. Similarly, Abele, Norwig & Nickolaus (2009) note that in Germany, vocational teachers should have the ability to analyse and reflect normative specifications and pedagogical situations on the basis of pedagogic/ didactic knowledge and empirical findings.

Understanding of educational foundations is a must for the teacher. Without a good understanding, it is impossible for teachers to teach well. Sutirman (2013, p.2) concluded that a teacher should have a good knowledge and skills in the field of education and learning; have a sensitivity and empathy for the condition of students; a commitment to making the learner a quality human being, as well as having the ability to develop and use good learning materials. Similarly, an understanding of the learner is a fundamental aspect. Oliver & Rechly (2007) stated that the ability of a teacher in a classroom to organise and manage the behavior of students is very important. Teachers must understand the development of students, both psychologically and physically, in order to provide proper guidance and direction. Teachers also need to understand the curriculum, to undertake lesson planning, and develop instructional strategies including the design and use appropriate educational media.

Thus, mastery of pedagogical competence will affect the ability of teachers (including OAVT) to implement quality learning.

### 3.2. Personality competence

Personality competence as a teacher is a set of individual characteristics. According to Decree MoE 16-2007, personality competencies of teachers in vocational schools are stated thus. Teachers


ISBN: 978-602-74576-0-7

should:a. act in accordance with the norms of religious, legal, social, and national culture of Indonesia; b. present themselves as being honest, noble, and role models for students and the community; c. present themselves as being steady, stable, mature, wise, and dignified; d. show the work ethic, a high level of responsibility, a sense of pride to be a teacher, and self-confidence; e. uphold the professional code of ethics of teachers.

Kheruniah (2013) concluded that a teacher's personality competence makes a significant contribution to a student's motivation and discipline. Chang & Chang (2012) stated that the level of learning motivation directly influences learner satisfaction. Therefore, improvement in a student's motivation can be achieved by the quality of a teacher's personality competence.

A teacher must have a good personality, because a teacher should be emulated by their students and by society. Killen (2013, p.30) describes some of the personalogical characteristics of effective teachers, namely: enthusiastic, confident, optimistic, committed, commpassionate, curious, patient, and ethical. Forming positive interpersonal relationships between teachers and students is an important factor in creating an atmosphere conducive to learning in the classroom. Teachers must show a concern and care for students (Jones & Jones, 2001, p.83). A teacher who is not honest, not disciplined and possesses other negative traits will not be an authoritative teacher in front of students.

Hence, a teacher's personality can impact on the effectiveness of the learning undertaken. This directly contributes to the quality of the vocational education process.

### 3.3. Social competence

Social competence is the ability of teachers to be subsumed into, and supported by, the community they serve. For vocational teachers, this would include industry and employers. According to Decree MoE 16-2007, social competencies of teachers at vocational schools are stated thus. Teachers should: a. be inclusive, act objectively, and not discriminatory and show consideration for gender, religion, race, physical condition, family background, and socioeconomic status; b. communicate effectively, be empatheti, and courteous to fellow educators, staff, parents, and community; c. adapt to duty in the entire territory of the Republic of Indonesia, which has a large social and cultural diversity; d. communicate with the community and other professions orally and in writing or other form.

Fagan (2011) stated that social competence involves many elements, including: the ability to regulate emotions; knowledge and experience of social interactions; and understanding social situations and customs. Vocational teachers should have high levels of aptitude, intrinsic value and social utility value, which all associate with professional commitment (Berger & D'Ascoli, 2012). As social beings, teachers need to interact with others, both within the teaching environment, and within their communities including industry and employers of their students. Hence, a teacher must have mastery of social competencies.

### 3.4. Professional competence

Professional competence is the ability to master the knowledge and skill of the professional discipline delivered by the teacher. Professional competence by Decree MoE 16-2007 is stated thus. Teachers should: a. master the material, structure, concepts, and scientific mindset that supports the subject matter; b. master the core competence and higher level competence of the subject matter; c. develop teaching and learning materials creatively; d. self develop in a sustainable manner with the professionalism of reflective action; e. utilise information and communications technology.

Sparks (2002) asserts that discipline (vocational) expertise of the teacher is one of the most important variables that influence vocational student achievement. In order to produce graduates who are knowledgeable and skilled in the field of Office Administration, the OAVT must be a master of the knowledge and skills of the discipline.

## 4. Professional competency of the Office Administration Vocational Teacher

In addition to mastering pedagogical, social, and personal competence, OAVT in Indonesia must also possess the vocational competencies required of employees in the Office Administration industry, in accordance with the National core competency set


ISBN: 978-602-74576-0-7

for students at OAVS. OAVT in Indonesia must deliver 18 core competencies to their students. These are: 1. Understanding the principles of the administration office; 2. Applying basic communication skills; 3. Applying the principles of co-operation with colleagues and customers; 4. Applying safety, occupational health, and the environment; 5. Operating applications software; 6. Operating presentation applications; 7. Managing office equipment; 8. Performing administrative procedures; 9. Handling document copying; 10. Handling mail / office documents; 11. Managing archival systems; 12. Creating documents; 13. Processing business trips; 14. Managing meetings / conferences; 15. Managing petty cash funds; 16. Providing service to customers; 17. Managing data / information in the workplace; 18. Implementing the administrative office at the workplace.

The core competency set is an industry minimum level for office administrative work. Therefore, for the OAVT to deliver the core competency set to their students, they must also exhibit mastery of the core competencies above.

**A competency-based training model for improving the competency of Office Administration Vocational Teachers in Indonesia**

Sudira (2009) stated that the concept of competency-based training (CBT) focuses on what learners can do: the ability to behave, think, and act consistently as an embodiment of knowledge, attitudes, and skills possessed. For vocational teachers, CBT puts participants in a mastery role in planning their learning, and exploring and interpreting the necessary learning materials. Mucahy (2000) asserts that CBT is an education and training model that is coherent and universal, and that CBT is an integrated implementation model and can be applied to various fields, including teacher preparation and further study.

Blank (1982, p.26) describes the 12 stages of implementation of CBT. These stages of CBT can be grouped into four phases: analysis, design, development, and implementation and evaluation.

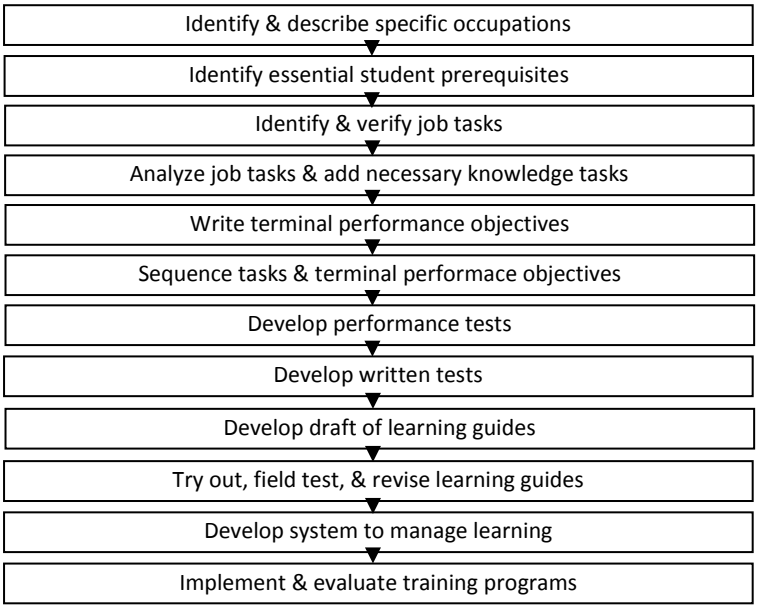



Figure 1. Twelve stages of competency-based training (Blank, 1982, p.26)

Sudira (2009) stated that CBT should be carried out by placing the student as a subject of learning. Learning is focused on the acquisition of job competence, so that learning objectives should be specific. The learning process should use an individualized approach, using active methods in the


ISBN: 978-602-74576-0-7

context of industry practice. The vocational teacher acts as a facilitator by providing direct and timely feedback to the students. In addition, modules (as a cluster of skills and underpinning knowledge) become an important curriculum component to guide students in learning. To determine mastery of competencies by students, assessment should be against standard performance criteria. CBT must be implemented with clear objectives and well stated competencies. Learning is done individually with the variety of methods that stimulate the activity of students. Teachers act as facilitators only and receive direct feedback. Teachers assess learning with reference to standard industry criteria (competencies).

Based on the above principles, CBT accords with the principles of adult learning. QOTFC (2005) lists the principles of adult learning: adults are internally motivated and self-directed; adults bring life experiences and knowledge to learning experiences; adults are goal oriented; adults are relevancy oriented; adults are practical; and adult learners like to be respected. Hence CBT is very suitable to be applied in a training program for adult participants undertaking professional development (in this case Office Administration Vocational Teachers).

In addition to the principles as proposed by Sudira and QOTFC above, Mucahy (2000) identified four characteristics of CBT. These are: training for specifically defined outcomes; institution or industry involved in defining the training results; training results illustrate mastery of the competency standards; and training programs based on core competencies for industry organizations.

Mucahy's opinion confirms that CBT should be based on an analysis of an organization's needs. Training results should be meaningful to the improvement of competence in accordance with the standards of competence specified.

For Australia, NCVER (1999) stated that CBT has significant support from Australian industry. Employers, human resource managers, training managers, supervisors and industry training advisory bodies expressed satisfaction with CBT. CBT is viewed more positively by teachers and assessors of private (non-TAFE) providers of vocational education and training.

McAleavy & McAleer (2006, p.22) stated that the CBT model for teachers is based on the assumption that teachers who work in schools require different skills and attitudes compared to vocational teachers. Hence, that the model for the development of professional competence of vocational teachers should be different. Also, they stated that the training program given to teachers should be adjusted to the level of skills and competence of their job. Teacher training should be customised according to teachers' background experience, knowledge, and their main tasks.

Therefore, CBT is a suitable training model to improve the professionalism of teachers in vocational schools in Indonesia.

**1. Developing a model for the professional development of Office Administration Vocational Teachers.**

The vocational teacher's job is a dynamic one. Vocational knowledge and skills for the workforce are constantly progressing. Similarly, technological developments in their discipline often change rapidly. It is therefore necessary that coaching and development efforts are ongoing to improve the professionalism of teachers.

Kennedy (2005) identified nine models of teacher professional development. These are: "training award-bearing; deficit; cascade; standards-based; coaching / mentoring; community of practice; action research, and transformative". Based on Kennedy, training can be bundled into one common model to develop the professionalism of teachers.

Smith & Gillespie (2007) distinguish two models of professional development: traditional professional development and job-embedded professional development. Traditionally oriented models increase the knowledge, skills, and competencies of teachers to teach individually and introduce new learning approaches. Implementation of this model is usually in the form of off-site training. The job-embedded model is more directed at improving the quality of student learning and helps teachers to address specific problems encountered. Implementation of this model is typically in the classroom or workshop. Rodrigues (2004) stated that for many years teacher professional development has involved teachers attending conferences, and taking part in seminars, workshops and short courses. These elements of teacher professional development were used to help introduce new policy, new skills, new methods and new knowledge.


ISBN: 978-602-74576-0-7

In addition, in accordance with the Indonesian Government Regulation No.74 of 2008, teachers also have the opportunity to develop and improve their academic qualifications and competence, as well as for training and professional development in their vocational field. The Government Regulation lists the types of professional development activities that teachers should access. These include further education and training, internships, writing publications and papers, researching and developing innovative pedagogic practices, and submitting for achievement awards.

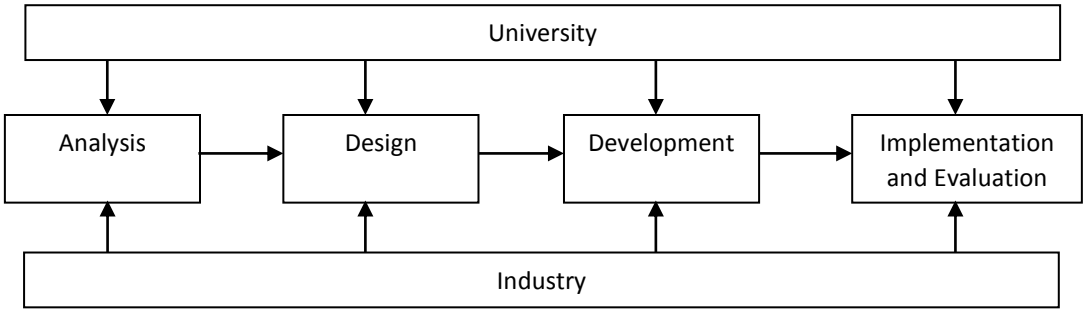
It is known that further education and training is one form of continuous professional development (CPD) of teachers. Megginson & Whitaker (2004, p.5) state that CPD is a process by which individuals take control of their own learning and development, by engaging in an on-going process of reflection and action. Fraser (2010) concludes that CPD contributed to teachers' views of ideal forms of effective science teaching which differed from the real forms practised in the classrooms. The gap between ideal and real forms arises from a range of social and cultural factors relating to classroom, school and community. This is reinforced through teacher professional development policies issued by the Agency for Human Resources Development and Education Quality Assurance (BPSDM & PMP, 2012, p.19) which state that an increase in the competence of teachers can be gained through various strategies implemented in the form of training and other means. Training programs can be done in the form of in-house training, internships, school partnerships, distance learning, customized training, short courses, and internal coaching by school.

From the above discussion, it is reasonable to infer that a sound approach in developing professionalism of the Office Administration Vocational Teacher is CBT. A possible model is that developed by Blank (1982, p.26). However, CBT for OAVT must involve two parties, namely education experts (university) and practitioners (industry). It should be noted here that Indonesia does not have a well-defined vocational education sector as other countries eg. Australia, Germany (Section 2). Hence, the key institutions that must be involved in the proposed professional development program are universities and industry.

Jordaan (2009) stated that to achieve high-quality vocational education, it must be done in conjunction with industry involvement through proper job training and/or internships. Tope (2013) said that the three main reasons behind the inability of universities to provide skilled people for industry are problems in designing the vocational curriculum and training methodology, and weaknesses of the vocational teacher as a coach. Industry has a role in resolving the above. To develop pedagogical competence in vocational teachers the university sector should be involved. Whilst for developing industry and work-based competence, the relevant industry should be involved.

Based on these considerations, the authors argue that the optimal model to develop the professionalism of the OAVT is a CBT-based model. The design of this model includes the four stages of analysis, design, development, and implementation and evaluation.

The **Analysis** phase includes: identification of the vocational teacher core pedagogical competencies, identification of relevant industry practitioners to be involved in developing the industry competence required by OAVT, and identification of educational experts who will be involved in designing the CBT program of vocational teacher professional development. The **Design** phase includes: formulating training objectives, preparing a syllabus and a training plan. The **Development** phase includes: development of training materials and training manuals, development of media strategies and training for the teacher, and development of industry performance and teaching performance test instruments. The **Implementation and Evaluation** phase includes: conducting training, evaluation industry performance and evaluation of teaching performance.





ISBN: 978-602-74576-0-7

Figure 2. CBT model for professional development OAVT

Figure 2 shows the role of universities and industries ranging from the analysis phase to the implementation and evaluation phase. The following table (Table 1) lists the 4 phases and the respective university and industry roles.

Table 1: The role of universities and industry in the development of CBT for OAVT

| Phase | University roles | Industry roles |
|---|---|---|
| Analysis | 1. identification of core competencies that must be taught by OAVT<br>2. identification of relevant education experts to be involved in developing the competencies of OAVT | 1. identification of core competencies that must be taught by OAVT<br>2. identification of relevant industry practitioners to be involved in developing the competencies of OAVT |
| Design | 1. formulating training objectives<br>2. preparing a syllabus and training plan | 1. formulating training objectives<br>2. preparing a training plan |
| Development | 1. developing training materials<br>2. developing training manuals<br>3. developing strategies and media training<br>4. developing teaching performance test instruments | 1. developing training materials<br>2. developing training manuals<br>3. developing strategies and media training<br>4. developing test instrument for workplace performance |
| Implementation and Evaluation | 1. implementing teaching skills training<br>2. evaluating the performance of teaching | 1. implementing job skills training in industry<br>2. evaluating the industry skills of the student |

In general, the role of universities and industry in the CBT-based professional development role for OAVT is similar. But there is a subtle difference. The university's role is to analyze, design, develop, and evaluate in terms of the teaching skills of the OAVT. Teaching skills that must be developed through CBT-based professional development include lesson planning, selecting and using appropriate learning media, selecting and using appropriate learning methods, and assessment. The role of industry is to analyze, design, develop, and evaluate in terms of the industry content knowledge of the OAVT. Industry is responsible for providing knowledge and skills in the field of Office Administration to OAVT.

**2. Implementation of the professional development program**

It is instructive to outline the CBT model that will be used for the proposed professional development program. It should be noted that initially the focus will be on Office Administration Vocational Teachers from the school sector (vocational school). CBT model implementation will start with grouping OAVT based subjects taught. This grouping is intended to determine class groups. It is envisaged that there will be around 20 teachers in each class. Participants will be briefed on the technical implementation of the training that will be conducted.

After OAVT understand the concept and implementation of technical training, then they will undertake competency-based industry skills training to enhance their the vocational skills and knowledge that they already possess. For some teachers this will be a 'refresh' of their industry skills base. Industrial skills training instructors are industry practitioners in the field of Office Administration. The industry and pedagogical skills training will be integrated.


ISBN: 978-602-74576-0-7

Referring to the model of Pedagogical Content Knowledge (Phillips, Miranda, & Shin: 2009), a vocational teacher will ideally have pedagogical knowledge, industry knowledge and skills, as well as an understanding of the context of work in the industry. Therefore, competency-based training for OAVT should start with strengthening the knowledge and skills of the relevant industry, in this case Office Administration. Teachers must be equipped with office administration skills and a good understanding of the context of administrative office work. It is hoped that this new approach to professional development (competence-based, integrated pedagogy and skills mastery) will lead to enhanced quality of the delivery of vocational education for the Office Administration industry in Indonesia.

## 3. Conclusion

One of the ways to improve teachers' competence is through education and training. A prevalent training model developed for the field of vocational education is CBT. Office Administration is a key industry area taught by vocational teachers in Indonesia, either in the high school environment (vocational school), or the higher education environment (Polytechnics). To improve the quality of office administration vocational graduates, a CBT-based professional development model for OAVT has been proposed. If planned and structured optimally, this will ensure the improving quality of OAVT, and hence the productivity of graduate students working in the industry.

**Acknowledgments**

The first author in this paper was supported by a Directorate General of Higher Education Indonesia scholarship.

## References

Abele, S., Norwig, K., & Nickolaus, R. (2009). Vocational teacher education in five european countries: analysis and comparison. *Profesinis Rengimas: Tyrimai Ir Realijos, 2009, p.28-43.*

Amankwah, E. (2011). Relevance of Competency Based Training in Polytechnic Education for National Development [electronic version]. *Journal of Education and Practice*, 2, 7.

BPSDMP dan PMP. (2012). *Kebijakan pengembangan profesi guru: materi pendidikan dan pelatihan profesi guru tahun 2012*. Jakarta: BPSDMP dan PMP Kemdikbud.

Baedhowi. (Nopember 2009). *Tantangan profesionalisme guru pada era sertifikasi guru.* Makalah disajikan pada pidato pengukuhan guru besar manajemen sumber daya manusia pada Fakultas Keguruan dan Ilmu Pendidikan UNS.

Berger, J. L. & D'Ascoli, Y. (2012). Becoming a VET teacheras a second career: investigating the determinants of career choice and their relation to perceptions about prior occupation. *Asia-Pacific Journal of Teacher Education, 40:3,* 317-341.

Blank, W. E. (1982). *Handbook for developing competency-based training program.* Englewood Cliffs, New Jersey: Prentice-Hall Inc.

Chang, I-Ying & Chang,Wan-Yu (2012). The effect of student learning motivation on learning satisfaction [electronic version]. *The International Journal of Organizational Innovation Vol 4 Num 3 Winter 2012, p.281-305.*

*Depdiknas. (2003). Undang-Undang RI Nomor 20, Tahun 2003, tentang Sistem Pendidikan Nasional.*

*Depdiknas. (2005). Undang-Undang Pemerintah RI Nomor 14, Tahun 2005, tentang Guru dan Dosen.*

*Depdiknas. (2008). Peraturan Pemerintah RI Nomor 74, Tahun 2008, tentang Guru*

*Depdiknas. (2007.) Peraturan Menteri Pendidikan Nasional Republik Indonesia Nomor 16, Tahun 2007, tentang Standar Kualifikasi Akademik dan Kompetensi Guru*


ISBN: 978-602-74576-0-7

Djojonegoro, W. (1998). *Pengembangan sumber daya manusia melalui sekolah menengah kejuruan (SMK)*. Jakarta: PT Jayakarta Agung Offset.

Directorate of Vocational School Of Indonesia (2013). *Data pokok Sekolah Menengah Kejuruan*. Retrieved from http://datapokok.ditpsmk.net, October 16, 2013.

Dzulfikar. (17 Maret 2012). Hasil uji kompetensi awal guru 2012 memprihatinkan. *Kompasiana.com.*

Fagan, Tar. (2011). *CORE Education*. Dowloaded from http://eceonline.core-ed.org/groupcms/view/198/, September 17, 2013.

Fraser, C.A. (2010). Continuing professional development and learning in primary science classrooms (electronic version). *Teacher Development, Vol.14, No.1, February 2010*, 85-106.

Ipong Dekawati. (2011). Manajemen pengembangan guru. *Jurnal Cakrawala Pendidikan*, XXX, 2.

Jones, V. F. & Jones, L. S. (2001). *Comprehensive classroom management: creating communities of support and solving problems*. Needham Height: Allyn & Bacon A Person Education Company.

Jordaan, Y. (2009). The role of higher education and industry in supporting career goals and decision-making. *Industry and Higher Education, 23 (5),* 379-390.

Kennedy, A. (2005). Models of continuing professional development: a framework for analysis [electronic version]. *Journal of In-service Education*, 31, 2.

Kheruniah, A. E. (2013). Teacher personality competence contribution to a student study motivation and discipline to fiqh lesson. *International journal of scientific & technology research volume 2, issue 2, february 2013.*

Killen, R. (2013). *Effective teaching strategies: lesson from research and practice*. South Melbourne: Cengage Learning Australia.

Liakopoulou, M. (2011). The professional competence of teachers: which qualities, attitudes, skills and knowledge contribute to a teacher's effectiveness? [electronic version]. *International Journal of Humanities and Social Science*, 1, 21.

Martin, T, O'donoghue, T, & O'neill, M. (2012). *Teacher and teaching in vocational education and training institutions: reflecton from Western Australia*. Nova Sciences New York: Publisher, Inc.

McAleavy, G. & Mcaleer, J. (2006). Competence-based training [electronic version]. *British Journal of In-Service Education.* Downloaded from **Error! Hyperlink reference not valid.**, 09 November 2012.

Megginson, D. & Whitaker, V. (2004). *Continuing professional development*. London: Chartered Institute of Personnel and Development.

Mulcahy, D. (2000). Turning the contradictions of competence: competency-based training and beyond [electronic version]. *Journal of Vocational Education & Training, 52:2*, 259-280.

Murniati, AR & Usman, N. (2009). *Implementasi manajemen strategik dalam pemberdayaan Sekolah Menengah Kejuruan*. Bandung: Citapustaka Media Perintis.

Oliver, R. M., & Reschly, D. J. (2007). *Improving student outcomes in general and special education: effective classroom management.* Washington, DC: Learning Point Associates, National Comprehensive Center for Teacher Quality.

Phillips, K. R., Miranda, M. A., and Shin, J. (2009). Pedagogical Content Knowledge and Industrial Design Education. *Journal of Technology Studies*, Winter 2009: 47-55.


ISBN: 978-602-74576-0-7

Premono, A. (2010). Kompetensi keahlian Sekolah Menengah Kejuruan: antara kebijakan dan realita. *Jurnal Pendidikan Penabur - No.15/Tahun ke-9/Desember 2010*.

QOTFC (2005). *Student supervisors toolkit basic principles of adult learning*. Downloaded from http://www.qotfc.edu.au/resource/documents/reference_document_3_1.pdf., 26 September 2013.

Ravik, K. (2005). Profesionalisme guru dan peningkatan mutu pendidikan di era otonomi daerah. *Paper presented at a National Seminar in Wonogiri, Central Java, Indonesia, on July 23, 2005*.

Rodrigues, S. (2004). *A model of teacher professional development: the partnership in primary scince project*. Hauppauge, New York: Nova Science Publiisher, Inc.

Roesminingsih. (2008). Model pelatihan berbasis kelompok kerja guru untuk meningkatkan kemampuan menyusun perangkat penilaian berbasis kelas. *Jurnal ISJD PDII LIPI, 2, 2*, 1-13.

Sanghi, S. (2004). *The handbook of competency mapping: understanding, designing and implementing competency model in organization*. New Delhi: Response Books A division of Sage Publications India Pvt. Ltd.

Shrimal, P. & Sharma, M.P. (2012). UNESCO's four pillars of education, implications for schools. *Education India Journal: A Quarterly Refereed Journal of Dialogues on Education*, ISSN 2278- 2435, Vol. 1, Issue-3.

Smith, C. & Gillespie, M. (2007). *Research on professional development and teacher change: implication for adult basic education*. Downloaded from, http://www.ed.gov/teachers/ tools/initiative/factsheet.pdf, 10 Juli 2012

Soedijarto. (2008). *Landasan dan arah pendidikan nasional kita*. Jakarta: Kompas Media Nusantara.

Sparks, D. (2002). *Designing powerfull professional development for teacher and principles*. Downloaded from www.nsdc.org/ sparksbook.html., 10 September 2012

Sudira, P. (2009). *Tujuh prinsip dasar pendekatan pembelajaran berbasis kompetensi*. Downloaded from http://blog.uny.ac.id/putupanji/tujuh-prinsip-cbt/, 15 Desember 2012.

Sutirman. (2013). *Media dan Model-Model Pembelajaran Inovatif*. Graha Ilmu: Yogyakarta.

Thomson, J.F. (1972). *Foundations of vocational education: social and philosophical concepts*. Englewood Clifts, New Jersey: Prentice-Hall, Inc.

Tope, R. (2013). *Industry role key to development of skill-based education: Minister*. Retrieved from http://articles.timesofindia.indiatimes.com/2013-03-13/pune/ 37681881_1_skill-development-mvec-maharashtra-vocational-education-commission, 26 September 2013.


ISBN: 978-602-74576-0-7

# TEACHERS STRATEGIC APPROACHES: HANDLING CLASS IN VARIOUS CONDITIONS

KARJONGKO S. Pd.

*English Department, University of Sarjanawiyata Tamansiswa, Yogyakarta, Umbulharjo, Indonesia*

Abstract

The purpose of this paper is to help teachers in handling class in various situations. The central argument of this paper is teachers should know how to act properly in undergoing the class activities since they play central role in learning process. A lot of teachers confuse how to deal with the various environments of the class. The teachers will feel like staying in heaven when they teach the class that is already conducive, but not in vice versa. On the other side, actually there are a lot of books that guide the teachers how to handle class, but unfortunately those books are most likely talking about theory rather practicality. By that condition, this paper is becoming important to read and implement by teachers inside of the class. There are ten situations that will deeply discuss in this paper related how the teachers deal with: (1) first meeting (2) various students' abilities (3) less motivated students (4) students who bored to learn (5) students who break the rule (6) students who cannot keep silent (7) the students who fall in love with the teacher (8) how to ensure the student's understanding (9) teachers' inability to answer questions asked by their students, and lastly (10) how the teachers end the class. One of the important things to attract the students to learn is motivation. Motivated learners are more enthusiastic, goal-oriented, committed, persistent and confident in their learning, willing to work hard and determined to not easily give up before achieving their goal (Renandya 1). It shows that motivation takes a prominent role in teaching and as teachers should inject and blend the motivation inside of every single learning situation, so there will be continued motivation in side of the students. Intrinsic motivation is better than extrinsic motivation, but only a few students have intrinsic motivation, while the rest they may have or even do not have extrinsic motivation. The teachers need to give students extrinsic motivation when they do not have both extrinsic and intrinsic motivation. For further discussion, this paper will also figure out how to induce an extrinsic motivation that is blended in various situations of the class, so the reader could have a clear view on how to manage the class in various conditions. On the other hand, teachers should keep in their mind what level of students they teach, so there will be a proper lesson that will be given to the students (Brown 98). It is clearly emphasized that beside motivation, teachers also need to act in proper way how to understand the student's abilities. When teacher cannot act in line with student's capability, it leads to only hampering the learning activities. Finally, it shows why the teacher's strategic approaches in handling various class conditions are very important to be learned by teachers around the world in order to create ideal learning and teaching process.

Key words: teacher's strategic approaches, handling class, various situations.

## Introduction

The parameter of success in teaching is whether or not the students can learn independently. Nowadays, there are only some students that are able to learn independently. The reason why it could happen is because only few students who have intrinsic motivation to learn, while others do not have it. As teachers, this is the right time of them to create an external motivation for students who do not have intrinsic motivation. On the other hand, creating external motivation also empowers students who only have intrinsic motivation.

Although a lot of teachers have already well known about giving motivation to the students, in reality the implementation of creating motivation still becomes a barrier of teacher to make students willing to study. The problem that exists in status quo is a lot of teachers teach their students monotonously or they simply do not know how to act when meet with other students and situations. It results a low interest of the students to learn, and finally it hampers the students to develop their potency.

Actually creating a motivation can be done in the long run of study process from the first till the end of the meeting. In doing that, the teacher should deal with various kinds of the students and situations. To ensure how teachers act in proper way, there will be ten conditions or situations that will be discussed in this paper, they are: (1) first meeting (2)


ISBN: 978-602-74576-0-7

various students' abilities (3) less motivated students (4) students who are bored to learn (5) students who break the rules (6) students who cannot keep silent (7) the students who fall in love with the teacher (8) how to ensure the student's understanding (9) teachers' inability to answer questions asked by their students, and lastly (10) how the teachers end the class.

**1. How the Teacher Should Act in the First Meeting.**

The first meeting is one of the important moments in getting student's attention. In this part the teachers need to give a good impression from the first beginning. When teachers are able to give a good impression, for the next day they will easily lead the students to learn. In reality, not all teachers succeed to give a good impression toward the students because they do not know how to give a good impression. Most likely the teachers who failed, all of them are the new teachers who are lacking in terms of teaching's practicalities.

To give a good impression toward the students, the teachers need to show that they are professional such as Kelly said that "do not point out your newness. Don't state that this is your first time teaching. Remember, student teaching counts" (10). It shows that acting as professional teachers is needed. Beside professionalism, the teachers should also be friendly. Boyce said that "Always be smiling. Smiling shows that you are positive and approachable, smiles also inspire others and show them that you are a confident leader" (6). Teacher should also not be too strict with the rules and make it flexible, not make students afraid and make them comfort to learn, make a close relation by knowing the student's name and their background, last but not least teachers need to show why the subject that the students will learn is very important to be learned. Thus, the students will understand the reason why they should learn that subject. Most of the teachers forget or even further they do not know that they need to provide information why the subject to learn is very important for student's life. So, it results to the less of student's attention to learn.

On the other hand teachers should analyze how far the student's perform in the first meeting, so teachers will be able to give the proper lesson to the student based on their capability. On the second layer, the teachers also need to know the student's need, and what method that students need to learn. Thus, there will be comfort zone for students to learn.

**2. How to deal with the various student abilities**

Inside class, there are various kinds of students. There are students who have high, middle, and low abilities to absorb the lesson. There are students who are good and less good looking, and there are students who are confident and less confident. In dealing with these kinds of situations, the teachers should act as fair as possible, not only give attention to the students who are good looking, confident, or high capability in understanding the lesson. When teachers just give attention to particular of the apparently good side, there will be a social jealousy and gap among students. It is in line with what Davies and Gunshakar said, "Teachers should be equipped in teacher education program to help overcome problems of social deprivation and work towards constitutionally mandated goals of equity and social justice (11)." Social jealousy and gap among students are problems because there are students who feel that they are not important aspects of class, and teachers never give them attention or even a chance to involve in the lesson. It creates further impact: some students may be reluctant to actively involve themselves in the lesson. When they are reluctant to actively participate in the lesson, it will hamper them to develop their talents.

The case of social jealousy and gap among students often happened inside the class room. To avoid this condition, teachers should give attention fairly and make students work in group or at least in pairs. Spread and mix them with the students who are not so gifted. Do not put the students who have high abilities, good confidence and good looking in one group. When teachers do that, there will be a tendency that those students will only want to communicate with the students who have the same level. The reason why they would do so is because they are already habituated to only communicate with the one who have the same level with them in the long run. They will feel awkward when cooperate with the ones who have lower abilities compared to those of them or they will even less careless to other students who have difficulties in understanding the lesson given by the teachers.

The purpose of education is not only creating a student who good at academic field, but on the other hand the student also should be good at soft skills such as: care, tolerance, and good cooperation with others. Those kinds of soft skills will only be achieved when the students are habituated to learn, share, and work together without segmenting them based on their differences.


ISBN: 978-602-74576-0-7

### 3. What the Teaches Need to Do with Less Motivated Students

Inherently, students who do not have willingness to learn usually do not have something to achieve or teachers do not know how to approach those students to learn.

Maslow said what people need within a hierarchy arranged in the following order of priority:

1. Physiological needs (sleep, thirst)
2. Safety needs (freedom from danger, anxiety, or psychological threat)
3. Love needs (acceptance from parents, teachers, peers)
4. Esteem needs (mastery experiences, confidence in one's ability)
5. Needs for self-actualization (creative self-expression, satisfaction of curiosity) (qtd. in Brophy 6)

When teachers find out these kind of situations, the first thing that teachers need to do is showing why the lesson that teachers give is interconnected with the students life, the students can use the lesson given by the teachers in their daily life, and the students will have a reason to study.

Secondly, teachers need to give motivation in every meeting. How to give motivation in every meeting or even make students always study at home is by giving them question or quiz before the lesson begin in every meeting. The one who can answer the question will have an additional scores, such questions drive students to always read or learn at home to prepare themselves to answer the question from the teaches in every meeting in order to get the additional score.

Thirdly, the teachers should know the students' hobbies. By knowing it, the teacher can make lessons that increase student attentions, so students will like following the lesson without the teacher asking them to learn. They will think that it is inherently the same with their hobbies. For example, students whose hobby are watching cartoon will easily want to learn when they learn about it. Then teachers can ask them to use English conversation by using the name of every actor in cartoon that student's like to watch.

### 4. How the Teachers Face the Students that Bored to Learn

Monotonous learning will make students unmotivated to learn because there is nothing new which need to be explored. In this kind of situation, teachers need to use various methods and materials during teaching learning process. On the next layer, as the teachers better to not always too focus on the lesson. Give students some break by giving jokes or humors in the middle of the lesson, so the students can relax during study. The other thing that is also important is teachers need to ensure that students can follow the lesson given. According to Renandya, the task given should provide an optional challenge (7). It shows that the best lesson is not too easy and also not too difficult, but the best lesson is the lesson that is challenging for the students. When the lesson is too easy, there is no challenge for students to learn and while the lesson proves to be too difficult, the students will be too frustrated to learn.

### 5. How Teachers Deal with the Students that Break the Rules

In the age of teenagers, breaking some rules is a normal thing because in this age people are looking for their identity. The emotion of students in this age is still unstable. Sometimes they can control it but sometime they could not. Teachers need to understand this condition. When students break the rules in school, there are two kinds of approaches can be applied by the teachers. Teachers can use hard and soft approaches. The hard approach that can be applied is by giving low scores to the students who break the rules. Some of the students will be afraid when their scores are getting lowered down, so the teacher can easily manage them. The one that should be noted is the hard and soft approaches sometimes cannot be applied to all kinds of students. Some students can be approached by hard approach but some others only can be approached by the soft one, or the teachers can combine both of them to students depending on the situations.

One thing that sometimes teachers make mistake is when there are students who are against the teacher inside of the class, teachers directly response or judge the students in the classroom. As teachers, they should not do such a thing to the students. When the teacher against back to the students directly in class, the students do not want to follow the teachers' rules because when the students follow the teachers' rules they will feel shy to their friends. The best approach that teachers need to do is bring the students to the teachers' office and talk face to face with the students. This way, the students do not feel shy with their friends. Second of all, the students would not have more power when they talk face to face with the teachers because there is no one can help them the teachers' office. Give students


ISBN: 978-602-74576-0-7

understanding and do not directly give them punishment, but give them a chance to change their behavior during the learning process.

The soft approach that can be used by the teachers is by giving suggestion, such as talking about their future, their parents' condition who work hard for money to pay the school fee or other things that need to be talked as suggestions.

**6. How Teachers Teach the Students who Cannot Remain Silent**

The students who cannot remain silent often happened in the class. This case is a normal thing, because students are not robots that can always maintain silence. The thing that teachers should do is to make the class alive, teach the class using loud voice. Teaching students should not always in silent condition, some of the students even have a better comprehension when being taught which using loud voiced. Teachers can teach these kinds of students by using games, so that the students can keep talking but also enjoy their learning process. Teachers really need to pay attention on how the characteristics of their students are and try to give best approach to their students based on the teachers' judgment.

Games have several benefits:

- Help students to learn more about themselves
- Enable students to form close bonds with their classmates by creating a shared experience
- Foster a sense of community in the classroom where all students feel comfortable expressing ideas in a safe learning environment
- Energize students to become more active participants in the learning process (Dunlap 3)

Actually some students who cannot remain silent are just because they cannot express their ideas properly. Through games they can express their ideas, and moreover in games there is a rule when students can speak or when the students should remain silent. This rule also would indirectly teach students how to necessarily remain quiet in the learning process.

7. **How Teachers should Deal with Students who Fall in Love with them**

As students, loving their teachers as teachers is a normal thing, but it is not good when the students fall in love their teachers in the same way they love their girls or boyfriends. As teachers, they need to be very careful when their students really love them in such away. Teachers should keep the distance which their students, not to be really close or really far from the students. By maintaining this distance teachers can avoid invoking students' improper feeling. When the students really fall in love with their teachers, the teacher should be very careful when they act in front of that student because once teacher did mistake or hurt the students' heart, they do not want to follow the lesson in a class.

Actually making students loving their teacher is good for the teachers in terms of attracting students to learn. The one who love somebody, they will easily follow what they are loved to. When students love the teachers, the teachers can easily give suggestion to their students to learn every day. So, it makes the teachers prevail to educate them. Yet in the contrary once the teachers break their hearts, they will immediately do not want to follow what the teachers say to them.

**8. How to Ensure the Students Understanding about the Lesson Given**

Mostly teachers ensure their students' understanding is by asking them like, "have you understood or do you understand what I mean". Asking the students by using a question such as, "Have you understood about the lesson or not" is not the best way to ensure students' understanding. It is because the students will only answer "Yes I have or no I have not". Some of students are afraid to say "No, I have not understood". They are only following their friends' answers, and actually they do not understand yet about the lesson given. The best way to know that the students have already understood about the lesson is by giving a test. Not only asking "Do you understand or not", but also give a test or quiz directly to the students. When the students can answer those questions given, it will assure that they have already understood about the lesson given, and when they cannot answer those questions, it is also proved that they do not understand about the lesson given by the teachers.

**9. What Teachers Need to Do when they Cannot Answer Questions from Students**

During the learning process, sometimes teacher cannot answer questions from student. Unfortunately some of teachers who lack teaching practices are confused about how to deal with this situation. Some of teachers response this situation by showing their unprofessionalism such as they will directly keep silent like acting that they do not know the answer or giving the wrong answer to the students. Some of the students might test their teacher by asking them a question, and good teacher need to response this appropriately. Even if there are


ISBN: 978-602-74576-0-7

times when teachers cannot answer the students' question is a normal thing, but teacher should not embarrassed themselves by cannot answer students' question. As teachers, they need to show that they are really master their lessons.

There are two things that teachers need to do. The first is by giving back that question to the other students. By giving back that question to the other students, there is a possibility that the other students know the answer. So, the teachers do not show that they are not professional by cannot answer the question from their students. On the second layer in the case that no one knows the answer, as teachers need to keep calm and try to answer that as far as teachers can, for the next meeting the teacher should promise that he or she will look for the answer. Last but not least, the teachers need to always improve their ability in mastering their material of teaching.

10. **How Teachers should End the Class.**

In ending the class sometimes some of teachers forget to give last chance to students to ask something that the students might not understand yet. As teachers, they always need to ensure that their explanation has been understood well by their students, so there will be no doubt inside the students' mind. To make sure, in the future that they do not make mistakes, teacher should habituate student not to make mistake twice by correcting the things that students do wrong. As Richards said "Language learning was viewed as a process of mechanical habit formation. Good habits are formed by having students produce correct sentences and not through making mistakes" (4).

Second of all, the teachers need to review on teaching materials that have already learned in the end of the lesson. To end up the lesson, the teachers can ask students to make a phrase or a sentence related to the lesson given. From this phrase or sentence made by the students, as teachers they can know how much their students can absorb the lesson has been given by the teacher.

**References**

Brown, H. Douglas. *Teaching by Principles an Interactive Approach to Language Pedagogy*. San Fransisco: Addison Wesley Longman, 2001. Print.

Powell-Davies Philip, and Gunashekar Paul. *English Language Teacher Education in a Diverse Environment.* India. n.p. 2013. *eBook Collection*. Web. 8 Feb. 2016.

Graduate Program Sarjanawiyata Tamansiswa University. *The 215 International Conferrence on English Language Teaching* "*English Language Teaching Challenges in Asia"*. Yogyakarta: English Education Department Graduate Program Sarjanawiyata Tamansiswa University, 2015. Print.

About Education. "10 Things New Teachers Should Do for the First Day of School" *712educators.about.com.* Melissa Kelly, 10 Dec. 2014. Web. 2 Feb. 2016.

British Council. "Build confidence through leadership" *teachingenglish.org.uk.* Boyce Rachel, n.p. Web. 2 Feb. 2016.

Brophy, Jere. *Motivating Students to Learn.* London:Lawrence Erlbaum Associates, 2004. Print.

Richads, Jack C. *Communicative Language Teaching Today*. United States of America: Cambridge University Press, 2006. Web. 22 Feb. 2016.

Dunlap, Delia. *Games and Icebreakers for the ESL Classroom*. United States of America: Department of State Nouakchott, 2013. Web. 24 Feb. 2016.


ISBN: 978-602-74576-0-7

# *MUROBBY* AS A TEACHING VALUES : CONCEPT AND IMPLEMENTATION

**Isti'anah Abubakar, M.Ag**

Abstract

The teacher is the main figure of education and strategic implications for the quality of education. Indonesia's commitment to the quality of the teachers have been very varied but unfortunately is not significant with the expected results. Ranging from improved academic qualifications of teachers up to increase teachers' welfare as stipulated in the Law on teachers and lecturers number 14 in 2005. But there is still no data to suggest that educators we are still less feasible to perform his profession as a teacher. That is, something is not right, especially from the philosophical aspect also requires a process improvement. One of them is the vision of the teacher profession. Teachers as profesion require internalization of moral values to strengthen it, one murobby. This paper contains a study of murobby as one vision of teachers to be internalized at every educators reinforced with field studies in Islamic educational institutions in East Java.

*Keywords: Murobby, Cultural Learning, teaching quality*

## Introduction

Data UNESCO stated that Indonesia's position towards the learning society occupied the bottom among countries world-state.[1] This shows that the educational institutions have not played a strategic role optimally. Research Vilmante (2008) [2]stated that approximately 67.57% of schools do not position ourselves as a learning organization. This also shows their HR data-as a key actor of his teachers - which is not much different. The quality of teachers is based on three background: [3](a) formal education, (b) its use in carrying out the duties and performance, (c) self-development because experience and training are still far from expectations. Based on these parameters, then the teacher education qualification mismatches in the 2000s at the ground level (SD) of 46.1% and amounted to 85.45% junior level.[4] The level of mastery of pedagogical and teacher materials are still vulnerable, still proved their teachers must follow the post PLPG remedial exam. In LPTK UIN Malang, for example, participants PLPG in 2013 should follow the remedial exam approximately 35% of the participants PLPG.[5] While the data in the 1995/1996 Tilaar[6] noted that 54% of primary school teachers are not qualified to teach, Research and the Ministry of Education in 2006 in Mohammad Ali [7]stated that the percentage of teachers who are not worthy of teaching is still quite high, especially at primary school level is around 1,140,836 (84.70%) both in public and private schools. These data, indicating the absence of significant changes related to the quality of teachers when the government seeks to minimize the maximum.[8] In addition, the lack of writing teachers, the results of research as part of its best practices are still hard to find. This is in accordance with the level of teacher ranks as

[1] UNESCO, Facsheet 04: What do societies invest in education ? Public versus private spending Montreal UNESCO Institute for Statistic, 2007

[2] Vilmante, Human resourcers in Learning Organizations, Journal of Business Economic and management, ISSN 1611-1699 print. *www.jbem.lt*

[3] Mohammad Ali, *Pendidikan untuk Pembangunan Nasional menuju bangsa Indonesia yang mandiri dan berdaya Saing Tinggi*, Grasindo, Jakarta, 2009 , h. 359

[4] Data yang dikutip Darmaningtyas, *Ilusi tentang Guru dan Profesionalisme, U*niversitas Sanata Darma, Yogyakarta, 2008, hlm. 200

[5] Exam Content remedial accordance with an agreement in KSG (Consortium for Teacher Certification) with percentages of 60 and 40 pedagogic material, according to the interview with Ricardo, data processing staff LPTK UIN Malang dated December 10, 2013

[6] Tilaar, *Agenda Reformasi pendidikan Nasional*, PT. Intermasa, Jakarta, 2000 h. 286

[7] Mohammad Ali, *Pendidikan untuk Pembangunan Nasional menuju bangsa Indonesia yang mandiri dan berdaya Saing Tinggi*, Grasindo, Jakarta, 2009, h. 256

[8] The improvement of welfare, scholarships, further study and quality improvement programs for other teachers


ISBN: 978-602-74576-0-7

explained Agus Sartono[9], that 2.6 million teachers (0.07%) are still in class IV c and 0.02% is in group IV.

This condition is reinforced by the lack of teachers' ability to portray himself as someone who deserves "digugu and ditiru". Zakiah daradjat [10]- for example - indicated that it may be the real teacher was not happy teaching but simply to make a living, even though the teacher is a moral profession. This discourse intensified when Malik Fajar [11]in Tim Lecturer Faculty of MT catapult statement "if teachers are still rare, if faculty lot". As Parker (2007)[12] states that:

> "Academic culture to build a barrier between co-workers is much higher or wider than the barrier between teacher and student. The barrier stems partly from a sense of competition, in part stems from the fact that teaching is regarded as a public profession of the most personal. "

This condition of course should be followed up, given the teacher is in the forefront in realizing students both academically qualified, skills, emotional maturity, moral and spiritual. [13]Teachers as well as parents second,[14] able to be a role model or example of society.[15] This position should always be reinforced by strengthening the commitment of teachers as teachers. Many studies have been discussing this subject, aims recalled "intent" or value a person to be a teacher and how should the teacher profile. Johannes example, states that teachers should have 8 ethic teacher. Eighth ethos of teacher training is a barometer of whether someone is trustworthy in carrying out his profession as a teacher. Conference 2014 held Icied Malaysia-Indonesia Muslim Students in Kelantan also menbincangkan that teachers should profile is qowiyul amine, a figure that is inspired in the QS. Al-Qasas (28): 26.

The same conversation has also been launched by Peter Drost with "his ongoing formation, Andreas Harefa with human learners. All the above figures are very committed to the quality of education in Indonesia as a developing country which stems from the figure of the ideal teacher and character. A stronger attention to the person and character of the ideal teacher also has long been a concern of the leaders of Islamic education both classical and modern. However, all of these discussions can be pursed at the Islamic Educational definition used is *tarbiyah - ta'lim - ta'dib*.

This paper is intended to remind the core values that have been rolled Al Qur is also a great concern of the leaders of Islamic Education. This study is to explore in balance between theoretical and then confirmed by field research as a implementation. The aim is to convince all parties that the core values that difamiliarkan both sources of Islam - the Qur'an and Hadits- not something impossible to diactionkan, but even Betu-true indeed be a solution at any time as it has been promised by God in QS. Al Isra (17): 82

**Discussion**

Understanding murobbi as Teaching Values term murobbi tune with Rabbani word derived from the word - which means extra ربـ ى يـ ربـ و. Murobby itself is a person who knowingly and deliberately lead a person to be able to live their lives. It is as said Abdul Hamid Al Hashim as follows:[16]

المربى هو الإنسان الذى يقوم من عمد و قصد برعاية فرد او افراد لينمو بين يديه فى حياة ناجحة

Based on such understanding, then the keyword murabbi least for a teacher is to be a commitment (intentions) which can be understood from the word وعمد ق صد which is then confirmed by رعاي ة words that have meaning continuity, continuous. This indicates that teachers are required to continuously up-date or continues improvment which is also listed as one of the items in the principles of

[9] Kementerian Pendidikan nasional *Majalah Diknas*, No. 01 Tahun 2012 h. 27

[10] Zakiah daradjat, *Kepribadian Guru*, Bulan Bintang, Jakarta, 1978, h. 12

[11] Tim Dosen Fakultas Tarbiyah, Pengembangan Profesionalisme Guru PAI, dalam *Modul Materi PLPG Edisi Revisi*, UIN Malang Press, Malang, 2010, h. 1,

[12] Parker, hlm. 209

[13] Kunandar, *Guru Profesional*, Jakarta Raja Grafindo Persada, 2007, hl. 40

[14] Ahmad Muhamamd Jamal, *Nahwa Tarbiya Islamiyah* ,Beirut, Dar Ihya Ulum, 1987, hl. 89

[15] Abdurahman An nahlawy, *usul tarbiyah Al islamiyah wa Asalibuha fi al Bait wa al Madrasah wa al mujtama*,, daamsko, dar Fikr 1996, 254

[16] Abdul Hamid Al Hasyim, *Al Rasul Al 'Araby al Muroby*, dar Al Tsaqafah, Suria, 2006, hlm. 53


ISBN: 978-602-74576-0-7

professionalism of teachers.[17] As stated Muhaimin[18] is murobby it is sincere in working for work, seeking the pleasure of Allah, dignity and honor, become role models for their students, to apply their knowledge in the form of deeds, patient in teaching science to students and do not want to underestimate the other subjects. Here urgency murobby as a value that must be held by educators as a strategic figure in the world of education. Educators actual educators who are committed to the formation of students' character is not only focused on intellectual learners. Historically, this has been exemplified by the Prophet Muhammad that his treatise is character building. This aspect requires commitment and high awareness for educators.

Muhaimin also stated that one of the profiles teachers today must have the spirit of jihad in their profession as a teacher and / or have a mature personality and evolve.[19] This statement further confirms the personal religious teachers have discussed Islamic scholars and educational leaders following:[20]

**Table. 1**
**Personal-Religius Guru**

| **Al Ghazali** | **An Nahlawi** | **Barky Al Qurasy** | **Al Abrasyi** | **Ibn Taimiyah versi Majid Irsan** |
|---|---|---|---|---|
| Compassion towards learners and treat it accordingly | The purpose of behavior and thought patterns are Rabbani | Teaching that seek the pleasure of Allah | Be ascetic, only to seek the pleasure of Allah | Help each other in goodness |
| Personal imitation of the Prophet Muhammad | be sincere | Willing to apply their knowledge | Clean and holy himself from a great sin, riya ', envy, hostility or other reprehensible nature | Being able to be a role model for learners |
| be Objective | be patient | being trustworthy | Ikhlas in the works | |
| Be flexible and wise in dealing with learners | be honest | Be gentle and affectionate | forgiving | |
| Willing to apply their knowledge | Be fair | | Dignity and honor | |
| | | | Loved the learners as their own | |

In the table above shows clearly that teachers needed Islamic educational institutions today are teachers murobby. It is also implied in Sura Al Imran insists that teachers always expected to be learners as shown below:

[17] In accordance with UUSPN 20 of 2003, there professionalism Principle 9 (a) have the talent, enthusiasm, spirit and idealism call, (b) a commitment to improve the quality of education, faith and devotion and noble character (c) have the academic qualifications and educational background according to functional areas, (d) have the necessary competence in accordance with its duties, (e) has the responsibility for the implementation of the tasks professionalism, (f) derives income determined in accordance with work performance, (g) have the opportunity to develop professionalism on an ongoing basis with lifelong learning, (h) have legal protection in carrying out the task of professionalism and (i) have professional organizations that have the authority to regulate matters relating to the duties of teachers keprofesionaln

[18] Muhaimin, *Paradigma Pendidikan Islam Upaya Mengefektifkan PAI di Sekolah*, Remaja Rosdakarya, Bandung, 2001, hlm. 115

[19] Muhaimin, *Paradigma Pendidikan Agama Islam, Upaya Mengefektifkan pendidikan Agama Islam di Sekolah*, Remaja Rosdakarya , Bandung, hlm. 101

[20] Lihat lebih lanjut Muhaimin, *Ibid*, hlm. 97-98


ISBN: 978-602-74576-0-7

مَا كَانَ لِبَشَرٍ أَن يُؤْتِيَهُ ٱللَّهُ ٱلْكِتَٰبَ وَٱلْحُكْمَ وَٱلنُّبُوَّةَ ثُمَّ يَقُولَ لِلنَّاسِ كُونُواْ عِبَادًا لِّي مِن دُونِ ٱللَّهِ وَلَٰكِن كُونُواْ رَبَّٰنِيِّۧنَ بِمَا كُنتُمْ تُعَلِّمُونَ ٱلْكِتَٰبَ وَبِمَا كُنتُمْ تَدْرُسُونَ

Meaning: There is natural for a human being that God gave him the Book and Wisdom and Prophethood, and then he said to the man: "Be ye be worshipers penyembahku not worshipers of God". But (he said): "You shall be those Rabbani, because you always teach you the Book and because you have studied. (QS. Al Imran (3): 79)

Based on the above verse there are two keywords that describe how it's supposed to be a teacher, that the words "always" and "fixed", always develop competencies themselves and still make worship a steady intention which was engraved inside an educator.

***Teachers as Murobby: A concrete example***

SD Al Hikmah Surabaya and Gresik YIMI SMP is Islamic educational institutions are aware of the character of the teacher as the most important factor of the quality of education. Teachers in the view of both of these institutions are murobby figure, willing to learn and serve their students and be an artist for their students. Fourth it makes teachers in both institutions accustomed to position yourself as someone who is truly a role model, both for fellow teachers and especially the students. Habituation is of course a top down, where the foundations or terlenih school will first be committed teacher profile. Basically every educator has to have a basic character, depending on the institution or school or do not have the will to grow and direct the basic character of teachers who will join it.
For that there are several strategic steps to implement murobby characters that have been carried both educational institutions. The strategic steps as follows :

a. Making the recruitment process as a neutral process and stages, where both the institution is positioning itself as an institution that choose not selected
b. Creating a healthy organizational climate and comfortable berdasrkan togetherness and mutual trust among its members
c. Providing collegial communication channels, without any limitation of bureaucracy
d. makes the next day as a teacher, where teachers are given the opportunity and the confidence to express and explore his abilities

Fourth strategic step above into a foothold in growing murobby character, a character that requires circumstances that comforting each other. Then any educational institution should be able to create a healthy organizational climate that character murobby internalized within each of its members.

***Culture Learning as a Basis Value Murobby***

Fourth strategic measures undertaken in both the educational institutions on a implemnetasi of a learning culture. Cultural learning itself is understood as a commitment to update themselves through the process of sharing capabilities. Vividly illustrated the characteristics of a learning culture as follows:

a. Having a resourceful humans are members of organizations that have integrated human potential (intellectual, social and ethical)
b. Having a conducive habitat characterized by the relationship between five learning discipline Senge
c. Having facilitators motivator of learning which includes structural (information technology, reward systems, and organizational structure) and a catalyst relational (trust, transformational culture, and leadership)

The research data Carie (2003) showed that the adaptability of teachers that is individualized for initial capital the power of learning [21]still dominates in the educational process, where teachers individually take action to changes and problems learning faced,[22] meaning less done sharing process so that reinforcement or response received related to what has been done can not be obtained maximally.

While the process of teacher learning together proven to improve the quality of teachers able to give rise to meaningful learning. This is because teachers coordinate, communicate and establish familiarity with one another related to the role and responsibilities as a teacher. To do all of these activities will require mutual trust and a strong togetherness that can be created by the school. This has implications for the confidence of teachers, where teachers present the material that has been

[21] Adaptation can mean multiple, first, man's attempt to adjust your life to its environment, the second, the human effort that can disesuaikna area faced with the desire and purpose. Tim UPI, volume 1, p. 265 in Bennet (1976

[22] Carie Rothstein, *Bridging Cultures Teaching Education Module*, Lawrence Elbaumn, New Jersey, 2003


ISBN: 978-602-74576-0-7

discussed and are confident that what is presented is in accordance with a common understanding.

**Conclusion**

The strategic position of teachers should always be directed to achieve the degree of murobby that teachers who are committed to make the teaching profession propaganda as an integral part of the preaching is reinforced by their willingness to continue to learn to be able to become an artist for their students, a figure that inspire and be the center of attention for its students.

**References**

Ali, Mohammad, *Pendidikan untuk Pembangunan Nasional menuju bangsa Indonesia yang mandiri dan berdaya Saing Tinggi*, Grasindo, Jakarta, 2009

An nahlawy, *usul tarbiyah Al islamiyah wa Asalibuha fi al Bait wa al Madrasah wa al mujtama*,, daamsko, dar Fikr 1996

Darmaningtyas, *Ilusi tentang Guru dan Profesionalisme, U*niversitas Sanata Darma, Yogyakarta, 2008

Daradjat, Zakiah, *Kepribadian Guru*, Bulan Bintang, Jakarta, 1978

Kunandar, *Guru Profesional*, Jakarta Raja Grafindo Persada, 2007

Hamid Al Hasyim, Abdul, *Al Rasul Al 'Araby al Muroby*, dar Al Tsaqafah, Suria, 2006

Muhamamd Jamal, Ahmad, *Nahwa Tarbiya Islamiyah* ,Beirut, Dar Ihya Ulum, 1987

Muhaimin, *Paradigma Pendidikan Islam Upaya Mengefektifkan PAI di Sekolah*, Remaja Rosdakarya, Bandung, 2001

Rothstein, Carie, *Bridging Cultures Teaching Education Module*, Lawrence Elbaumn, New Jersey, 2003

Tilaar, *Agenda Reformasi pendidikan Nasional*, PT. Intermasa, Jakarta, 2000

Tim Dosen Fakultas Tarbiyah, Pengembangan Profesionalisme Guru PAI, dalam *Modul Materi PLPG Edisi Revisi*, UIN Malang Press, Malang, 2010

UNESCO, Facsheet 04: What do societies invest in education ? Public versus private spending Montreal UNESCO Institute for Statistic, 2007

Vilmante, Human resourcers in Learning Organizations, Journal of Business Economic and management, ISSN 1611-1699 print. *www.jbem.lt*

*Majalah Diknas*, No. 01 Tahun 2012.


ISBN: 978-602-74576-0-7

# INVESTIGATING ENGLISH TEACHERS' ROLES AND PRACTICES IN SMPN 26 MALANG: THE ISSUE OF TEACHER'S TEACHING ACT.

**RAISHA NUR ANGGRAINI**
*Graduate Program in ELT, Universitas Negeri Malang, Jl. Semarang No. 5 Malang, 65145, Indonesia*

**ARDHI EKA FADILAH**
*Graduate Program in ELT, Universitas Negeri Malang, Jl. Semarang No. 5 Malang, 65145, Indonesia*

**Abstract**

**Teacher as one of four key elements in teaching-learning process plays an important role in determining students learning outcome. They also play an unmistakable and unparalleled role in the success of any educational enterprise. Whether they see themselves as passive technicians, reflective practitioners, transformative intellectuals, or as a combination, they are all the time involved in a critical mind engagement. Their success and the satisfaction they derive from it depends to a large extent on the quality of their mind engagement. This paper would like to investigate teacher's role and practice in SMPN 26 Malang. Five English teachers participated in this investigation and they are given questionnaire as the instrument to collect the data. The questionnaire given consists of three main information which are teacher's background information, teacher's teaching practice, belief, and attitude, and the last is about teacher development. The results are elaborated descriptively and it comes to a conclusion that the participating teachers in this investigation are considered as passive technicians. Some suggestions are provided for the teachers to improve their teaching role as well as their teaching practices to make it more effective.**

## Introduction

Teachers play an unmistakable and unparalleled role in the success of any educational enterprise. As one of four key elements in teaching-learning process, they also plays an important role in determining students learning outcome. Teacher brings certain characteristics as individual or as a group to their teaching such as their formative experiences, their trainings, and their personal qualities (Dunkin and Biddle, 1974:38) to help the students acquire the knowledge of the subject taught. Especially for English language teachers, it is a compulsory for them to make the students mastering the target language. This is a challenge for the teachers because they do not only teach the students how to communicate by giving them enough exposures to the target language, but they themselves need to maintain and increase their knowledge of foreign language by engaging in foreign language communication (Borg, 2006: 5). By looking at this fact, therefore, the teachers are encouraged to make their teaching of language successful so that the students are able to achieve better in class.

Teacher's role is various and it may change from one activity to another or from one stage of activity to another (Harmer, 2001). In the domain of English Language Teaching (ELT), some experts have suggested different potential roles for a language teacher (Littlewood, 1981; Appel, 1995; Richards & Lockhart, 1996; Harmer, 2001; Brown, 2007; Kumaravadivelu, 2003). Littlewood (1981) looks at the language teacher's role in the classroom as a facilitator and broadens this role and entails some sub-roles with it. These sub-roles are overseer of students' learning, classroom manager, consultant or advisor of students and sometimes co-communicator. At the different side, Harmer (2001) broadens the term 'facilitator' than Littlewood does as all teacher's roles are meant to facilitate the progress of the learner in some way or another. He adds that the teacher has the roles of controller, organizer, assessor, participant, resource, tutor, and observer.

According to Appel (1995), there are two essentially major roles of teachers in the classroom. First is to create the conditions under which learning can take place, which is included as the social side of teaching. Second is to impart, by a variety of


ISBN: 978-602-74576-0-7

means, knowledge to their learners and this, which is included as the task-oriented side of teaching. The first role is known as the 'enabling' or managerial function, the search for the proper conditions and means for teaching, and the second role is the instructional function with the teacher as the so-called "instructor". These two roles of the teachers complement each other; the latter would be more or less impossible without the former. In practice, it is very difficult to separate the two and often one act in the classroom can perform both functions simultaneously.

Richards and Lockhart (1996) suggested five dimensions of teacher's role based on the nature of schools and teaching, teachers' interpretations of their roles in different ways depending on the kinds of schools in which they work, the teaching methods they employ, their individual personalities, and their cultural backgrounds. Meanwhile, Brown (2007) mentioned some roles for the interactive teacher. These roles are: controller, director, manager, facilitator, and resource.

Kumaravadivelu (2003) mentioned three roles of the teachers viewed from the historical role and function of classroom teachers to understand how the concept of teacher role has developed over the years, and how that development has shaped the nature and scope of institutionalized education. Those three roles are (a) teachers as passive technicians, (b) teachers as reflective practitioners, and (c) teachers as transformative intellectuals. In this technicist or transmission approach, the teacher's primary role in the classroom is to function like a conduit, channeling the flow of information from one end of the educational spectrum (i.e., the expert) to the other (i.e., the learner) without significantly altering the content of information. The primary goal of such an activity, of course, is to promote student comprehension of content knowledge. On the other hand, reflective teachers constantly attempt to maximize their learning potential and that of their learners through classroom-oriented action research and problem-solving activities. Meanwhile as transformative intellectuals, teachers are engaged in a dual task: they strive not only for educational advancement but also for personal transformation. Transformative teachers are required to view pedagogy not merely as a mechanism for maximizing learning opportunities in the classroom but also as a means for transforming life in and outside the classroom. Table 1.1 will provides a summary of the roles of the teachers suggested by Kumaravadivelu.

Table 1.1. The roles of the teacher (Kumaravadivelu, 2003)

| | Teachers as passive technicians | Teachers as reflective practitioners | Teachers as transformative intellectuals |
|---|---|---|---|
| Primary role of teacher | Conduit | Facilitator | Change agent |
| Primary source of knowledge | Professional knowledge + empirical research by experts | Professional knowledge + teacher's personal knowledge + guided action research by teachers. | Professional knowledge + teacher's personal knowledge + self-exploratory research by teachers. |
| Primary goal of teaching | Maximizing content knowledge through prescribed activities. | All above + maximizing learning potential through problem-solving activities. | All above + maximizing sociopolitical awareness through problem-posing activities. |
| Primary orientation to teaching | Discrete approach, anchored in the discipline. | Integrated approach, anchored in the classroom. | Holistic approach, anchored in the society. |
| Primary players in the teaching process (in rank order) | Experts + teachers | Teachers + experts + learners | Teachers + experts + learners + community activists |

Teachers must be clear about their role in the classroom so that there is no chasm between their perceptions of their role and what they actually practice in the classroom (Choudhury, 2011:34). This seems that teacher's role reflects their personal view of teaching and they must be aware of the ways in which they act with regards to their views. Teachers create their own roles within the classroom based on their own theories of teaching and learning and the kind of classroom interaction they believe best supports these theories. As stated by William


ISBN: 978-602-74576-0-7

and Burden (1997: 5) that a successful teacher is the teacher who understand the complexities of teaching-learning process and is able to draw upon this knowledge into the teaching act. It implies that the ideal-self of a teacher is determined by how the teacher formulates his/her theory of teaching and applies it into practice. This concept is similar to the characteristics of effective teacher in which it involves understanding what being a good teacher really means and incorporating classroom practices that are appropriate for the wider social context (Çelik et al., 2013; Dincer, et al., 2013; Drakulić, 2013). In the context of foreign language, classroom teachers are often the only speakers with whom students have the opportunity to interact in the process of developing their language skills; thus, the effectiveness of foreign language teachers is seen as especially critical.

Teachers' personal theories or beliefs and also their teaching practices in the classroom are two aspects to be highlighted in the characteristics of effective teacher. It is because language teachers' beliefs and understandings of teaching, as well as learning, play an important role in their classroom practices and in their professional growth. The relationship between teachers' beliefs and their classroom practices has been one thread of the work. This issue brings several researchers to conduct different studies with the aim of understanding the correspondence between teachers' stated beliefs with what they do in the classroom. For example, Yoshihara (2012) who studied three EFL teachers in Hawaii found that each teacher had different teaching practices even though they had similar teaching beliefs. The teachers tried to apply their teaching beliefs to teaching practices although teaching beliefs are not always applied to classroom practices because of contextual factors. In the same vein, Vibulphol (2004) and Melketo (2012) revealed that it was apparent that teachers' beliefs about teaching process and appropriate strategies for enhancing and supporting the development of students' skill were constant. Yet some mismatches were also found because of contextual factors such as class time, students' expectation, and classroom management. Furthermore, other studies support the notion that teachers do possess theoretical beliefs and that such beliefs tend to shape the nature of their instructional practices (Johnson, 1992; Uztosun, 2011; Kuzborska, 2011).

The present descriptive study addresses the need to investigate teachers' roles and practices regarding their teaching of English and how these roles and practices are seen from their belief, attitude, and professional development, in the context of English teachers in SMPN 26 Malang. This need stemmed from the fact that English teachers are required to develop students' academic achievement, enabling the students to effectively and efficiently communicate in academic and professional contexts both in written and spoken. Thus, by examining the picture and the link between of teacher's roles and practices from their belief, attitude, and professional development, this study is expected to give theoretical contribution to the literature of teacher's roles and practices in language teaching. Besides, the results of the study are expected to give practical contribution as well for the teachers, especially in SMPN 26 Malang, to see and evaluate their performances in teaching English so that they can become better professionals and increase student achievement in core subject areas.

## Method

In this study, the researchers intended to investigate teachers' roles and practices in teaching English. To achieve this aim, descriptive study was employed. This is a descriptive study for the purpose of making descriptive assertion about particular subject. This study was conducted in SMPN 26 Malang. Quantitative data were collected in this study and it was collected through two questionnaires. The first questionnaire aimed at investigating teachers' practices, beliefs, and attitudes toward English teaching, and the second questionnaire is an open-ended questionnaire which was used to investigate teachers' development.

### a. Participants

The participants of the study were five English teachers of SMPN 26 Malang. This school was chosen as the setting of the study because of the accessibility since one of the researcher was the teacher of this school. In relation to teachers' roles and practices, the participating teachers has different range of teaching experience from 4 years teaching experiences as the shortest time and 32 years teaching experiences as the longest time. These teachers must have various experiences, trainings, and personal qualities that they bring to the classroom to help the students acquire the knowledge of the subject taught.


ISBN: 978-602-74576-0-7

**b. Instrument**

Two kinds of questionnaire were used in this study. First is Teaching and Learning International Survey (TALIS) questionnaire which was used to explore teachers' teaching practices, beliefs, and attitudes toward English teaching. The original TALIS questionnaire had included four information about school education and policy matters: professional development, teacher appraisal and feedback, teaching practices, beliefs, and attitudes, and teachers' teaching in a particular at the school. The adaptation of TALIS questionnaire focused on teaching practices, beliefs, and attitudes only for the purpose of this study. For teachers' practices part, there are 12 items and the participants were asked to rate the degree of frequency for each items on a six-point scale (*1= Never, 2= Less than once per year, 3= Once per year, 4= 3-4 times per year, 5= Monthly, 6= Weekly*). The second part on teachers' beliefs consists of twelve Likert-type items and the scale ranges from 1 for *Strongly disagree* and 4 for *Strongly agree.* The last part on teachers' attitudes consists of ten Likert-type items about teachers' attitude as teacher in the school and what happens in the school, and it also uses four-point scale ranges from 1 for *Strongly disagree* and 4 for *Strongly agree.*

The second questionnaire, which was adopted from Richards et al. (2001), was also administered to see teacher's development through the time of their teaching experiences. This questionnaire consists of three open-ended items which ask about teachers' most important beliefs about language teaching and learning, teachers' changes in approach to language teaching, and the source of their changes.

**c. Data Analysis and Interpretation**

To analyze the quantitative data, the researchers first used descriptive statistics, focusing on the mean and standard deviation. The mean score obtained from the questionnaire items will indicate different result depending on the result of the examination such as teachers' practice, beliefs, and attitudes toward English teaching. Mean scores also indicate what teaching practices and teaching attitudes the teachers favored the most and the least, in the sense that, the highest mean score indicates the most agreed statement of teaching practices and attitude, and the lowest mean score indicates the least agreed. The Statistical Package for the Social Science (SPSS) for Microsoft Windows 16.0 was used as well to complete the analysis of the collected data. Meanwhile, the result of the open-ended questionnaire was analyzed qualitatively.

**Findings and Discussions**

The questionnaire given to five English teachers in SMPN 26 Malang consists of three main information which are teacher's background information, teacher's teaching practice, belief, and attitude, and the last is about teacher development. These three points will be elaborated based on the data information obtained from the teachers.

The first point from the first questionnaire is about teacher's background information. The teachers who involved in our investigation are all secondary school teacher which consists of three female teachers and two male teachers. Their highest education qualifications are bachelor's degree with 4 years teaching experiences as the shortest time and 32 years teaching experiences as the longest time.

The next point is about teachers' teaching practices, beliefs, and attitudes. In this point, there are three numbers which contains statements related to practice, belief, and attitudes. Number one provides the statements about teacher's personal belief on teaching and learning and the participating teachers should give their opinion how much they agree or disagree toward the statements. The result of teachers' opinions for number one are listed into the rank-order in the Table 3.1.

From Table 3.1 we may see that three highest agreement toward the statements about teachers' personal beliefs are *'how much students learn depends on how much background knowledge they have – that's why teaching facts is so necessary'* (80%), *'effective/good teachers demonstrate the correct way to solve a problem'* (40%), and *'my role as a teacher is to facilitate students' own inquiry'* (20%). Moreover, the participating teachers also showed disagreement toward the beliefs that *'a quiet classroom is generally needed for effective learning'* (80%), *'thinking and reasoning processes are more important than specific curriculum content'* (40%), and *'teachers know a lot more than students; they shouldn't let the students develop answers that may be incorrect when they can just explain the answers directly'* (20%).

For number two, a list of activities are provided, whether the teachers have or have not done the activities based on the frequency. This part is related to teachers' teaching practices. The listed activities indicates teacher's involvement in educational


ISBN: 978-602-74576-0-7

Table 3.1 Teacher's personal belief on teaching and learning.

| No. | Items | SD | D | A | SA | Mean | Std. Deviation |
|---|---|---|---|---|---|---|---|
| | | % | % | % | % | | |
| 8. | How much students learn depends on how much background knowledge they have – that's why teaching facts is so necessary. | 0 | 0 | 20 | 80 | 3.8 | .447 |
| 1. | Effective/good teachers demonstrate the correct way to solve a problem. | 0 | 0 | 60 | 40 | 3.2 | .447 |
| 4. | My role as a teacher is to facilitate students' own inquiry. | 0 | 0 | 80 | 20 | 3.2 | .447 |
| 9. | Students should be allowed to think of solutions to practical problems themselves before the teacher shows them how they are solved. | 0 | 0 | 100 | 0 | 3.0 | .000 |
| 6. | Students learn best by finding solutions to problems on their own. | 0 | 40 | 60 | 0 | 2.6 | .547 |
| 7. | Instruction should be built around problems with clear, correct answers, and around ideas that most students can grasp quickly. | 0 | 40 | 60 | 0 | 2.6 | .547 |
| 10. | When referring to a "good performance", I mean a performance that lies above the previous achievement level of students. | 0 | 40 | 60 | 0 | 2.6 | .547 |
| 2. | When referring to a "poor performance", I mean a performance that lies below the previous achievement level of the students. | 0 | 60 | 40 | 0 | 2.2 | .447 |
| 3. | It is better when the teacher – not the students – decides what activities are to be done. | 0 | 80 | 20 | 0 | 2.2 | .447 |
| 5. | Teachers know a lot more than students; they shouldn't let the students develop answers that may be incorrect when they can just explain the answers directly. | 20 | 80 | 0 | 0 | 1.8 | .447 |
| 12. | Thinking and reasoning processes are more important than specific curriculum content | 40 | 60 | 0 | 0 | 1.6 | .547 |
| 11. | A quiet classroom is generally needed for effective learning. | 80 | 20 | 0 | 0 | 1.2 | .447 |

development, teacher's personal reflection in teaching, and teacher's development which is done personally or collaboratively with their peer teachers. The result from data information in the questionnaire will be ranked from the most frequent to the less frequent activities which are done by the teachers. It is shown in the Table 3.2.

The results in Table 3.2 shows that the teachers frequently *'exchange teaching materials with colleagues'* (80%) and *'engage in discussion about the learning development of specific students*' (60%). These are two activities which were done weekly by the participating teachers. However, there are also several activities that never been done by the teachers such as *'discuss and coordinate homework practice across subjects'* (100%), *'take part in professional learning activities (e.g. team supervision)'* (80%), and *'engage in joint activities across different classes and age groups (e.g. projects)'* (60%).

For number three, it contains 6 statements related to what the teachers think about themselves as a teacher in the school and 4 other statements related to what happen in their school environment. The teachers again gave their opinion of how much they agree or disagree toward the statements. The result in Table 3.3 is the information given by the teachers according to the questionnaire.

As the Table 3.3 illustrates, 60% teachers agree toward the statement of opinion about themselves as a teacher that they feel they are making a significant


ISBN: 978-602-74576-0-7

Table 3.2 The frequency of activities done by the teachers.

| No. | Items | Never | Less than once per year | Once per year | 3-4 time per year | Monthly | Weekly | Mean | Std. Deviation |
|---|---|---|---|---|---|---|---|---|---|
| | | % | % | % | % | % | % | | |
| 4. | Exchange teaching materials with colleagues. | 0 | 0 | 0 | 0 | 20 | 80 | 5.8 | .447 |
| 7. | Engage in discussion about the learning development of specific students. | 0 | 0 | 0 | 0 | 40 | 60 | 5.6 | .547 |
| 3. | Discuss and decide on the selection of instructional media (e.g. textbooks, exercise books). | 0 | 0 | 0 | 60 | 40 | 0 | 4.4 | .547 |
| 1. | Attend staff meetings to discuss the vision and mission of the school. | 0 | 0 | 60 | 40 | 0 | 0 | 3.4 | .547 |
| 5. | Attend team conferences for the age group I teach. | 0 | 20 | 80 | 0 | 0 | 0 | 2.8 | .447 |
| 2. | Develop a school curriculum or part of it. | 0 | 40 | 60 | 0 | 0 | 0 | 2.6 | .547 |
| 10. | Observe other teachers' classes and provide feedback. | 0 | 60 | 40 | 0 | 0 | 0 | 2.4 | .547 |
| 6. | Ensure common standards in evaluations for assessing student progress. | 20 | 80 | 0 | 0 | 0 | 0 | 1.8 | .447 |
| 8. | Teach jointly as a team in the same class. | 20 | 80 | 0 | 0 | 0 | 0 | 1.8 | .447 |
| 11. | Engage in joint activities across different classes and age groups (e.g. projects). | 60 | 40 | 0 | 0 | 0 | 0 | 1.4 | .547 |
| 9. | Take part in professional learning activities (e.g. team supervision). | 80 | 20 | 0 | 0 | 0 | 0 | 1.2 | .447 |
| 12. | Discuss and coordinate homework practice across subjects. | 100 | 0 | 0 | 0 | 0 | 0 | 1.0 | .000 |

educational differences in the lives of their students, 40% shows strong agreement that they are satisfied with their job as a teacher, and 20% shows strong agreement that the teachers in that local community are well respected. Meanwhile for the statement of opinions about what happen in the school, all teachers strongly agree that teachers and students in that school usually get on well with each other, as it shows 100% strong agreement, and 80% teachers strongly agree that students' well-being in the school is important.

The second questionnaire seeks for the information on teacher development. It consists of three number which asked about teacher personal belief in language teaching and learning that guide them in their day-to-day teaching, teachers' changes over their teaching practice, and the sources of their changes. For this point, the teachers are not provided with some statements, rather they have to provide their own written responses to those three aspects mentioned before. Until the questionnaire reach this point, the information given by the teacher show very interesting results.

The first aspect is about teacher personal belief in language teaching and learning that guide them in their day-to-day teaching. This written information given by the teacher is very important because it may show how teacher conceptualize their work and how teachers approach their work. According to Hampton (1994), teacher's personal belief or 'personal construct' determine how they approach their teaching. It also strongly affects the materials and activities they choose for the classroom. Looking at the information given by the teachers in


ISBN: 978-602-74576-0-7

Table 3.3 Teacher's opinion about themselves and what happen in the school environment.

| No. | Items | SD | D | A | SA | Mean | Std. Deviation |
|---|---|---|---|---|---|---|---|
| | | % | % | % | % | | |
| Opinion about teachers themselves as teacher | | | | | | | |
| 2. | I feel that I am making a significant educational difference in the lives of my students. | 0 | 0 | 40 | 60 | 3.6 | .547 |
| 1. | All in all, I am satisfied with my job. | 0 | 0 | 60 | 40 | 3.4 | .547 |
| 6. | Teachers in this local community are well respected. | 0 | 0 | 80 | 20 | 3.2 | .447 |
| 3. | If I try really hard, I can make progress with even the most difficult and unmotivated students. | 0 | 0 | 100 | 0 | 3.0 | .000 |
| 4. | I am successful with the students in my class. | 0 | 0 | 100 | 0 | 3.0 | .000 |
| 5. | I usually know how to get through to students. | 0 | 20 | 80 | 0 | 2.8 | .447 |
| Opinion about what happens in the school | | | | | | | |
| 1. | In this school, teachers and students usually get on well with each other. | 0 | 0 | 0 | 100 | 4.0 | .000 |
| 2. | Most teacher in this school believe that students' well-being is important. | 0 | 0 | 20 | 80 | 3.8 | .447 |
| 4. | If a students from this school needs extra assistance, the school provides it. | 0 | 0 | 100 | 0 | 3.0 | .000 |
| 3. | Most teachers in this school are interested in what students have to say. | 0 | 60 | 40 | 0 | 2.4 | .547 |

the questionnaire, it is quite surprising that most of the teachers stated their beliefs in which the most important thing in their teaching is students comprehension toward the subject taught. The statements from three teachers below show the evidence:

Teacher 1: *"Students understand and they can follow what I teach to them."*

Teacher 2: *"The understanding meaning of the words are important for the students."*

Teacher 3: "*The students must know the English words and have large vocabularies."*

This is very contradictive to the previous result on the first point where the teachers are provided with some statements. The first point result shows the highest agreement of teacher's belief are mainly on students' critical thinking and ability in solving the problem. It probably happens because the teachers came to their logical thinking toward the statements provided, yet when it comes to their stated personal beliefs, they have their very own and very different beliefs.

The second aspect is about teachers' changes over their teaching practice. Since the first aspect investigated is about teacher's belief, it should therefore help clarify how teachers change their approaches to teaching and learning over time. In order to identify how teachers' approaches to teaching change overtime, the participating teachers were asked to provide comparative evidences of how they teach then with how they teach now. The result shows that the majority of the teachers reported their change from teacher-centered to student-centered. One doubt toward this result is emerged. Perhaps some of these responses were triggered by the sample response rather than true reflection on real changes. Grammar teaching was another area of definite change of the teacher. Some teacher also stated that they have shifted from a structural to a communicative approach by emphasizing more use of teaching strategies and also interactive teaching style.

The third aspect is about teacher's sources of changes. Here the teachers are provided with some activities which help them with the changes of their teaching practices stated in the second aspect. The result shows that all participating teachers gave similar responses on the sources of their changes. The responses indicate that in-service course, seminars/conferences, and student feedback are the top three sources for the changes the teachers reported. It is not hard to understand how teachers


ISBN: 978-602-74576-0-7

learn and then changed based on student feedback. Since they are with them most of the time, teachers often view their students as their best source of feedback. For the in-service course and seminars/conference, teachers favor these two sources the most probably because the teachers could meet their counterparts in other schools and have a chance to share ideas, find out what else is being done to handle similar materials and how others are overcoming similar problems. As a result, they have the courage to implement some of the new ideas they have learned.

From the whole findings and discussions explained above, it comes to a conclusion that the participating teachers in this investigation are considered as **passive technicians.** As stated by Kumaravadivelu (2003:8), the technicist teacher's primary role in the classroom is to function like a conduit, channeling the flow of information from one end of the educational spectrum (i.e., the expert) to the other (i.e., the learner) without significantly altering the content of information. This is because teacher's primary goal is to promote student comprehension of content knowledge. The evidence can be seen obviously when the teachers are asked to state their own belief in language teaching and learning where the most important thing in their teaching is students comprehension toward the subject taught. Here the teachers are constrained pedagogic assumptions and to seldom seriously question their validity or relevance to specific learning and teaching contexts.

Moreover, the teachers view provides a safe and secure environment for those teachers who may not have the ability, the resources, or the willingness to explore self-initiated, innovative teaching strategies (Kumaravadivelu, 2003:9). This statement is supported by the evidences in point first number two (frequency of activities for development) and in the aspects of sources for the changes of teaching practices. The teachers have least frequency in doing professional learning activities such as team supervision and projects. Also, the teachers mostly rely on in-service course or seminar/conference for their development. This considered inadequate for their development and effectiveness in teaching because it does not show the self-initiated activities which indicate reflective practice.

As the conclusion of this findings and discussions found in SMPN 26 Malang, the teachers need to improve their teaching practice in the classroom to make the language teaching and learning become more effective since they are still considered as passive technicians. This passive technicist is so passive, so unchallenging, so boring that teachers often lose their sense of wonder and excitement about learning to teach (Kincheloe, 1993:24). Therefore, the next section of this paper would like to give some suggestions to be considered for the teacher to improve their teaching role as well as their teaching practice to make it more effective.

**Implications for Teacher Development**

Tigelaar et al. (2006: 278) optimistically remarks that one of the most interesting things about teaching is that teacher never stops learning. This means that teacher development is the process of life-long learning in the teaching profession; it involves any activities aiming to achieve personal and professional growth for teachers. Since teachers' beliefs about successful language teaching and learning form the core of their teaching behavior and changes in behavior often follow changes in beliefs, teachers' development courses which will give the teachers opportunity to reflect on their beliefs and make those beliefs explicit will be more likely to encourage professional development (Bernhardt, 2015:10).

This type of reflection is possible through many means including narratives, discussions, review of students' feedbacks, viewing videotapes of their teaching as well as other modes of reflection. A focus on how change comes about is also a select focus of teacher development activities. Teachers can monitor their own beliefs and practices change trough such activities as journal writing, lesson reports, teaching portfolio, case studies, and other methods for reflective analysis. By doing these, teachers can use their classroom experiences as the basis for critical reflection if teachers can find ways to capture the thoughts of and reactions to these events, as well as ways to gather fuller information about the events themselves (Widiati, 2008:202).

The professional development of teachers are vital. This is because teachers with high professional competency are able to help the students not only to get the excellent result in the academics, but also they can teach students how to learn in the appropriate way to become the holistic students. Therefore, the ministry of education and schools should have clear policy and long term program to maintain and upgrade the professional development of teachers. They should also promote the reflective practice and make the teachers aware that the reflection should come out as the self-initiated


ISBN: 978-602-74576-0-7

activity, not externally driven (Khan and Begum, 2012: 375). If teachers do not feel comfortable to work with others in the reflective practice (through observation) they still have alternatives to practice the reflection using journal writing, lesson reports, and teaching portfolio which can help teachers gather information about their classroom practice which is very important in assessing the teacher performance.

**Conclusion**

This paper would like to investigate teacher's role and practice in SMPN 26 Malang. Five English teachers participated in this investigation and they are given questionnaire as the instrument to collect the data. The questionnaire given to five English teachers consists of three main information which are teacher's background information, teacher's teaching practice, belief, and attitude, and the last is about teacher development. The results are elaborated descriptively and it comes to a conclusion that the participating teachers in this investigation are considered as passive technicians. This is because teacher's primary goal is to promote student comprehension of content knowledge. The evidence can be seen obviously when the teachers are asked to state their own belief in language teaching and learning where the most important thing in their teaching is students comprehension toward the subject taught.

Since passive technicist is so passive, so unchallenging, so boring that teachers often lose their sense of wonder and excitement about learning to teach, some suggestions are provided for the teacher to improve their teaching role as well as their teaching practice to make it more effective. Teachers' development courses which will give the teachers opportunity to reflect on their beliefs and make those beliefs explicit will be more likely to encourage professional development. Therefore, the ministry of education and schools should provide program to maintain and upgrade the professional development of teachers and promote the teacher's reflective practice.

As the suggestions of this study, the researchers did not do classroom observation as a supporting evidence of the linearity between teacher's roles, practices, beliefs and professional development. It is expected that classroom observation will be conducted in the future. Besides, more subjects of the teacher needs to be added too and in depth study toward teacher's roles, practices, beliefs and professional development needs to be done.

**References**


1. Appel, J. 1995. *Diary of a Language Teacher*. Oxford: Heinemann English Language Teaching.
2. Borg, S. (2006). The distinctive characteristics of foreign language teachers. *Language Teaching Research,* 10(1), 3-31.
3. Brown, H. D. 2007. *Teaching by Principles: An Interactive Approach to Language Pedagogy (3rd Edition).* New York: Pearson Education Inc.
4. Çelik, S., Arikan, A., Çaner, M. (2013). In the eyes of Turkish EFL learners: What makes an effective foreign language teacher? *Porta Linguarium*, 20, 287-297.
5. Choudhury, A. S. 2011. Classroom roles of English Language teachers: The traditional and the innovative. *Contemporary Online Language Education Journal*, 1, 33-40.
6. Dincer, A., Göksu, A., Takkac, A., Yazici, M. (2013). Common characteristics of an effective English language teacher. *The International Journal of Educational Researchers*, 4(3), 1-8.
7. Drakulić, M. (2013). Foreign language teacher competences as perceived by English language and literature students. *Journal of Education Culture and Society*, 1, 158-165.
8. Dunkin, M. J., Biddle, B. J. 1974. *The study of teaching.* New York: Holt, Rinehart and Winston.
9. Harmer, J. 2001. *The Practice of English Language Teaching.* London: Longman.
10. Johnson, K. E. (1992). The relationship between teachers' beliefs and practices during literacy instruction for non-native speakers of English. *Journal of Reading Behavior*, 24(1), 83-109.
11. Kumaravadivelu, B. (2003). *Beyond Methods: Macrostrategies for Language Teaching.* New Haven and London: Yale University Press.
12. Kuzborska, I. (2011). Links between teachers' beliefs and practices and research on reading. *Reading in a Foreign Language,* 23(1), 102-128.
13. Littlewood, W. 1981. *Communicative Language Teaching*. New York: Cambridge University Press.
14. Melketo, T. A. (2012). Exploring tensions between English teachers' beliefs and practices



ISBN: 978-602-74576-0-7

in teaching writing. *The International HETL Review*, 2, 98-105.
15. Richards, J. C., Lockhart, C. 1996. *Reflective Teaching in Second Language Classroom.* Cambridge: Cambridge University Press.
16. Richards, J. C., Gallo, P. B., Renandya, W.A. 2001. Exploring teachers' beliefs and the processes of change. *PAC Journal*, 1(1), 41–58.
17. Uztosun, M. S. (2011). A qualitative study into English language teachers' and students' beliefs and practices in Turkey. *The International Journal of Research in Teacher Education*, 2(2), 16-34.
18. Vibulphol, J. (2004). *Beliefs about language learning and teaching approaches of pre-service teachers in Thailand.* Unpublished doctoral dissertation. Oklahoma: Oklahoma State University.
19. William, M., Burden, L. R. (1997). *Psychology for language teachers: a social constructivist approach.* Cambridge: Cambridge University Press.
20. Yoshihara, R. (2012). ESL teachers' teaching beliefs and practices: A case study of three teachers in an ESL program in Hawaii. 総合文化研究第18巻第１号, 41-63


ISBN: 978-602-74576-0-7

# CONTINUOUS PROFESSIONAL DEVELOPMENT OF PRIMARY SCHOOL TEACHERS

**NURKOLIS**
*Educational Management of Post Graduate Program, University of PGRI Semarang*
*Jl. Lingga Raya No. 6 Semarang-Central Java-Indonesia*

**Abstract**

This research aims are to know: (a) how is the competence of primary school teachers; (b) what are the strategies for continuous professional development of primary school teachers; (c) where do the source of fund for continuous professional development of primary school teachers; and (d) what kinds of training to increase the professionalism of primary school teachers. This research is a descriptive qualitative research with type of case studies. This research conducted in Purworejo District over four months starting from August-December 2015 with steps of research using Miles and Huberman model. The data obtained through a search of the document and confirmed through focus group discussion of related parties. The results of the research shows that: (a) the average results of the teacher competency test of either class teacher or subject matter teacher in Central Java is higher than national result, and the results of Purworejo District is higher than Central Java, but lower than national target; (b) the strategies for continuous professional development of primary school teachers is carried out based on the teachers working group; (c) the sources of funding for continuous professional development comes from district budget, the school operational assistance from each school, and individual teachers; and (d) some training should be given to primary school teachers are subject matter related competency, pedagogic related competency, scientific writing, and to create innovative work. Based on the results of this research, it is recommended to let local governments create written district policies by Purworejo District to guarantee the continuous professional development of primary school teachers.

***Keywords****: teacher competency, continuous professional development, source of fund, and district policies.*

## 1. Introduction

Development strategy and policy direction of the sub fields on education of the Government of Indonesia by 2015-2019 prioritized to enhance professionalism, quality, and accountability of teachers and educational personnel. Activities to achieve this include the strengthening of the system of teacher competency test; implementation of the performance appraisal of teachers that are valid and reliable as well as carried out in a transparent and sustainable; the improvement of academic qualification and certification of teachers with improvements to program design and alignment of disciplines; implementation of the continuous professional development; implementation of career coaching; improvement of qualifications; competences development for educational personnel including the principal and superintendent [1].

The professionalism of the teachers is very important to note, as a professional teacher will produce good-quality graduates. The most important factor in determining student learning outcomes is teachers, in addition to the characteristics of the students themselves. Hattie from the University of Auckland (2011), with meta-analysis to estimate of the effect on the achievement of student learning outcomes by 30% was influenced by the teacher. Other influences are the characteristics of students, friends, parents, and schools [2].

In fact teachers in Indonesia have not been professional, at least when viewed from a professional and pedagogic competence. The results of the competency test of the teacher nationwide by 2015 was 53 on average, while the average results of competency tests for teachers in Central Java by 2015 was 58.93. The Government of Indonesia has set a target of increasing the competence of teachers with a minimum score of 80 starting in 2015 to 2019 respectively have elevated the percentage as follows: 55%, 65%, 70%, 75%, and 80% [1].

Considering the low of the teacher competency test results, it still needs to be done further action to enhance the professionalism of teachers. This program in Indonesia was known by the name of Continuous Professional Development (CPD). Based on the Permeneg PAN and Bureaucratic Reform No. 16 in 2009 about the Functional Position of Teachers and Its Credit, CPD is the development competence of teachers that implemented according to the needs, a gradual, sustained to enhance the professionalism of teachers [3].


ISBN: 978-602-74576-0-7

Bolam suggests that CPD is a process of continuous education, training and learning aims to improve and develop the knowledge, skills and professional values [4]. Other experts say, CPD is the opportunity that is given to teachers, other professionals, and supporting personnel to gain knowledge and attitudes that will bring about change so that new behaviors that impact can improve student achievement. CPD is a process to maintain and improve skills, attitude, understanding, or the performance of the teacher's professional performance [5].

The discusion of this paper is limited on: (a) what condition of primary school teachers' professionalism in Purworejo District, (b) what strategies of continuous professional development for primary school teachers, (c) how to fund continuous professional development of primary school teachers, and (d) what kind of training to be given to the teachers. There has been no definite form from the Office of Educational in Purworejo District, so researcher conduct a search of the document and the focus group discussion to obtain the necessary data.

## 2. Methode

This paper is based on the results of research with a descriptive qualitative approach of a case study. Research conducted in Purworejo District for four months starting from August-December 2015 with steps of research using Miles and Huberman model. The data obtained through a search of the document and confirmed or complemented by focus group discussion of the parties concerned. The informan are comprised of head of teacher and educational personnel, head of primary education, sub head of elementary curriculum, head of sub-division of planning, superintendents, principals, and teachers. The document used was Regional Government Budget (APBD) of Purworejo District by 2015, Budget Implementation Form (DPA) on Office of Education Culture Youth and Sports Purworejo District by 2015, basic data of primary education (Dapodik) by 2015, list reception of school operatioan assistance by 2015, and the list allowance of teachers' certification by 2015.

## 3. Result and Discussion

### *3.1. Primary School Teacher Competence*

In 2012 the teacher competency test has been done to primary school teachers in Indonesia. The result has been disseminated through the website of the Ministry of Culture and Education [6]. Teacher competency test results by 2012 indicate that the average classclass teacher competency of primary school teacher in Indonesia only 40 of the range 0-100. The average result of elementary class teacher competency in Central Java reaches 46.06. The average result of primary school class teacher competency in Purworejo District reached 47.58.

The average result of primary school physical teachers nationally in 2012 reach 39 ranged between 0-100. On the same year, the average result of elementaru school physical teachers in Central Java reached 42.63. Meanwhile the average test results of primary school physical teacher in Purworejo reached 45.67.

These data indicate that the average results of the competency test of class teacher and subjects matter teachers in Central Java was better than the national average. Meanwhile, the average results of the competency test of the class teacher and subject matter teacher on primary school in Purworejo District was better compared to the average result in Central Java.

By 2015 the Ministry of Education and Culture organized a teachers competency test online that are followed by teachers of kindergarten, elementary, junior high school, school for special need, senior high school, and vocational school. Participants of the teacher competence test from Central Java province as many as 304,538 people which consists of kindergarten teachers as 44.245, primary school teachers as 144.575, special need teachers as 2.110, junior high school teacher as 58.798, senior high school teachers as 21.274, and vocational school teachers as 33.536.

The average results of the professional and pedagogic competence nationaly by 2015 was 53, while the


ISBN: 978-602-74576-0-7

average results of professional and the pedagogy competence in Central Java was 58.93 for all level of education. The average results of the professional and pedagogic competence of kindergarten teachers was 58.20; primary school teacher was 57.19; teacher for special need was 56.60; junior secondary school teacher was 62.00; senior secondary school teacher was 65.80; and vocational school teacher was 58.00. The average results of the professional and pedagogic competence by 2015 for primary school teachers in the Regency of Purworejo was 57.98. The data also showed that by 2015 the average results of professional and pedagogy competence of primary school teachers in Purworejo District was better than average result of primary school teachers in Central Java Province.

In the context of the development of teachers' professionalism it is the first step to do and this is what is called the training needs assessment (TNA). Based on the above conditions, it is clear that much needed to development primary teachers professionalism in Purworejo District. This is because the average results of the professional and pedagogy competence of primary school teachers only reached 47.58 in 2012 and in 2015 achieved 57.98 which mean it has not yet reached the national Government target as of 80.

### *3.2. Continuous Professional Developmenet Strategy*

There are four strategies of teacher professional development widely applied in many developed countries: standard of professional practice, evidence informed practice, performance management and performance-related pay, and professional learning communities [4]. Teachers who become community learners do the collaboration with other professional teachers in the school and outside the school and have access to the expert teachers. This is done through professional organizations, teachers of similar subjects through the medium of seminars, workshops, training and many more. One of the ways is become a member of teachers' professional organizations and attend professional meetings that has agenda normally reflected the needs and interest of teachers [7].

Based on data of the Office of Education Culture Youth and Sports in Purworejo District in 2015 [8] the number of of civil servants teachers as much as 5.472 people and among them are elementary civil servant teacher as of 3.558 (65%). By 2015 there were 94 primary school teachers who proposed the increase of their career and 77 was approved. This means that there are 22% of the teachers who proposed increases of their career ware not approved due to lack of teacher development components and innovative work made by teachers. This shows that there has been unsystematic program from Office of Education or each individual teacher to develop their profesionalism.

Nationalwide, a teacher who relies on training from central government will takes 20 years [9]. In Purworejo District, if training ware fairly and evenly every teacher will be able to attend training once in 10 years. With this kind of condition indicates lower ability of the district budget to improve the professionalism of teachers in Purworejo District. In the list of the implementation of the district budget on the Office of Education by 2015 showed that teacher professional development budget for one year only IDR 24,000,000, the budget is very small if compared to the number of teachers there.

Concerning to those conditions so then Office of Education Culture Youth and Sport in Purworejo District make breakthrough strategies to do acceleration training to teachers. Some of the policies issued ware: (a) mandatory teacher training at least once a year, (b) teacher training was carried out at the level of the cluster caled teachers working group or well knows as KKG, and at junior high school on rayon and well


ISBN: 978-602-74576-0-7

known as MGMP, (c) facilitator of the training as a priority, and (d) mobilizing sources of financing outside the district budget forintance from schools operational sssistance well knows as BOS and from allowance of the teachers' profession who are already certified.

Teacher training will be held in the teachers working group for the class teacher, the teacher of Islamic subjects, and teachers of physical subejct. The number of the cluster ware 72, the number of schools ware 523, the number of class teacher ware 3.764, the number of Islamic religious teachers ware 399, and the number of teachers of physical education ware 443 people. So the total teachers in Purworejo District are 4.406 either civil servant or private teachers. In the next five years, all the teachers are to get training in evenly to improve their profesionalism.

Good training must be trained by qualified and experienced trainers, so the first step is to have coachs/facilitators on the district level. The selected teachers who have received training and the subsequenty they become district facilitator. These facilitators will train teachers in each school and assist teachers in implementing the teaching-learning in the class and management at school level.

Therefore, in calculating the costs there are three types of training: (a) training to produce a trainer/facilitator caled ToT (Training or Trainer), (b) training to train teachers in every school, and (c) coaching in every school and in classroom.

The strategy to develop teacher professionalism will not get the support of policy and district budget if it is not included in the budgeting cycle of the district government. Then the strategies should be incorporated into the strategic plan for the Office of Education Cultural Youth and Sports of Purworejo District. In the strategic plan, this activity aims to improve the competence of teachers and educators. The goal is the principal, class teacher, teacher of physical subjects, and teachers of Islamic religious subjects. Increase their professionalism. The indicators close to this activity are all the principal, class teacher, and teachers of subjects matter following training every year 1 time. These activities include an increase in the quality of educators and educational personel, its shape is training educators to meet the standards of competence.

### *3.3. Where Did the Funding Source for Continuous Professional Development?*

The number of teachers who will be trained for 4 years distributed i.e. in 2016 to 2019. The number of teachers and days that will be trained for four years was 4.544 man days, 4.587 man days, 3.138 man days, 4.148 man days. That means everyone will get training more than day one. The cost for 4 years training was IDR. 3,949,820, IDR 3,713,220, IDR 1,915,290, and IDR. 2,535,840.

But there was budget constraint for Regional Government Budget (APBD). It was realized that the majority of income source (57%) was grant from County Equalization Fund (DAU) from Central Government. Only 43% of income from genuine district revenue (*Pendapatan Asli Daerah*) and other related revenue (*Pendapatan Lain-lain yang sah*). Of the total Regional Government Budget of Purworejo District in 2015 has been allocated for education amounted to 52%. Despite the fact that budgets allocated for education are already that much, but as much as 85% of the education budget was allocated to employee salaries, 10% spending for capital expenditures, and only 5% to goods and services. Teacher professional development as a long-term of investment is including capital expenditures on human resources.

The financial ability of the Regional Government Budget (APBD) of Pureworejo District seen from the allocation of goods and services that can be used to provide training to the teachers was very small, that was IDR 24,000,000 by 2015. Therefore, to enhance the professionalism of teachers could not depend on the district budget. There are two important sources of funds that can be used


ISBN: 978-602-74576-0-7

to finance the developmenet of teachers' profesianalism, i.e. school operational assistance funds and allowances of teacherss prefession.

Based on the acceptance of the school operational assistance fund of primary school for the entire Purworejo District by 2015 with total students as many as 66.799 and every student received IDR 800,000 accumulated funds will be IDR 53,439,200,000. School operational assistance funds could be allocated to develop the professionalism of teachers on an ongoing basis as stated in the instructions of school operational assistance by 2015, component 9 [10], namely to increase the competence of teachers and educational personnel. Generally the percentage of the operational grant school that used to develop the competence of teachers and educational personnel reach 5%. Using these assumptions, then there is a potential of the school operational assistance in Purworejo District of IDR 2.7 billion within a year.

Another source of funding that could be used to develop the professionalism of teachers is allowance of teachers' certification. The amount of allowance of teachers' certification on primary school teachers by 2015 was IDR 53,439,200,000. If the 5% is used for professional development of teachers then it will have accumulated fund of IDR 2.7 billion within a year.

Office of Education Culture Youth and Sports in Purworejo District has also been measuring the amount of the cost of training at school level. If the training was attended by 50 people and held for 4 days cost IDR 710,000. Meanwhile, the number of primary school teachers in the Purworejo District currently 4.406 people.

That is to say, from two sources of funding, namely the school operational assistance and allowances of teachers' profession available potential funds amounting to IDR 5.4 billion within one year can be used to train teachers twice a year and any training conducted for 4 days. If this is really the case, then the professionalism of teachers will increase rapidly, because usually training given within 10 years for 1 time and now added one year twice.

### *3.4. What Kind of Training to Improve the Professionalism of Teachers?*

Teachers professional development can be done through models of educational supervision. This model consisted of: cooperative professional development, clinical supervision, informal supervision, and supportive supervision. In addition to the educational supervision model, there is also a model of individualized professional development [11].

The teachers working group model or professional learning groups have been applied in Indonesia. There was also a model of mentoring often referred can also be used to develop the professionalism of teachers [12]. In Indonesia this professional learning group model done in KKG (teachers working group) for primary school teachers and the MGMP (musyarwarah subjects teacher) for teachers of junior-senior high school. Mentoring model has been applied in schools partners of Decentralized Basic Education (DBE) and PRIORITAS (Prioritizing Reform, Innovation, and Opportunities for Reaching Indonesia's Teachers, Administrators, and Students), both of which are funded from USAID (United States Agency for International Development).

In higher education, professional development of lectures has been done and has been running better. This kind of program has been running since the 1960s and has now been recorded five eras, namely: scholar, teacher, developer, leaner, and networker. In the fifth, the professional development of lecturers in higher education is partnering with other colleges in order to resolve the problems facing in higher education [13].

Of the various models above, the continuous professional development of teachers can be done through a variety of training. On a training, needs coachs/facilitators who will in charge of providing training. Those


ISBN: 978-602-74576-0-7

coachs/facilitators are considered a more experienced and have more knowledge than the rest of the participants. The coachs/facilitators could come from within the district or from outside the district. If coachs/facilitators comes from within the district then the cost will be cheaper.

In order for the training of the continuous professional development of teachers run efficiently and effectively, then the first step is finding supervisors/principals/teachers who have senior and experienced as a coachs/facilitators. Therefore, the first stage is hosting a ToT (Training of Trainers) in order to make available trainer to the related teaching learning material or school management. The participants of the ToT are superintendents, principals, and teachers who have experience. The participant of ToT will then act as district facilitators whose task is to train other school principals, teachers, and school committee in training at the district level.

The training programs for an ongoing for 4 years, in 2016 to 2019 to every teacher who will develop their profesionalism have discussed. List of training in order to continuous profesional development for primary school teachers in the Purworejo District is as below.

Table 1. Type of Training In The Framework Of Continuous Professional Development of Teachers

| No | Name of Training | Participants |
|---|---|---|
| 1 | ToT for Teaching and Learning | Superintendent, Principals, and Teachers |
| 2 | ToT School Management | Superintendent, Principals, and Teachers |
| 3 | Taining Active Learning | Principals and Teachers |
| 4 | Training School Management | Principals, Teachers, and School Committee |
| 5 | Training Subject Matter fo Primary school | Principals and Teachers |
| 6 | Training to Development Assesment Skill | Principals and Teachers |
| 7 | Training of Writing the Good Questions | Principals and Teachers |
| 8 | Training School Library Management | Principals, Teachers, and Librarians |
| 9 | Training of Teacher Performance Assessment | Principals and Teachers |
| 10 | Training School Reading Culture | Principals, Teachers, and School Committee |
| 11 | Mentoring Active Learning in Classes | Class Teachers and Subject Teachers |
| 12 | Mentoring School Management | Principals, Teachers, and School Committee |

The last two training mention above are mentoring for active learning in clases and school management in primary school. In the event the facilitators to visit classes to ascertain whether the teachers who have been trained in active learning can apply it in class respectively. Similarly mentoring for school management by district facilitators to principals, teachers, and the school committee ware conducted to ascertain whether training in managing a good school has been applied in drawing up the programmes and activities of the school.

Most of the training listed above come from the superior to the staff in the Offoce of Education, it is called educational supervision model. There are a variety of activities that can be done to develop the professionalism of teachers through this educational supervision model, namely: (a) clinical supervision by turns, (b) a discussion of innovation of learning, (c) visiting each other, and (d) sharing of experience in addressing the problem of learning [11].

A list of the activities agenda made by the Team of Continuous Professional Development in Purworejo Distric is the activities programmed by the Office of Education Office Culture Youth and Sport. There are actually other ways to develop the professionalism of teachers, namely individualized professional development, which is intended for teachers who are already professionals and who have a high level of commitment. This model more emphasis to: (a) teacher self-awareness to develop his profession, and (b) demand the responsibility of teachers to work alone to develop their profesionalism. The activities include through further studies, research, study visits, seminar, workshop, and scientific writing [11].

The professional development of teachers independently can only be applied to the teachers who have high independence and initiative. If using an X-Y Theory of McGregor, a model of teacher professional development independently is suitable for those that include the theory Y category, which is able to develop themselve only with little support. The motivation comes from the inside of individual. Different with those included in theory X that need direction, supervision, and strict control of the supervisors in deleloping themselve [14].

Teacher professional development should have a clear standard as is done in


ISBN: 978-602-74576-0-7

New York: there is the design of professional development of teachers, there are clear content knowledge and teaching, based on the research results, teamwork, using various models, concerning learning environment that is safe and convenient, there is a partnership of various parties, data-based, using technology, and evaluation [12]. Some of these standards have been applied to activities in Purworejo District, but there is a part that has not been applied.

## 4. Conclusions

The results of the teachers' competency test in 2012 showed that the average of primary school class teacher competency in Indonesia only 40, in Central Java reaches 46.06, in the District of Purworejo reached 47.58. The average results of competence of physical education teachers in primary schools nationally in 2012 reach 39, in Central Java reach 42.63, and in Purworejo reach 45.67. The average results of primary school teachers 2015 in Central Java was 57.19, and in the Purworejo District was 57.98. These data indicate that the average results of the competency for class teacher and subject matter teacher of primary school in Central Java was better than the national average. Meanwhile, the acerage results of the test the competency of class teacher and the subject matter teacher of primary school in Purworejo District was better compared to the Central Java, but still lower than the national target.

The development of primary school teachers was done using the strategy of professional learning communities, namely the teacher working group (KKG). Policy that was taken that, every teacher must attend training one time in every year. Prior to the training, there will be ToT for fistrict facilitator. In order guaranty that the strategy of continuous professional development of teacher, it should be entered into a cycle of budgeting in the Office of Education Culture Youth and Sports.

Source of financing of continuous professional development of primary school teacher from Regional Government Budget of Purworejo District was very small, therefore need to get financial support from other sources. Two sources of financing which has great potential are of school operational assistance and allowance of teachers certification. Nevertheless need to be made explicit and clear rules so that the use and management of huge funds can be done efficiently and effectively.

Training provided to primary school teachers is related to subject matter competence, pedagogic competence, writing a scientific paper, making innovative works, and training of other support on educatioan. The cycle of training are: training of trainers, training to class teacher and subject matter teacher in teachers working group, and mentoring to each schools.

Teacher professional development can be done in a programmatic and independently. One of the programmatic models is educational supervision for teachers. In the context of Purworejo District this can be done by the school superintendent to the principal. It is also possible done by principal to the teachers in each school. If teachers are applying individual model must make a personal programme in order to develop their profesionalism. Teachers who have a high performance, have high motivation to work, and have a high competence will be suitbale using the model of individual.

Based on the results of such research are recommended to let local governments create written policies for Purworejo Disritc to ensure continuous professional development of primary school teacher come thrue. Thus there is a certainty that it will run safely and smoothly

## 5. Acknowledgments

Thanks to the team of USAID-PRIORITAS of Central Java province and team of continuous professional development of Purworejo District that has been carrying out meetings both formal and informal in making continuous professional development programs for teachers, that became a source of inspiration of this writing. This article follows the approach of "best practiced" applied by the USAID PRIORITAS in develpoing continuous professional development of teachers. The stages approces was Training of Trainers-Practice in Schools-Training-Mentoring-Application-Continuous Mentoring which is often known as "in on in" approced.

## References


ISBN: 978-602-74576-0-7

[1] Peraturan Presiden Republik Indonesia No. 2 Tahun 2015 tentang *Rencana Pembangunan Jangka Menengah Nasional Tahun 2015-2019*.

[2] McKinesy. 2007. *How the World's Best Performing School Systems Come Out on Top*.

[3] Permeneg PAN dan Reformasi Birokrasi No. 16 Tahun 2009 tentang *Jabatan Fungsional Guru dan Angka Kreditnya*.

[4] Buss, T and Bell, L. (editors). 2002. *The Principles and Practice of Educational Management*. London: Paul Chapman Publishing.

[5] Seyfarth, J. T. 2002. *Human Resources Management for Effective Schools*. Boston: Allyn and Bacon.

[6] www.ukg.kemdikbud.go.id

[7] Heck, S.F dan Williams C.R. 1984. *The Complex Roles of Teacher: An Ecological Perspective*. New York: Teacher College Press.

[8] Data Pokok Pendidikan Kabupaten Purworejo Tahun 2015.

[9] Danim, S. 2011. *Pengembangan Profesi Guru: Dari Prajabatan, Induksi, Ke Profesional Madani*. Jakarta: Kencana.

[10] Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia No. 161 Tahun 2014 tentang *Petunjuk Teknis Penggunaan dan Pertanggungjawaban Keuangan Dana Bantuan Operasional Sekolah Tahun Anggaran 2015*.

[11] Masaong, A. K. 2013. *Supervisi Pembelajaran dan Pengembangan Kapasitas Guru: Memperdayakan Pengawas Sebagai Gurunya Guru*. Bandung: Penerbit Alfabeta.

[12] Bashori, K. *et.al*. 2015. *Pengembangan Kapasitas Guru: Dari Sekolah Sukma Bangsa untuk Indonesia*. Jakarta: PT. Pustaka Alvabet bekerjasama dengan Yayasan Sukma dan Media Group Jakarta.

[13] Kydd, L; Crawford, M, and Riches, C (editor). 1997. *Professional Development for Educational Management*. Buckingham: Open University Press.

[14] Gillespie, K.J; Robertson, D.L. and Associates. 2010. *A Guide To Faculty Development*. 2nd Edition. United States of America: Jossey-Bass.


ISBN: 978-602-74576-0-7

# TEACHERS AND ICT: TOWARDS AN EFFECTIVE ICT TRAINING FOR TEACHERS

**IIN KARMILA YUSRI*,^,†, ROBERT GOODWIN*, CARL MOONEY***

**School of Computer Science, Engineering and Mathematics, Flinders University – Australia*
*^Study program of Computer and Networking Engineering, Politeknik Negeri Ujung Pandang, Indonesia*

**Abstract**

A survey conducted by the Ministry of Communication and Informatics indicated the low use of ICT in education sector. Teachers' resistance to use ICT in classroom is often considered as one of the causes why the use of ICT in schools is still far from satisfactory. This study reported a survey conducted to investigate the use of ICT by teachers in their teaching and learning activities and the experiences of teachers participated in ICT training. The survey had 308 high school teacher respondents in South Sulawesi Province, Indonesia. The results shows that teachers in Indonesia had already applied ICT as media of teaching. However, they did not utilise ICT optimally in their learning and research activities. Lack of technical support and ICT knowledge and training were the main obstacles for teachers in using ICT. Teachers' experience in participating in ICT training had significant positive association to their willingness to learn more about ICT by themselves. This paper suggests the ICT training program for teachers should not focus only to development of ICT skill. The training should prepare teachers how to optimise the use of ICT for their teaching and learning activities. Another important aspect to be included into curriculum of ICT training for teacher is an ICT technical support including troubleshooting. The continuous ICT training is essential to help teachers keeping up with the development of ICT.

## Introduction

Despite the government efforts to provide schools with more access to ICT, a survey by the Ministry of Communication and Informatics indicates low use of ICT in education sector [1]. The survey was conducted in 801 schools in 17 major cities in Indonesia. Based on the survey, it is found that 98% of the schools have been using computers for teaching and 80% of them had access to the Internet. Interestingly, the survey also reported that the ratio of teachers that apply ICT in their teaching and learning activities was only 0.39%. Teachers' resistance to use ICT in classroom is often considered as one of the causes why the use of ICT in schools is still far from satisfactory [2].

Teachers' hesitation in using ICT in the classroom teaching for their students is mostly because they are not confident of their ICT knowledge and skills [3]. Lack of confidence was the main barrier for teachers to use ICT in the classroom [4]. Other barriers which were directly related to teacher confidence are lack of competence and resistance to change [5]. Teachers' lack of competence in ICT resulted their lack of confidence in using ICT in the classroom; and this lack of confidence resulted resistance to change concerning the use of ICT in teaching and learning activities.

Teachers who consider themselves to be poor skilled in using ICT feel anxious about using it in front of a class of students who perhaps know more than they do. Teachers who experienced this kind of anxiety who were less willing and/or able to make use of technologies in their teaching [4]. When teachers are hesitant to use ICTs at school, the integration of ICT in all phases of curriculum will not be successful.

Consequently, preparing teachers with applicable ICT knowledge and skills is significant for successful ICT integration into education [6]. The Asian policy forum on ICT integration into education suggests that the highest priority in ICT integration should be educating teachers, not providing the technology and infrastructure [7].

Current ICT training was not enough for teachers to be able to use ICT in their teaching. Even though

† Corresponding author. Email: iin.yusri@flinders.edu.au

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

they have received training on ICT skills, many teachers in Indonesia are not optimizing on what ICT has to offer in their teaching and learning activities. This is as a result of ICT training programs for teachers just focus on basic computer literacy with no link to teaching and learning aspects [6]. Most ICT training courses for teachers focus mainly on the development of ICT skills and not on the pedagogical aspects of ICT, as stated by [5,8]. Additionally, some teachers have good ICT skills in terms of their own personal use, but they are unable to transfer these skills to using ICT in the classroom [4].

The main purpose of this study is to assess teachers' experience in using ICT in their daily activities and participating in an ICT training to determine what prevents teachers in using ICT and to investigate what teachers need from an ICT training.

## Methodology

This survey used questionnaire to collect data from teachers. The questionnaire comprised two sections; the first section was related to the demographics of the participants and the second section consisted of questions relating to teachers' experience in using ICT and participating in ICT training.

The participants of this survey comprised teachers from general and vocational high schools in South Sulawesi Province, Indonesia. Teachers in this study were recruited directly in their schools and the questionnaires were handed out to teachers in their schools where they were asked to complete them either before, while waiting for their class, or after the class had finished.

The survey was carried out for a period of 2 months in July – August 2013 with 308 participants from 25 high schools in South Sulawesi Province, Indonesia. Ethical approval for the survey was granted by the Flinders University Social and Behavioural Research Ethics Committee (Project No. 6095). Research permission for the survey was also granted by Regional Government of South Sulawesi Province, Indonesia (No. 0114/P2T-BKPMD/19.36/06/VII/2013).

## Findings

### The demography profiles of participants

This section provides information related to the participants' distribution based on gender, age, academic qualification, and types of school. There were more female than male teachers in this survey (67.21% compared to 32.79%). The largest number were 41 to 50 years old, which around 41.23% from total participants.

In terms of academic qualification, the highest level achieved by most of participants had a bachelor degree (72.73%). 45.13% of respondents who had a bachelor degree were teaching in junior high school, while 14.94% and 12.66% were teaching in senior and vocational high schools, respectively. A group of participants with a master degree (18.51%) consisted of 6.82% junior high schools teachers, 9.74% senior high schools teachers, and 1.95% vocational high schools teachers.

Furthermore, most of teachers with a diploma degree were teaching in Junior high schools (4.87%). Then, 2.27% and 0.65 % of participants had a diploma degree and worked in senior and vocational high schools, respectively. Teachers with a doctoral degree only found in senior high schools teachers group (0.97%).

### ICT in teaching and learning activities

Mainly teachers claimed that they used computer for their teaching activities in the class (82.14%) but only 24.03% of teachers connected their computers to a projector when delivering their courses. Around 51.30% teachers still using OHP in their class. Television and DVD/VCD were also applied in class by 57.79% of teachers.

In the questionnaire, teachers were given five learning activities using ICT and were asked how often they did the activities. Around 27.30% of teachers claimed that looking online for the content or material for their students as their daily activity while 21.80% of teachers did at least once a week. The percentage of teachers who rarely did this activity (at least once a month and just few times a year) and teachers who never did the activity were almost equal with 26.90% and 24.00% respectively.

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

Furthermore, only 10.10% of teachers look for material online to help them create lesson plans. Most of teachers did it just few times a year (40.3%). Using ICT as media for sharing ideas with other teachers was the most rarely activity conducted by teachers. Out of 308 participants, 35.1% did it just a few times a year and 36.7% never carried it out, only 9.7% did it as everyday activity.

Correspondingly, the percentage of teachers using ICT every day to obtain up-date information regarding education issue or their subject of teaching was only 14.30%. There were two distinct groups of respondents according to their frequency conducted this activity which are just a few times a year (30.50%) and at least once a month (21.40%).

Social networking site like Facebook was quite popular among teachers with around 37.70% of teachers stated that they log in to this application every day to discuss with other teachers. However, the percentage of teachers claimed that they never used social networking site for sharing with other teachers was almost equal (34.70%).

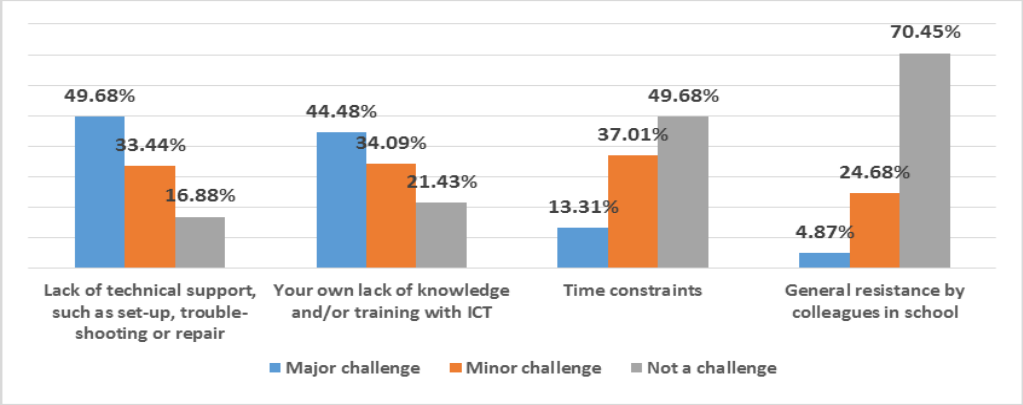



Figure 1. Challenges for teachers using ICT for teaching and learning activities

Subsequently, the survey questioned teachers about the challenges prevent them for using ICT. There were two main challenges for teachers using ICT in their teaching and learning activities. The first was the lack of technical support with around 49.68% of teachers considered lack of technical support as major challenge and 33.44% saw it as minor challenge. Most of teachers only knew how to use the technologies, not how to handle problems when using them. The second challenge was the lack of ICT knowledge and/or training. More than 44% of teachers indicated their lack of ICT knowledge as a major challenge for them using ICT while 34% of them considered it as a minor challenge.

**ICT training experiences**

Around 72.4% of participants had participated in ICT training. The type of training mostly was face to face training and carried out in a week or less. Participants did not have experience joining in web-based ICT training. However, there were 4.02 % of teachers had participated in blended type of ICT training.

More than 55% of teachers with ICT training experience stated that they did not have to travel for participating in the trainings since the trainings were conducted in their schools, while 29.02% and 15.63% of teachers had to travel to other places in their city and to other city, respectively, to attend the trainings. In the term of training topic, 51.79 % of teachers with ICT training experience claimed that their training did not cover topic on how to incorporate ICT in teaching and learning activities. All teachers considered their ICT skill were increasing after participating in the trainings.

More into the training topic, Word processor application was the most frequent topic presented in ICT training, following by spreadsheet application, internet


ISBN: 978-602-74576-0-7

browser, and operation system. The rarest topic delivered in ICT training was how to set up the computer. Beside those topics, ICT training for teachers also covered topics such as how to set-up an email, e-learning, programming, and multimedia.

In term of their ICT skill development, the majority of teachers (69.5%) claimed that they had sought out on their own opportunities to learn more about ICT. They did it by practicing ICT by self at home, learning from internet, and asking to other people such as friends and relatives. Furthermore, the relationship of teachers' ICT training experiences and their willingness to learn more about ICT was investigated. Hence, the data about the teachers with and without ICT training experience was cross tabulated with data on the teachers who learnt more about ICT by themselves.

A chi-square test was performed to see the relationship between these two variables. The test indicated that there was significant association between teachers with ICT experience and teachers with willingness to learn more about ICT by themselves $\chi^2(1, n = 308) = 7.510$, $p = 0.006$. This finding reveals that ICT training experience of teachers increased teachers' interest to learn about ICT.

## Discussion

Teachers ICT experiences was explored in the survey. In terms of experience in using ICT in teaching activities, the findings obtained from this study indicate that majority of teachers had already applied some technologies as media of teaching such as a computer. However, only few of them connected their computer to a projector as media of teaching as a result of limited number of projector owned by school. In term of learning and research activities, teachers did not utilise ICT optimally. Also, teachers used ICT as media of collaboration with other teachers were also just a few.

This survey reveals that there were two main obstacles for teachers in using ICT in their teaching and learning activities. The first was the lack of technical support. Technical support is a support that teachers required when they found problems in regards to the devices when using ICT. The lack of technical support became a challenge for teachers because handling technology breakdown frustrated teachers when using ICT [9]. Most teachers knew how to use the technologies, but only limited teachers knew how to handle problems when using them. Research by [10] proposed the lack of technical support as a main barrier for teacher in integrated ICT into their class.

The second main obstacle was the lack of ICT knowledge and training. Teachers were still reluctant to use ICT in teaching and learning activities because of their lack of ICT skills, not for pedagogical reason [5, 8]. Teachers without adequate ICT skill would not confident to use ICT in their class.

Turning to the teachers' experience in participating in an ICT training, typical ITC trainings attended by teachers were mostly face-to-face training and conducted around a week. The trainings were conducted in their schools, other places in their city, and other cities; usually big cities. The location of training was a problem for the majority of teachers to attend the training. Travelling means teachers have to spend money for their transportation and accommodation, and also teachers had to sacrifice their time for attending training [11].

Despite of that, teachers participated in the survey confirmed that their ICT skill increased after participating in ICT training. A similar result found in the study on ICT training courses for teachers in Jordan by [6]. However, most ICT training courses for teachers focus mainly on the development of ICT skills and not on the pedagogical aspects of ICT, as stated by [8]. Some teachers have good ICT skills in terms of their own personal use, but they are unable to transfer these skills to using ICT in the classroom [4]. Furthermore, this survey found that ICT training experience of teachers was significantly associated with teachers' willingness to learn more about ICT by themselves. The need for continuation in the field of teacher training is important since increased competence leads to a demand for even greater competence and to support for innovative pedagogy [8].

## Conclusion

This study presents teachers experience in using ICT in teaching and learning activities and participating in ICT training. Lack of technical support and ICT skill


ISBN: 978-602-74576-0-7

were claimed as a barrier to teachers' use of ICT. Teachers also felt that current ICT trainings were not enough for teachers to be able to use ICT in their teaching because the training just focuses on computer literacy with no link to teaching and learning aspects.

Therefore, this study suggests an effective ICT training for teachers. The training should lead teachers to optimise the use of ICT for their teaching and learning activities by integrating the computer literacy and pedagogy aspect in the training. Another important aspect to be included is ICT technical support including troubleshooting to prepare teachers for handling computer breakdowns since this problem frustrates teachers when using ICT. The content of ICT training should cover ICT basic skill, ICT for teaching and learning activities, and ICT technical support. Additionally, the continuous ICT training is essential to help teachers keeping up with the development of ICT.

**References**


1. Tim TIK Indonesia, "Indikator TIK Indonesia 2011," Kementerian Komunikasi dan Informatika Indonesia, Jakarta, Indonesia (2011)
2. M. E. Harendita, "Why resist? A Closer look at Indonesian teachers' resistance to ICT," *International Journal of Indonesian Studies (IJIS) Volume*, vol. 1, (2013)
3. S. Chen, M. Lin, and H. Zhang, "Research of mobile learning system based on cloud computing," in *The International Conference on e-Education, Entertainment and e-Management*, (2011)
4. A. Jones, "A Review of the research literature on barriers to the uptake of ICT by teachers," *London, UK, BECTA* (2004)
5. K. A. Bingimlas, "Barriers to the successful integration of ICT in teaching and learning environments: A review of the literature," *Eurasia Journal of Mathematics, Science & Technology Education*, vol. 5, pp. 235-245 (2009)
6. A. Abuhmaid, "ICT training courses for teacher professional development in Jordan," *TOJET: The Turkish Online Journal of Educational Technology*, vol. 10, pp. 195-210 (2011)
7. World Links, "The Asia Policy Forum on ICT integration into education: A final report," (2007)
8. A. Balanskat, R. Blamire & S. Kefala, "The ICT impact report: A review of studies of ICT impacts on schools in Europe" *European Schoolnet*: European Commission (2006)
9. UNESCO "Teachers training on ICT use in Education in Asia and the Pacific". *Expert meeting on teachers/facilitators training in technology-pedagogy integration*. Bangkok, Thailand: UNESCO (2003)
10. G. Clarke Sr, & J. Zagarell, "Technology in the Classroom: Teachers and Technology: A Technological Divide", *Childhood education, 88*(2), 136-139 (2012)
11. I. K. Yusri, & R. Goodwin, "Mobile Learning for ICT Training: Enhancing ICT Skill of Teachers in Indonesia". *International Journal of e-Education, e-Business, e-Management and e-Learning*, *3*(4), 293-296 (2013



ISBN: 978-602-74576-0-7

# TEACHERS' PROFESSIONAL DEVELOPMENT AND STUDENTS' ACHIEVEMENT: DOES TEACHERS' LEARNING IN THEIR COMMUNITY OF PRACTICE REALLY CONTRIBUTE TO THEIR STUDENTS' ACADEMIC DEVELOPMENT OR JUST FOR TEACHERS' OWN SELVES?

**ABDUL RAHMAN**
*LPMP Provinsi Sulawesi Tengah, Palu, Indonesia*

**Abstract**

**Teachers are the agents of educational changes and development. They are the frontgate of their students learning. This implies that the development/progress of their students can be significantly related to their teachers' capacity. Many parents today enthusiastically send their children to high qualified schools who have competent teachers. This indicates that teachers can be the key figures who determine students' success in schools. Thus, teachers should be able to constantly improve their quality by learning. They can learn alone or engage in community of practice (MGMP). Through this learning community, they can share their experience and update their knowledge. Some teachers feel strong need and concern to develop themselves through this MGMP. These highly motivated teachers devote their own fund to support their MGMP. The Indonesian government also provides some MGMP grants to back up teachers' effort to develop themselves. Many studies were conducted to assess how this community of practice may contribute to teachers' self and professional development. However, few studies were conducted to observe how this practice can affect students' achievement. There is a missing link between teachers' professional development and their students' achievement. This implies that high intelligent/competent teachers do not always have capacity to produce high qualified students. They can be good/smart teachers for their selves only, but their students still are not progressing. In this study, I intend to analyze whether MGMP affects students' achievement or not and examine several missing factors why teachers professional development through this community of practice may not be able to always ensure students' progress. I interview some teachers who join MGMP bahasa Inggris in Palu. The data show that MGMP contributes to the development of teachers' competence, particularly their pedagogic capacity. However, the teachers believe that their professional engagements do not contribute to their students' academic success. There are two factors identified operating behind this disconnection between professional development and students' progress. Those are teachers' motive and MGMP programs.**

**Keywords: MGMP, students' achievement, teachers' competence, community of practice, professional development, teachers' learning**

## Introduction

Teachers are the central issues when we discuss about education quality. The government has realized that improving the quality of education cannot be separated from improving qualified teachers. As such, many policies issued by the government address directly or indirectly to support teachers quality to improve the education quality. It ranges from setting teachers certificate, providing incentives for certificate teachers, conducting teacher competency assessment (UKG), and supporting teacher professional development.

One of several professional development supported by the government is MGMP (*Musyawarah Guru Mata Pelajaran* or Subject-Matter Teacher Forum). This type of MGMP is designed for teacher of particular subject matter at SMP, SMA and SMK level. This type of MGMP could be held within a school (internal MGMP), inter-school and self-funded program (regular MGMP) and), inter-school with funding support from the government (project MGMP).

Many studies have been carried out to assess whether this community of practice contribute to teachers learning[1–3]. Most of these studies found that professional development improve teachers' competence. However, few studies were conducted to observe how this practice can affect students' achievement particularly in Indonesian context. In fact, teacher competence does not always relate to the improvement of students. For instance, there are many teachers who are expert in their field exist but are not able to transfer their knowledge to their student


ISBN: 978-602-74576-0-7

effectively. Realizing the scarcity of study explores the issue, therefore the main concern of this study is to find out the impact of professional development toward students' achievement.

**Aims of the study**

There are two main objectives which are discussed in this paper. Those are:

1. To find out whether teachers' participation in MGMP affect students' achievement
2. To find why their participation affect or not affect students' achievement

**Theoretical Framework**

**Why professional Development**

Professional development program has widely recognized as a key to develop teachers competencies. Many studies have confirmed the effect of such program[3,4]. The program affects teachers icluding academic, professional, social and personal competence[5]. By mastering the required competences, teachers will have self-confidence, motivation and authority in teaching[6].

One of many factors that contributing to teachers effectiveness is teachers competence. The Act Number 14 of 2005 on Teacher and Lecturer[7] defines competence as a set of knowledge, skill and aptitude which should be possessed, internalized and mastered by a teacher or lecturer in performing tasks of professionalism. This shows that professional development is not only related to content knowledge but also related to teachers' perspective and how they deliver the knowledge into the classroom.

The competence could be achieved if a professional development facilitates teachers with relevant content program. Directorate of Teacher Profession4 outlines at least three main programs which should be included in a teacher professional development. They are: *generic, core, and developmental programs*.

*Generic program* aims at assisting teachers to understand educational policy at regional and national level. This program provides information about new educational policy that operates both in regional and and national levels. This information could be in form of a strategic plan or a new curriculum. The program provide teachers a rational basis of a policy, its impact on education practice, as well as its implementation in classroom. Lichtenstein et al.[6] argue that the by providing such information it will reduce the teachers objection to the new policy and will not regard themselves merely as the object of the policy.

*Core program* is direct and indirect activity provided in professional development program which affect teaching practice at school. It consists of two programs: routine and developmental programs[8]. Routine program relates to teaching practice such as syllabus and program plan designing, curriculum analysis, or content extensive studies. Meanwhile developmental program relates to promoting teachers' skill in their field. It includes training on conducting class action research, creating an MGMP bulletin/journal, doing seminar and writing a scientific paper[8].

Supporting program is knowledge and skill which indirectly assist teacher to access knowledge and skills in teaching practice. This includes ICT (Information and Communication Technology) training and foreign language course. Having knowledge on ICT enable teachers to browse information through the internet. However, since many information is provided in foreign language, such as English, therefore, this effort should be supported by a good command of the language.

**The impact of PD toward teachers:**

Professional development functions to improve the teacher competence. The main competences which are developed in professional development are professional and pedagogic competence. professional competence is teachers' mastery of concepts, underlying construct, structure and interrelation of concept in particular field[9]. This was technical knowledge that should be possessed by a teacher


ISBN: 978-602-74576-0-7

before entering into teaching-related tasks. While pedagogic knowledge is how teachers understanding about the characteristics of student, instructional design and implementation, learner assessment and development[10].

These competences develop during activity in professional development. Teachers learn best through observation and implementation of what they learn through trial and error during a program in professional development.

Professional development affects teachers in many ways, for example in teachers' belief. Teachers' belief affect how the teachers view about their students, value of effective teaching and their function or position in teaching and learning process. This belief determines what type of approach they apply in their classroom. Professional learning includes a process of changing the knowledge, value, skills and habit of teachers. As such many teachers develop their own preferences about what is the effective teaching. This perspective affects how they treat their students when their students succeed or fail to achieve learning goal. Some teachers may believe harsh punishment must be applied if their student fail to meet an instructional goal. When they participate into a professional development program, they may find that such perception will lead to negative consequences on students' learning. Through discussion with their colleagues they could be advised to apply different approach to treat their students.

Professional development could also contribute to teachers' positive efficacy. This efficacy is relating to how teachers confident to improve their affect students' learning outcomes. Teachers with high level of efficacy believe that they can affect students' achievement despite of many challenges they find, while teachers with low level of efficacy perceive that they have little or no control to improve student achievement[11]. Moreover, this efficacy can affect how teachers design their classroom. Those who have strong efficacy tend to utilize innovative and various teaching methods in their classroom, has positive self image on their competence to make difference on student' learning and believe that they could change the unmotivated students[12]. Teachers' efficacy has been assumed to affect students' learning in some ways. According to Capra et al.,[13] teachers with positive efficacy confidently implement new instruction, manage classroom, take time for teaching students with special learning needs, and take students stay on school tasks. Meanwhile, teachers with weak efficacy restrict themselves into the traditional teaching method[12].

When teachers participate in professional development program they are highly likely exposed with many activities which rise their efficacy. For example, teachers receive effective instructional method as well as observe how the expert teachers implement their teaching strategy. Since the program provides positive learning experience their efficacy will gradually develop[12].

**Professional Development and Students Achievement**

Professional development affects students' learning through instruction applied by teachers in a classroom. It is how teachers applied suitable method that could affect students' reception[14]. Some studies show that different method affects students' achievement. For example, "the more intellectual challenging" assignment and hands on, practical and real life like assignment and activity have positive impact on students academic gain[14]. In addition to that, effective teaching also involves strong motivation encompassing passion, commitment, self-belief and enthusiasm[15]. Professional development could facilitates these aspects. In a professional program, teachers are frequently introduced with various and practical instructional methods to improve the quality of their teaching. They could select appropriate method which suit their classroom need. Likewise, professional development could also cultivate teachers' motivation. In the program, they may observe and interact with enthusiastic instructor or colleagues. These enthusiastic people will disseminate positive value about their teaching. As such, this value will diffuse among the teachers and affect their teaching practice. A study by Hughes and Chen[16] shows such positive value could improve students' motivation in learning, sense of school belonging and engagement in classroom positively.


ISBN: 978-602-74576-0-7

Two main competences are highly affected by professional development. They are professional and pedagogical competences. Professional competence is expertise relating to content knowledge of a subject matter while pedagogical competence is relating to teacher understanding of student characteristic, learning process, classroom management, and instructional method[17]. All these competences affect students' success in learning process[18]. Teachers who possess sound content knowledge and are able to disseminate the knowledge based on student' characteristics and competency level will highly likely to affect students' learning. These competences are generally develop at professional development program.

## Research Method

This study is a qualitative research. The number of participants involved in this study were 3 participant teachers and 1 participant headmaster. The participant teachers were the member of a professional program designed for English teachers who are teaching at SMP level in Palu, Central Sulawesi Province. The participants were selected using purposive sampling. The participants were selected based on two criteria, teachers who have been participated into the MGMP for at least 5 years and were approachable. Based on the criteria, the researchers met and asked the chair person of the MGMP of those who met the criteria. They then were listed and confirmed of their consent for interview.

The data was collected using in-depth interview method. Each participant was interviewed using a handphone recorder. The interview results were analyzed based on Miles and Huberman's protocol[19]. Based on the protocol, the interview results were transcribed. The results then were be sorted, classified and simplified to get its meaning and to correlate with other data. Next, the data was reduced to minimize the irrelevant. Finally, the researcher would draw conclusion based on the data finding.

## Finding and Discussion

Some results were found relating to professional development program. They are the content of the program, its impact on teachers' instruction and students' achievement.

### The Teachers' Motive to participate in Professional Development

The main purpose teacher participate in MGMP was to improve their competences. Two examples data excerpts below present the purpose. One of the participants stated:

> *I do not know about other teachers. I am myself still interested since that is for enriching my knowledge. I do not know about other colleagues. Personally, I will participate." (Participant 1)*

Another participant commented:

> *"It has benefit for us. For example, we can improve our ability to make lesson plan and share knowledge with other English teachers." (Participant 2)*

Their voices clearly show that the teachers had to strong commitment participated into professional development commitment to develop their teaching skills. This commitment eventually help them to contiously participate in MGMP for the long term. … The more teachers actively involved into the professional development the more they have opportunity to develop their teaching skills.

Nevertheless, since the teachers priority was for their own learning they may neglected their students' learning. Teachers competence does not always correlate with students' learning. It is how they look at they way their student learn, the problem student face relating to the concept and the process of the way of their thinking about their concept being learned.

### Content of the Professional Development

The content in a professional development program determines what type of competence teacher acquired


ISBN: 978-602-74576-0-7

during its activity. In terms of the content of the program, generally the participants stated that they received knowledge and skills that are relevant to their teaching preparation. One of the participants stated:

> *"Actually We ... learnt programs for example how to make syllabus, how to make a lesson plan. How to write a teachers note, up to [design] assessment." (Participant 2)*

This data shows that professional development provided teachers with basic knowledge, particularly related to administrative tasks for supporting their related to teaching practice. These tasks assist teachers to align curriculum with their teaching content and prepare beside prepared their instruction at classroom. By mastering the task, teachers will able to design syllabus and choose appropriate topic, material, method and time allocation for each topic that guide them to teach effectively on their class.

Besides administrative tasks, professional development also provided the teachers with activities that assist them improving their teaching practice, such as *micro teaching*. For instance, a participant stated:

> *"After [receiving material from] MGMP we were asked to do [teaching] practice as if we teach our students that show how we teach [at class room]. In MGMP, when it was my turn, I was observed. I usually got feedback from other friends. 'When doing teaching practice, you explained it too fast or your voice was weak'. So, it had a positive impact on me, on my teaching." (Participant 1).*

In this micro teaching, teachers observed how other teachers perform teaching for particular subject. They also would be assessed by other teachers. This has positive impact on teachers since they could improve the aspect of their teaching which they cannot evaluate by their own.

The other program received by teachers was developmental program. One of the participants stated:

> *For specific program, it depends on the MGMP committee what they wanted. The program such as providing scientific writing program, and then counting credit point, it has been done, [including] how to make journal. Those all were discussed in MGMP (Participant 1)*

This indicates that professional development is not solely focusing on instructional practice at class but also extending their horizon on academic skills. By providing the skill, it will develop teachers' critical thinking and bridge the teachers with other education researchers globally.

While there are lots contents provided by the professional development provider, there are same program which are not cited by the teachers. After returning from the professional development program it apparently that they have lack of ongoing support. Some researchers argue that providing such supports assists teachers to retain knowledge and skills they receive from the program[20]. This support particularly important if the teachers begin to apply new skills to their classroom. If they find unresolved problem during the application, they may abandon it and using previous method instead.

The lack of ongoing support possibly occurs due to time and financial constrain. Many teachers teach in a different location with a great distance. Sometimes it takes hours to reach their school. Visiting each school will cost time and money. Whereas, the instructor of the professional development program also has main job as a teacher or lecturer. As such, these barriers prevent further support for them.

**Impact of Professional Development on teacher instruction**

Professional development has been believed to contribute toward teachers' competence. This view is validated by teachers and a headmaster's view. One of participant's headmaster observed:

> *"I see if for example, those who did not participate in MGMP had an unsatisfactory result in their teaching process. ... What I mean unsatisfactory here related to teaching*


ISBN: 978-602-74576-0-7

*stages, for example, in exploration, [and] how to elaborate or linking lesson material. While at least there were some improvements [for those who participate in MGMP]." (Participant headmaster)*

In this statement, the headmaster compared his teachers who participated and did not participate in MGMP. He indicates that teachers who participated in MGMP adopt better teaching practice than those who did not. This view is supported by a participant. He said:

*"Before I participated in MGMP when I begin a class I directly said to the class 'open your book'. Now, I realized that there should be a steps before begin a topic; we need to make orientation first". (Participant 3)*

Obviously, in this statement the teacher admitted that professional development contribute to his teaching. Perhaps, this occurs since teachers frequently encouraged in MGMP to adopt new and better teaching practice. Moreover, teachers who participated in professional development also have an opportunity to observe others in implementing the practice.

**Teachers' Perception on whether their Participation in MGMP affect student achievement**

Many participants did not answer this question directly, but most of participants indicated the result did not affect much on their student achievement. For example, a participant said:

*I think it does not directly affect student but to the teachers themselves. Possibly, it affects teachers' instruction. ... I mean, firstly, it affects to the teachers. Perhaps our instructional method is imperfect. That is what we want to improve. May be, it at least affect the students. (Participant 2)*

This statement indicates the teacher perceived that professional development function is to develop teachers' competence first and foremost.

Other participant admitted that professional development has little impact to improve students' achievement. She said:

*I think the impact is insignificant since, at there, teachers that learn. So, it is depends on how teachers adopt it. I think It has a limited impact. Personally, I think, the program has more impact on teacher. Since, I see in every year they have lack vocabulary. So, chance that in one class it have only 5 or 10 competent student. The impact only in the initial teaching. For example, when they were shown a picture they were attentive after that when they get reading or descriptive text it lost. I used to taught at class VII about descriptive text. I show an artist picture, the students said, "Mum, she is beautiful". They comment it in Kailinese [a regional language in Central Sulawesi]. Nevertheless, when I handed them descriptive questions to answer they got poor result since they did not know the meaning of the text". (Participant 1)*

The teacher above argued that the problem that make professional development may not provide teaching strategy to handle such problem. It indicates that the program she attended provides generic teaching method but did not provide relevant method for real teaching practice such as providing vocabulary development technique or other teaching strategies that improve students' vocabulary. Apparently, the professional development fail to provide teacher with skill that resolve their student problem. In relating to this problem, Timperly[21] stated that a professional development should provide teachers with related to contextual teaching. She argues that the method are discussed extensively in many researches but it does not respond to real teaching practice and context. In addition, she suggested to use the method but still assist teachers to translate the method into their teaching practice. The


ISBN: 978-602-74576-0-7

indication of generic teaching method is shown by the membership which belong to all class level. This membership eventually affect how the content presented to the teachers. At least, the teaching method will be general to cover all the need of teachers.

**Conclusion**

Several lessons could be learnt from this study are:

- The main motive of the teachers participate in professional development is to develop their teaching skills. Meanwhile, the motive for improving students' achievement tends to be neglected.
- The main content in their professional development are administrative task, and development program. These contents affect teachers instruction at classroom. However teachers have lack of ongoing support after the program. This possible occurs due to many barriers to provide such support.
- Most of the teachers believe that the impact of professional development many not enough to develop students' achievement. They argue that the professional development is designed mostly for teacher competence purpose.

**References**

1. Milka. Pengaruh Kegiatan MGMP Program BERMUTU terhadap Kompetensi Paedagogik dan Profesional Guru IPA SMP di Kabupaten Donggala [Master Thesis]. [Palu]: Universitas Tadulako; 2013.

2. Rusdi. Pengaruh Pelaksanaan MGMP terhadap Kompetensi Pedagogik dan Professional Guru Biologi SMA/MA/SMK di Kabupaten Sigi [Master Thesis]. [Palu]: Universitas Tadulako; 2012.

3. Sitompul R. Peran Forum Musyawarah Guru Mata Pelajaran Terhadap Kompetensi Guru Di MGMP Geografi Tingkat SMA Kabupaten Bandung [Internet] [Master Thesis]. [Bandung]: Universitas Pendidikan Indonesia; 2009 [cited 2013 Feb 16]. Available from: http://repository.upi.edu/tesisview.php?no_tesis=1075

4. Rusmana T. Perbedaan Kompetensi Guru Pendidikan Jasmani yang Mengikuti dan Tidak Mengikuti Program MGMP Penjas SMP Kabupaten Pandeglang [Internet] [Master Thesis]. [Bandung]: Universitas Pendidikan Indonesia; 2010 [cited 2013 Feb 16]. Available from: http://repository.upi.edu/tesisview.php?no_tesis=249

5. Bandura A. Self-efficacy mechanism in human agency. Am Psychol. 1982;37(2):122.

6. Lichtenstein GD, McLaughlin MW, Knudsen J. Teacher empowerment and professional knowledge. Consortium for Policy Research in Education; 1991.

7. Law No. 14 of 2005 on Teacher and Lecturer.

8. Direktorat Profesi Pendidik dan Tenaga Kependidikan. Rambu-Rambu Pengembangan Kegiatan KKG dan MGMP. Jakarta: Departemen Pendidikan Nasional; 2010.

9. Zeidler DL. Dancing with maggots and saints: Visions for subject matter knowledge, pedagogical knowledge, and pedagogical content knowledge in science teacher education reform. J Sci Teach Educ. 2002;13(1):27–42.

10. Government Regulation No. 19/2005 on National Standard of Education. 2005.

11. Bruce CD, Esmonde I, Ross J, Dookie L, Beatty R. The effects of sustained classroom-embedded teacher professional learning on teacher efficacy and related student achievement. Teach Teach Educ. 2010;26(8):1598–608.

12. Ross JA. Teacher efficacy and the effects of coaching on student achievement. Can J Educ Can Educ. 1992;51–65.

13. Caprara GV, Barbaranelli C, Steca P, Malone PS. Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. J Sch Psychol. 2006;44(6):473–90.

14. Schwerdt G, Wuppermann AC. Do Teaching Practices Influence Student Achievement? 2009;


ISBN: 978-602-74576-0-7

15. Chan KW. In-service teachers' motives and commitment in teaching. 2006;

16. Hughes JN, Chen Q. Reciprocal effects of student–teacher and student–peer relatedness: Effects on academic self efficacy. J Appl Dev Psychol. 2011;32(5):278–87.

17. Directorate General of Primary and Secondary Education. Pedoman Penyelenggaraan Kegiatan MGMP. Jakarta: Departemen Pendidikan Nasional; 1993.

18. Yoon KS, Duncan T, Lee SW-Y, Scarloss B, Shapley KL. Reviewing the evidence on how teacher professional development affects student achievement. National Center for Educational Evaluation and Regional Assistance, Institute of Education Sciences, US Department of Education; 2007.

19. Miles MB, Huberman AM. Qualitative data analysis: An expanded sourcebook. 2nd ed. London: Sage; 1994.

20. Yoon KS, Duncan T, Lee SW, Shapley K. The effects of teachers' professional development on student achievement: Findings from a systematic review of evidence. In New York; 2008.

21. Timperley H. Teacher professional learning and development [Internet]. Belley: Imprimerie Nouvelle Gonnet; 2008 [cited 2014 Dec 5]. Available from: http://www.ibe.unesco.org/fileadmin/user_upload/Publications/Educational_Practices/EdPractices_18.pdf

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

# TEACHING PRAGMATICS USING INSERTION OF HUMOR

**JOKO ARIYANTO, S.PD., M.A**

*English Study Program, Islamic University of Riau, Kaharuddin Nst-113*
*Pekanbaru, Riau, Indonesia*

**Abstract**

Implementing a fun instructional strategy is important to touch students' learning enthusiasm. The main purpose of this research was to find out students' of English learning outcomes of those who were taught through the insertion of humor than those who were taught using a conventional instructional strategy. The population of the research was the fifth semester students of English department in Islamic University of Riau within the subject of Pragmatics. The samples of the research were 37 students in the experimental group and 32 students in the control group who were randomly selected. The data were collected by using written test of pragmatics. The validity and reliability of the instruments had been ensured before they were administered to the students. The finding of the study showed that the students' who were taught by using the insertion of humor had higher learning outcomes than those who were taught using a conventional instructional strategy. It is, therefore, suggested that teachers are urged to insert humor to their instructional strategies in an effort to improve students 'pragmatics learning achievement.

**Keywords: Humor, English, pragmatics, learning outcomes**

## INTRODUCTION

Pragmatics is a branch of linguistics that talks about the meaning based on the context. The meaning of the utterances in pragmatics depends on some considerations, such as who speak, where and when the utterances are spoken. Characteristics of a subject like Pragmatics is loaded with cognitive and affective require special techniques to learn. One of the ways is to implement a fun strategy for the students. One of fun strategies is insertion of humor.

According to Bachman; quoted Geoff, 2004; Canale and Swain, 1980 language learners must not only focus on grammatical competence but also communicative competence (communicative competence). Recognizing the importance of communicative competence, Raskin (1985), proposed that the competence of humor also plays an important role in language learning.

The importance of humor then added by Carell (1997) which states that humor should be included in the competence when communicating with the speaker so that communication becomes warmer and not rigid. According KBBI (2010), humor is a funny thing, panic, or it may cause wit. Sense of humor of a person is personal and is influenced by factors such as gender, age, origin, culture maturity, level of education, context, etc.

Theory of humor originated from the field of psychology, (Endharwarni, 1994: 13), further explained that a humor (X) has two conflicting elements, namely the meaning of the expected (M1) and the intended meaning (M2). If the recipient is aware that one wrong meaning, and then laughed to realize his error, then the meaning of this paradoxical resolved.

The climax of humor is usually formed on the relationship between M1 and M2 are disjunctive. M1 and M2 in the humor serve as a different alternative, or contradict one another (Wijana, 2004: 25).

In addition, the humor that contained in the discourse of humor usually arises as a result of an unexpected element (punch line). The higher is the element of unpredictability, the higher is humorous effects. Dananjaya (199: 12) further states that humor is something that can cause surprise, strangeness, folly, nature, clumsiness, mischief, and others.

Humor is often identified as teaching techniques to develop a positive learning environment for students to be more reactive in capturing a lecture.

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

Humor as a formula when all the elements of education as well as teachers and students gathered together always think positive and enthusiastic about learning. Improving communication with students by having a pleasant attitude and willingness to use appropriate humor into the classroom is one way to prevent the boringness of the students.

Humor in the classroom can be a variety of forms; humor is classified as jokes, riddles, puns, funny stories, and other funny comments. Teachers have found other creative ways to incorporate humor in learning such as cartoons, comics, or by simple experiments. Humor helps students relax and create a positive atmosphere during the learning process. Humor can make the brain a rest in order to process and integrate lecture materials. It can be used as a powerful tool for the students comfortable and make the learning process more enjoyable overall. This is achieved when teachers can integrate the content and use humor with spontaneous and planned.

Humor can also be used to communicate issues related to classroom management. Humor has been successfully used to communicate rules implicit class, encouraging greater understanding of the relationship between a teacher and student. Humor in the classroom is not the answer to all the problems of classroom management, but it is an excellent preventive measure that can defuse a tense atmosphere. Effects of humor in learning can give intimacy, openness, and tolerance and is able to revive student motivation.

Rahmandji cited in Manser and Setiawan stated that, generally there are three basic theories of humor. The first is the superiority theory (theory of superiority). Someone laugh at other people because he considered himself better or superior. People who laugh always underestimate what he was laughing, and then judge it as something inferior according to certain standards. The second theory is relief (theory of release). Because humor is often questioning conventional social requirements, it can be said humor gives us relief or freedom from the restraint of fulfilling these requirements. A third theory is the mismatch (theory of incongruity). This theory states that funny feeling arises because of the events or unexpected situations, or out of place (Rahmanadji in Slang 2009: 216-217).

Classification of humor based on its shape consists of verbal humor; the humor is realized with words, and nonverbal humor, that humor served with behavior, gestures, or pictures (Yuniawan, 2005: 228). Further Yuniawan express humor based classification in terms of the presentation consisted of verbal humor, humor writing, humor and cartoons.

The spirit of humor can create excitement (re-motivation) for the students and it will obviously have an impact on achievement. Classes those are full of openness, familiar, and passion will perform better than the class that less passionate, lethargic and depressed, humor should not be directed at an individual or group; racial insults or ridicule of the target group should be avoided. Humor presented also affect how it is received by the students, sexual humor should be avoided unless it is directly related to the content such as sexuality education. Teachers have a strong role in the proper use of humor in the classroom to enhance the sense of community. Humor can be maintained and integrated into the classroom in a way that creates a sense of openness and mutual respect between students and teachers. When students feel safe, they can enjoy the process of learning and each other, the wise use of humor can contribute to effectiveness in teaching and learning process framed by the presence of humor in it will be filled with cheerfulness, loyalty, motivation and democracy and learning achievement.

Humor had been used as a technique since the Babylonian Talmud era, which is of a Talmudic teacher who lived about 1700 years ago. The teachers stated something humorous to start learning with their students and then they laughed, after which they started learning. Rabbi Meir, other Talmudic teachers


ISBN: 978-602-74576-0-7

who are experts in a fairytale run with a lot of learning parable, using humor as a distraction to learning. The teachers are very confident of the positive value of humor in education, even in the teaching of ethics and religion.

Humor can prevent someone from getting bored. Cooper and Sawaf (1999: 189) states that humor a teacher encourages children to always cheerful and happy and will not feel bored or tired quickly. Staton (1978: 29) also argued that the stories that are important or the skills to use the right opportunity to inject humor wisely/

"Humor can communicate the feeling of like or dislike, and be able to use humor to express positive or negative feelings about others" (Shapiro, 1997: 13). In turn open communication between teachers and students, allowing students can ask a question that is difficult to solve and teachers can quickly figure it out and help find solutions, "With humor we can enjoy the work process that requires serious thought as assess, solve problems and make decisions" (Cooper & Sawaf, 1999: 84).

Brotherton (1996: 78), gives the reason that the use of humor in the classroom gives positive impact on the students' mind, the impact of factors including communication and humanitarian effects of humor on one's image. Berk (1998: 80) states that humor has the ability to reduce the anxiety of students, improve learning, and boost self belief. Humor can also encourage students to create an atmosphere of learning and very helpful in the classroom.

Flowers (1995: 12), states that there are significant advantages to using humor in the classroom. Humor benefits include reducing the "stress", increase motivation, and reduce the psychological distance between teachers, students, and increase creativity.

From opinions above are at least four benefits of humor in learning: (1) build relationships and improve communication between teachers and learners, (2) reduce the "stress, (3) makes learning interesting, (4) improve memory a course material.

Situation and student in question does not have to be completed by the anger of teachers and education managers or give harsh punishment, but it can be solved elegantly through a series of humor in learning. Humor framed appropriately and in accordance with the culture conditions, emotional learners will be a workable alternative learning strategies and funny is surprising and at the same time all parties. With that background, researchers interested in conducting research on the issues mentioned above by lifting the title

"Teaching Pragmatics Using Insertion of Humor"

The problems developed in this study are as follows.

1. Is there any significant difference between students' pragmatics score that are taught by using insertion of humor higher than those taught by conventional learning strategies?

2. What do insertions of humor contribute in teaching pragmatics?

**METHOD**

This study was designed to use an experimental method. An experimental research consists of two groups, an experimental group and controlled group. Typically, the experimental group receives a new treatment, or has treatment under investigation, while the controlled group either receives a different treatment, or is treated as usual (Kerlinger. 1973). The population of this research is fifth grade students of English study program, academic year 2015/2016, Islamic University of Riau. This study was conducted from September to December 2015. There are two classes of sample, namely the fifth grade G as an experimental class and fifth grade F as a control. The design of the experiment can be described as follows: E 01 x 02

C 03 - 04

It can be explained that the subject are assigned to the experimental group (top line) and control group (bottom line). The researcher checks the quality of the subjects first by giving a pretest (01 and 03), then gives the experimental treatment. In this


ISBN: 978-602-74576-0-7

research, is taught pragmatics by using insertion of humor to the experimental group, while the controlled group is taught without humor insertion.

This research, which uses humor as teaching aids in improving pragmatics understanding, has two variables. They are an independent variable and a dependent variable. Here, the independent variable is the teaching using insertion of humor and the dependant variable is the students' achievement manifested in the test score.

The instrument was developed in two forms, namely: (1) treatment instrument (2) measuring instruments. Treatment instrument is used only for the experimental group, while the measuring instrument to obtain data score prior knowledge in the two groups of samples. Treatment instrument is designed in two models, namely (1) caricatures humor and (2) anecdotes / short story humor. The examples of humor can be seen below:

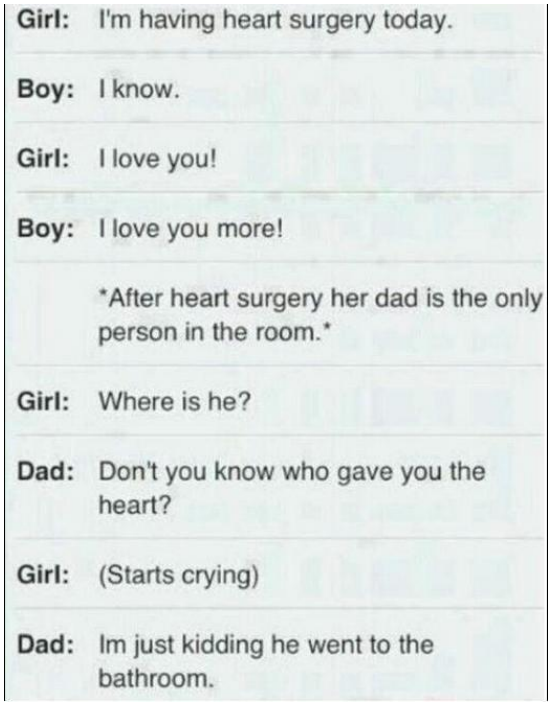



Figure 1: example of anecdote

A father buys a lie detector robot that slaps people when they lie. He decides to test it out at dinner one night. The father asks his son what he did that afternoon. The son says, "I did some schoolwork." The robot slaps the son. The son says, "Ok, Ok. I was at a friend's house watching movies." Dad asks, "What movie did you watch?" Son says, "Toy Story." The robot slaps the son. Son says, "Ok, Ok, we were watching porn." Dad says, "What? At your age I didn't even know what porn was." The robot slaps the father. Mom laughs and says, "Well, he certainly is your son." The robot slaps the mother.

Figure 2: example of anecdote

In this study, the writer used the essay test as instrument to collect the data. To assess the students' achievement, the witer used Harris'suggestion that is by placing the score in some categories (Harris: 1969).

**DISCUSSION**

The researcher held the try out test to 59 students who have the same grade, which are the fifth semester students to measure the validity and reliability of the questions. For the next step the experimental students and the controlled group students were given a pre test on October 28th 2015. There were five 5 questions related to pragmatics topics.

Before conducting the treatments for the experimental group, the researcher had prepared and arranged a teaching design using insertion of humor. The use of design eased the researcher in the process


ISBN: 978-602-74576-0-7

of teaching pragmatics using insertion of humor as the main goal in this research.

Post- test was conducted after treatment. Here for the experimental group, insertion of humor was used as aid in teaching pragmatics, for the controlled group, the explanation is used in teaching pragmatics. Post – test is conducted to measure the students' abilities after the treatment. First, of all the writer distributed the test papers to the students, He asked to the students to do test in 60 minutes. The data were obtained from the students' achievement of pragmatics in speech act, context, implicature, cooperative principle and politeness principle. In order to know the students' post test achievement in detail, the researcher used the following formula to find out the achievement of each items.

$$SSA = \frac{\sum OsC}{Stsc.S} \quad X\ 100\%$$

Ssa = student's achievement

Σ = number of obtained scores

Σ = number of students

The score of pragmatics post-test in the experimental and control group group are discussed here. The computation of the mean of experimental and control group is follows:

$$Me = \frac{\sum Xe}{N}$$

$$\frac{3046.21}{37} = 82.33$$

The mean score of the experimental group was 82.33

Where: Me : the mean score of the experimental group
Xe : the percentage score of the experimental group
N : the number of the subject sample

$$Mc = \frac{\sum Xc}{N}$$

$$\frac{2432.64}{32} = 76.06$$

The mean score of the control group was 76.06

Where
Mc : the mean score of the control group
Xc : the percentage score of the control group
N : the number of the subject sample

The mean score of the control group was 76.06

The result shows that the experimental group out-performed the control group. The difference between two means was 6.27. To see the difference between the experimental and control group in scores, t-test was used. After getting t-test result then the research consulted the critical value of the t – table to check whether the difference is significant or not. For $\alpha = 5\%$ and after the computation the researcher found that t-value (4.816) is higher that the critical value of the table (4.816 > 2.00). It is proven that there is significance of the difference between the experimental and control groups.

The aim of this research is to find out if there is significance of difference in improving the students' pragmatics score among the student who were taught by using humor as teaching aids and the students who were taught without using humor. In the pre- test, the average score of the score of the control group was and the experimental group was 69.4. Further, the result of the post test of the experimental group 82.33 is higher than the result of the control group 76.06. It indicates that after getting treatment, the experimental group achieved a better result than the control group.

## CONCLUSION

Based on the above results can be summarized as follows.

1. By looking at the learning outcomes of students who are taught pragmatics using humor insertion is


ISBN: 978-602-74576-0-7

more effective in improving student learning outcomes than conventional learning strategies.

2. The contribution of previous knowledge of the pragmatics learning outcomes in experimental group is higher than in the control group. Learning strategies with humor insertion can increase the contribution of the initial knowledge of the learning outcomes of students in the subject of pragmatics.

The results of this study demonstrate the effectiveness of learning strategies using insertion of humor in improving pragmatics learning outcomes. This study may be limited to the subject and / or a wider field of study. Implementation learning strategy by using insertion of humor also needs functioning of all components related theory. First, with regard to lecturers or teachers, learning strategies using humor insertion require a lecturer or teacher (as main component) having emotional intelligence are relatively better in order to support the creation of a pleasant atmosphere.

Second, it is understood that not all students enjoy insertion of humor provided by the lecturer in the form of caricature or short stories / anecdotes. For the minority of students who are not touched curiosity, then learning strategy is not fun for them. As a result, the thinking brain function was not optimal and information processing is not running properly, so that the achievement of learning outcomes is less than optimal. In this regard, lecturers/teachers' skills in designing instruments caricature and short stories / anecdotes and presentation needs to be a major concern.

The main demands of learning strategies by using insertion of humor are to create a pleasant atmosphere. The point is how lecturers or teachers to create a pleasant atmosphere through humorous skits and short stories / anecdotes humor during a strategic pause. The form and type of media used must be able to support the creation of a pleasant atmosphere. Therefore, the completeness of the media, the means and facilities to be used should be the concern of teachers before implementing learning strategies meant it.

First, the study was carried out with the student population of having certain characteristics, which may differ from the characteristics of other population; therefore, generalization of the results of this study should be done carefully. Furthermore, the tendency to see the results of more extensive research needs to be done further research in a larger population that has different characteristics.

Second, the lecturer's role in creating a fun learning is needed. In order to insert humor learning strategies can be applied properly, the lecturers or teachers suggested that increasing media capabilities in designing, implementing learning strategies, and understand the characteristics of students, so as to create a pleasant learning.

Third, this study did not study the psychological effects of the use of caricature and short stories / anecdotes in learning. Therefore, it is advisable to conduct further research, so it can be revealed the extent of the psychological effects can affect learning motivation will improve learning outcomes.

Fourth, caricatures and short stories / anecdotes used in this study are the forms that are not commonly used in everyday life and relatively few instruments that are directly related to pragmatics..

Fifth, based on other findings in this research, it was revealed that the caricature and short stories / anecdotes can improve students' achievement. It is advisable to conduct further research on the effect of humor on emotional intelligence.

**REFERENCES**

1. Apte, Mahadev L. 1985, *Humor and Laughter*, Ithaca:
Corenell University Press.


ISBN: 978-602-74576-0-7

2. Brotherton, P. 1996. "The Company that Play Together". *HR Magazine*, 41, 76-83.
3. Cooper, K., Robert, dan Sawaf, Ayman .1999. *Executive EQ - Kecerdasan Emosional dalam Kepemimpinan Organisasi*. Terjemahan Alex Trikuntjoro Widodo. Jakarta: Gramedia Pustaka Utama.
4. Danandjaja, James, 1989. *Humor, Ensiklopedia Nasional Indonesia, Jilid VI*. Jakarta: PT Cipta Adi Pustaka.
5. Departemen Pendidikan Nasional. 2008. *Kamus Besar Bahasa Indonesia.* Jakarta: PT Gramedia.
6. DePorter, Bobbi.,Reardon Mark.,Singer-Nouri, Sarah.1999. *Quantum Teaching.* Terjemahan Ary Nilandari. Bandung: Kaifa.
7. Diamond, Marian .1988. *Enriching Heredity*. New York: Macmillan Publishing Company.
8. Endharwani, Sari. 1994. "Kosakata dan Ungkapan Humor Srimulat". Skripsi. Depok: Fakultas Sastra Universitas Indonesia.
9. Flowers, J. 2001. "The Value of Humour in Technology Education" *Technology Teacher*, 60, 10-13. (http://www. tomveatch.com/else/humor/summary. html) diakses 20 September 2002.
10. Gagne M., Robert. 1986. *The Conditions of Learning and Theory of Instruction.* Tokyo : Holt-Saunders Japan.
11. Gardner, Howard.1985. *Frames of Mind: The Theory of Multiple Inteligences*. New York: Basic Book.
12. Rahmanandji, Didiek. 2009. "Sejarah, Teori, Jenis, dan Fungsi Humor". Medan: Universitas Sumatera Utara Press.
13. Raskin, Victor. 1994. *Semantic Mechanism of Humor*. Dordrecht: Reidel.
14. Rochamadi, Muhammad. 2010. "Strategi Penciptaan Humor dengan Pemanfaatan Aspek-Aspek Kebahasaan" dalam *Humaniora* Volume 22 No.3, Oktober 2010. Hlm. 285-298. Yogyakarta: Universitas Gadjah Mada.
15. Soedjatmiko, Wuri. 1992. "Aspek Linguistik dan Sosiokultural di dalam Humor" dalam Bambang Kaswanti Purwo (Ed.) PELLBA 5. Hlm. 69-87. Yogyakrta:Kanisius.
16. Wijana, I Dewa Putu. 2008. *Analisis Wacana Pragmatik*. Yogyakarta: Media Perkasa.
17. Wijana, I Dewa Putu. 1995. "Wacana Kartun dalam Bahasa Indonesia". Disertasi. FIB UGM. Tidak diterbitkan.


ISBN: 978-602-74576-0-7

# ENCOURAGING THE INNOVATION-BASED IMPROVEMENT OF TEACHING'S METHODS BY THE IMPLEMENTATION OF ENGINEERING WORKING SYSTEM FOR CONTINUOUS PROFESSIONAL DEVELOPMENT

**JEMIE MULIADI**

*The Agency for The Assessment and The Application of Technology (BPPT), Gd. 256 Lt.2 Kawasan Pupiptek, Serpong,*
*Tangerang Selatan, Banten, 15314, Indonesia*

**DELLA AFRILIONITA**

*The 4th Islamic Al-Azhar Senior High School (SMA Islam Al-Azhar 4),Jl. Kemang Pratama Raya, Bekasi, Jawa Barat, 17116, Indonesia*

**Abstract**

**School is an important society and place in transforming the way of thinking of our youth generations. From naturally childish and self-centered paradigm, the school can significantly direct our youth mental growth and social development to wiser person with good qualities in problem-solving. Undeniable, the results of teaching methods were highly depends on the schools characteristics, which uniquely varies. These variations exist due to the school location, the school environment, the local government policies, the cultural around it, etc. To innovatively improve the teaching methods to overcome this uniqueness, so the Engineering Working System will be proposed in this manuscript. The Engineering Working System implemented in a Work Breakdown Structure, on organizational diagram which defines clearly all the task, scope of work, responsibilities, time table and the target of the personnel in order to encourage the innovation in teaching methods. By applying the Engineering Working Systems, the clarity, the traceability, and the responsibility of the process will increase successful rate in generating the innovations. Also, the Engineering Working System itself were included the proper documentation of the process and the innovation resulted. From the database of innovation recorded in the school, the teacher can increase the teaching performance and the quality of the graduated students.**

## 1. Introduction

The Agency for the Assessment and the Application of Technology, abbreviated as BPPT, has introduced the *Engineering Work System* to promote the culture of innovation in all aspect of life [1]. But mistakenly, the term "engineering" were often perceived so narrow as creating electronic gadgets, buildings and constructions, even aircraft and factories. Actually, from the definition of engineering [2], the term itself refers to application of science and technology to innovatively creates systems, models, values, then products and the manufacturing process. From the practitioner's view, the term "engineering" were also be understood as the application of science for solving problem [3]. Thus, it will be relevant to implement the *Engineering Work System* in better methods of teaching, or to improve the effectiveness of teaching, by encouraging the innovation in teaching methods.

School is important society and environment in transforming the way of thinking of our youth generations. Even for disaster mitigation, Oktari et al. has recognize the importance role of school in building the community resilience [4]. From cities to villages, the community had put their faith on the school to grow their child knowledge and their ability

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

to solve problems. As an illustration, in 2014, Sadono et al. [5] describing that the villager of the Margolelo‡‡‡‡‡‡ were expecting that their children can earn qualified education in their only elementary school in the village. Thus, it is important to increase the quality of education, equally, in all of our school regardless of their location, tribes, province or varieties of the people.

In his exposition about children and their development, Kail recognized that school has significant influence to children, as resumed as follows [6]. School with academic emphasizing, safe and nurturing environment, having their pupils' and teachers' progress monitored and encourages parent involvement were likely drive the students for their achievement. The higher level of students' achievement even occurred when their teachers were effectively manage the classroom, responsible for the students' learning, having mastery to teach the material, well in material pace, having tutoring value and showing the children how to monitor their own learning.

With these expectations, it is crucial that the teachers were not only perfectly prepared before involved in teaching activity [7], but they must continuously having their professional development updated. From various ways and methods of teachers' professional development activities, this work will proposed the innovation-based improvement of teaching methods. Even though innovation often perceived as spontaneous process, this work will approach the innovation using a more systematic way. Such systematic approaching will be applied by implementing the *Engineering Work System* (EWS).

The following introductory sub-chapters will briefly describe the concept of *Engineering Work Systems*; the teachers' role and duty; the problem faced by the school then the teacher's professional development. Such inverted structures were compiled to briefly promote the *Engineering Work Systems* before deducing its relevant application for the teachers' continuous professional development.

‡‡‡‡‡‡ Margolelo is a village in Temanggung District, Central Java Province, Indonesia. There is only one elementary school in the village, i.e. the state's elementary school, SD Negeri Margolelo

**Engineering Work System**

According to [2] engineering is activity of implementing science and technology in the form of design and built up to yield system, model, value, or manufacturing process considering the fusion of point of view, technical concept, functionality, business, socio-cultural and esthetic in a functional work group. Applied in many field, engineering activities varied widely from aviation projects [8], data acquisition [9] to political institute [10]. It doesn't always relate with applied technology, nor modern gadgets, but engineering will obviously connect science and scientific method with innovation.

To perform the EWS, a functional engineering organization will be constructed [2]. Such organization will hierarchically managing the implementation of engineering activities in a team work. The organization will relate the activities with the field of expertise of the team work member. For the sake of simplification, this functional organization also known as *Work Breakdown Structure* (WBS).

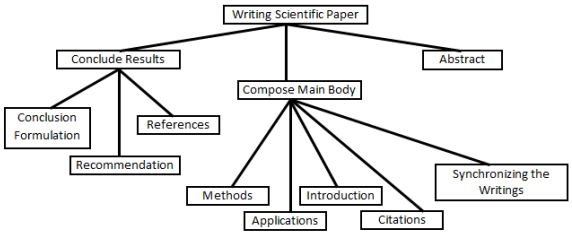



Figure 2. An illustrative example of WBS for simplified case in writing Scientific Paper

In Figure 2 a WBS is shown to illustrate the decomposition of work in writing scientific paper. The diagram weren't enhancing the scientific methods required, it only show the detailed work packages needed to write the paper. Thus, without getting to be


ISBN: 978-602-74576-0-7

technical, the *Work Breakdown Structure* (WBS) were defined as hierarchical list of tasks in a program to clearly stated the scope of work, so the needed effort, timeline and budget can be explained explicitly [11]. By decomposition of the scope of work into detailed work packages, WBS also used as a guidance for scheduling, estimating, monitoring and controlling activities of a program [3]. The WBS often indicated as a sign of EWS implementation.

There are several advantage in working in a functional engineering organization [2]. First, by implementing a well-defined WBS, the accountability of work will be also clearly defined. For each member of the team will be assign with clear and detailed task in a clear defined role. Second, the implementation of a well-defined WBS, will result in a good traceability in work completion process. Any problem occurred can be traced systematically for evaluating the performance or budget controlling. Third, it will provide the opportunity for systematic training and career development. Fourth, it will provide the information of the human resource that actually involved in the program.

Thus such functional engineering organization will have these characteristics [2]. First, it has to be non-permanent (*ad hoc*) only for specific program or activity. The organization will start at the program preparation phase and will be ended when the program were finish. Second, it will be performed by skilled personnel with their relevant field of expertise. Third, it will be run by a Program Director who's in charge to the formal chief of the work institution. Fourth, it has to be so flexible enough to allow structural change or personnel change to adapt the program needs.

### Teacher's Role and Duties

Preparing teachers, especially quality teachers preparations, has been seen as a global concern to eliminate social ills and building the nation [7]. This is a global issue, and the globalization itself has propagated urgent need for excellent service in the field of education. Although we always live in a diverse world, but the globalization has refocused that diversity much closer around us. It is no longer acceptable if too many children do not receive their right, including quality and caring education. Thus, professional teacher will be the nation's hope to help the children developed into informed, thinking, moral and empowered citizens [7]. For the globalization issue, the teachers were also required to be more active and transformative instead of just doing their minimal or being simply legal.

In [7], Goodwin and Lin has explored the diversity issues regarding to the new teacher's quality. Practicing their expertise in the plural society, has directed these new teachers to confront their fears, prejudices, and misconceptions to work professionally. So they must be skilled to recognize, understand and respond to a diverse student body. The teachers were also expected to be expert in democratic group processes to set the norms of cooperation, fairness, and equality in the classroom.

Aligned with the Indonesian Law for Teachers and Lecturers, the teacher were assigned with these roles, i.e. to be facilitator, motivator, trigger, learning engineer, and to be inspiration of learning to their student [12]. Also added, that in order to increase the quality of national education, these roles also applied i.e. to be informer, communicator, transformer, agents of change, innovator, counselor and administrator [13].

Responding to the reformation of education, in Indonesia, the student should be a subject in teaching process [14]. Instead of instructor, teacher has become the facilitator and also counselor. So teacher should practice the teaching process that effective, creative, innovative, dynamic in democratic environment.

### The Problems That the School Faced

In current times, the sociological changes occurred unprecedented and draw impact to the school and the teaching methodologies. Teachers and school are in no way to avoid these social transformations. While the population grows exponentially, its social effect becomes more complex and rapidly changed. Globally, the


ISBN: 978-602-74576-0-7

school has to face these problems of how to address and explore these important issues [7]. The social stratification also bring challenges to the school [15].

Besides the general issues previously introduced, researchers in education were also find specific problems that the school faced. For example, many studies has shown the student's low achievement in science and mathematics [16]. In this issue, several problems identified, e.g., little interest in science and learning science and decreasing motivation in science classes. One of the causes of the problem was the rare availability of innovative, contemporary and effective teaching materials. The rare availability of training course and long term professional development programs for teacher were also cause the problem.

These introductory expositions were not meant to explore the whole problems that were actually faced by the school. The information were provided as a background for the needs of innovation to overcome the old methods of teaching that become ineffective and inefficient. Another method proposed to encounter these "rare availability" issues is to engage the teacher in conducting applied research in everyday activity of their school. If the research were held in systematic manner and documentation, then the result should be equivalent with the training course.

## Teacher Professional Development

The teacher professional development were deduced in [17] as follows. Teacher is a profession in educating students. Although not limited to it, the education mostly concerned in the subject of science that teacher's taught of. Thus, since science always developed, then professional teachers are the teachers that have their competencies developed. The development might perform in the institutional or in individual manners, and both are continuously. The continuous professional development will result professional teacher and the conducive environment of school which smoothing the goals of our national education program [13].

Several needs that coincides into teacher professional development listed as follows [18]. The teachers need the time and opportunity in sharing experiences, their concerns and ideas with another teacher. They also need to reflect and study their practices, examining theories and beliefs connected to their practice. So, it will be important for them to assess new methods and strategies and rethink their theoretical bases using another's findings.

The teachers competencies recognized in the teacher professional development were personal competency, competency in subject of teaching and competency in teaching or educating. To be professional in these competencies will transform the verbal and oratory teacher into dynamic educator in creating invitation learning environmental [13].

## Current Methods in Teacher Professional Development

The common method of the teacher professional development were pursuing master degree, courses and training, using journals, seminars and cooperation between professional institutions. These conventional method identified in Borang [14], Thalib [19], .These conventional methods restricted to several limitations e.g. it could consumed high cost and might be subject to queue to the availability of opportunity provided by the school.

By enhancing scientific culture among the teachers, Ismanto [12] and Asmarani [20] has proposed the professional development by publication of teacher's scientific research. Although it seemed easy to be write, but it not easy to find topics of research. Unavailability or incompleteness of documentation of teaching activity might restrict the validity of research. There were less time for non-teaching activity which not supportive in conducting research.

Using socio-humanity approach, Syahrul proposed the professional development based moral and culture [13]. Although the method were relevant with the sociological problems, social transformation challenges and social stratification challenges, faced by the teachers, but several issues will be showed up


ISBN: 978-602-74576-0-7

in the implementation. The methods weren't explained how to measure the process, nor the parameter of success, nor the detailed step in the implementation.

**Inhibitors to the Teachers Professionalism**

Syahrul in [13] has identified several factors that inhibit the teacher professionalism. These factor falls into two categories, the internal factor and the external factor.

Internally, the inhibitors that originate from the teachers themselves come from being too conservative, lack of motivation in developing their competencies and the unwillingness to update their knowledge with the current progress of science and technology [13]. In being over-conservative, teachers saw new methods of teaching as a disturbance to their stable work pattern. The new methods were often seen as an extra workload instead of effort in solving their problems. Lack of motivation to develop teachers' competencies emerged from performing their job partly. Teachers were taking part-time job outside of their profession. Teachers were also having lack of opportunity in reading and writing to develop themselves. Not like their colleague educator, i.e. the lecturer, teachers weren't expected to do research. Thus they become unenthusiastic in having their knowledge broaden. These internal factors can be resolved if the professional development program can be implemented in integrated manners with the school daily activities.

On the other side, the external inhibitor appeared variously, from the limited facilities and infrastructures, a few colleges that graduates low-quality teachers, to the lack of standardization of teaching profession [21]. Contrary, if the teacher still being too conservative in their mind, then completeness of teaching facilities and infrastructures will not improve the teaching quality. Few colleges graduates low-quality teachers without consider their outputs and their impact to the fields of education, e.g. there are teachers who disobey the professional ethics of teaching [13]. By design continuous professional development activities that can systematically create innovative culture in the school environment, can become an alternative to answer these external factors of inhibitors. The decrement for the quality of teacher profession and science of education were the result of discontinuity between pre-service and in-service program because of inflexible bureaucratic consideration and the weakness of education management [21]. To bridging this discontinuity, the professional development activities can be directed to bring research activities into school daily life.

**Motives in Teacher Professional Development**

Guided by the Law of National Education System, teacher will be recognized as the agents of learning with necessities in the professional competencies, pedagogic competencies, personality competencies and social competencies. Thus, according to Law of Teacher and Lecturer, they will also need to gain proficiency, skills and expertise to fulfil the required standard of quality, which required the professional development [13].

The implementation of public accountability in teacher profession required competency test to justify the professional eligibility criterion. As an effort to increase the quality of education, this implementation will standardize the teachers' minimum competencies. Requirements to be a professional teacher, includes strong knowledge in their field of teaching, mastering the professional techniques of teaching from research and practice in education and performing continuous professional development. Thus, it will nurture high moral of culture and grow the teachers' creativity in raising qualified, innovative, skilled, independent, and liable educators [13].

The increment of the level professional development will enhance the teachers' emotional intelligence, thus it will increase their professionalism in teaching [19]. Integrated with their daily work, teacher can implement classroom activity based


ISBN: 978-602-74576-0-7

research to increase their professionalism [22]. These findings supports that the teacher professional development can also be perform inside the classroom.

Another motive in professional development might come from the necessity of the state teacher rank IVc to be promoted to IVd. In this rank promotion, teacher required to submit 5 credit point of self-development activities, and 14 credit point of scientific publication and/or innovative invention.

### Culture of Innovation and Engineering Working System

Innovation often perceived as a spontaneous phenomenon, thus, in this perception, the concept of initiating or measuring or quantifying the innovation was losing their relevancies. But is that true? Responding to this question, Idochi in [21] describes the seven lesson for teacher in learning to have innovative attitude, as they also willing to perform innovation. Those are, learning to be creative, learning like the butterflies, learning the beauty of the world and the remarkable of being educator, learning from simple and concrete things, learning from the cycle of life, learning to have coordination with the professionals, and the last is learning to express their selves with the unity of their mind. So, innovation comes from learning, as learning is quantified, then the process itself can be measurable.

### Creativity

Learning to be creative is one way to become innovative. Then what is creativity? In the popular meaning, creativity were considered as something that we have and when we having it, it reveals itself spontaneously and inexplicably [23]. So, what counts as creativity will be dependable on the context, i.e. art, science or history. The attempts to note such creativity were vague, narrow and flawed notion. In the other hand, creative situation is not constant, and some novelties weren't count as subject specific creativity. So, generally, creativity needs to be bounded in certain specification and lies in certain understandings.

Can creativity be measured? The following explanation will answer the question that creativity can be measured. Much of confusing in this measurement caused by the insufficient clarity of its definition, the suggestion in improving the assessment, and the new possibilities of investigation tools. Thus, by showing three dimension of creativity, i.e. novelty, appropriateness and impact, then a framework can be constitute to measure the creativity inside [24]. Since the engineering concepts always deal with the measurement, then the Engineering Work System will be a powerful framework in measuring creativity.

Besides of its measurability, creativity was also subject of hierarchical activities. Especially in problem solving, the creativity can be induced from leaders to their subordinates [25]. The creativity in leaders and employees will influence an organization to be more flexible and innovative [26]. The pattern of this “directed creativity” started with the guidance from problem-solving processes. Then reviews were conduct to the factors that probably affect the cognitive processes that engaged in problem solving creatively. Finally the leaders’ ways in helping to encourage these processes to their subordinates.

The significances of innovation and creativity in the teachers’ professional development were described as follows. Teachers should perform their work not only to fulfil the minimum achievements, but they should also concerned to attained the maximum accomplishment of their professional work [13]. Initiated by such concern, then the innovative attitude will come up as indicated by the affinity to continually improve their achievements in professional teaching. The improvement will also enable the increment working scope and raise its responsibilities.

### The Engineering Functional Organization and the Work Breakdown Structure

The personnel in the Engineering Working System will be hierarchically organized in an Engineering


ISBN: 978-602-74576-0-7

Functional Organization (EFO). EFO is a working organization that hierarchically designed to accommodate the engineering deeds arranged in teamwork to form a matrix between fields of expertise with the phase of the activity [2]. This organization will clearly defined the role and task of the engineers in working structures that distributed in several allocations according to expertise or the variation of activity phase. The working structures were well-known as the Working Breakdown Structure (WBS). Each WBS will be divided into two Work Packages (WP) or more, while each WP required two staff or more.

The Work Breakdown Structure (WBS) a list of task which constructed top-down to defined the scope of work, so the effort, timeline and budget can be detailed [11]. It is a structured decomposition of the scope of the work into undivided work package, so it can be scheduled, estimated, monitored and controlled [3]. The division must produce the enumeration of all work activities with hierarchic composition of smallest manageable activities with input, output and assigned responsibilities which quantified for organizing the work completion [27].

The advantages of WBS implementation is the clarity of project-work as a whole, the concept of plan and control of the work-progress, the proper assignment of the manpower and other resources, and the aided in progress reviewing [27]. As the project executed, the flexibility of WBS will allow the specific section to be tracked in identifying the project cost performance, issues and problem areas in the project organization [28].

There are many types of WBS [3], i.e. product based WBS, activity based WBS, zone based WBS, functional based WBS, geographical based WBS, systems based WBS, resources or risk based WBS, contract based WBS, etc. These types were advanced for diverse application of WBS, such as in software engineering [29], architect and construction [30], enterprise resolution planning [27], research and development [2] etc. For any type to be chosen, the multilevel framework that organizes the work to be accomplished must be connected in logical relationship [28].

Although it might be complex, a project will be easier to be managed using WBS begin with decomposing it into individual smaller elements in a hierarchical structure [27]. This decomposition was meant to define the tasks that can be finalized freely of the others, distributing available resource, scope of responsibilities, also the project's measurement and control. To represent the WBS, organization practice their own terms to categorizing the components of the hierarchy. Several organization using task, sub task, and work package, while some other using term phases, entries and activities.

**The C-type Engineering Functional Organization**

The Indonesian state engineers worked in BPPT recognize the Engineering Functional Organization (EFO) in 3 types. First the A type EFO, which contain of 5 WBS of more and involving external institution, then the B type, that constitute at least two engineering activity phase or different expertise and may cooperated with external institution. The last type is the WBS type that considered being proper to implement in this paper i.e. the C type EFO.

The C-type EFO consist of only one WBS, which decomposed at least into two WP [2]. This WBS will be led by a Group Leader (GL) which acts as the program director and as the chief engineer also. As a program director, the GL performs these roles, such as, holding responsibility of the program accomplishment, guides the activity outlines and the state of the art etc. As a chief engineer, the GL performs these roles, such as, holding responsibility for technical aspect of the program result, responsible for the man power and the program facilities. In carrying these responsibilities, the GL will be assisted by a Program Manager (PM) who's responsible for funding and the scheduling of the programs completion.


ISBN: 978-602-74576-0-7

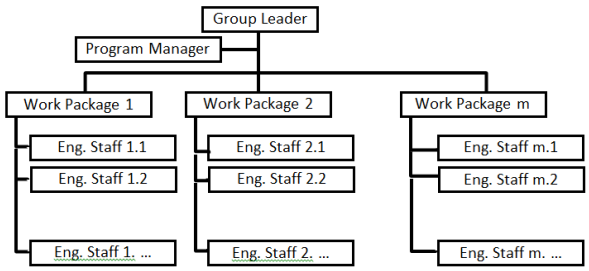



Figure 3. The C-Type Engineering Functional Organization

As illustrated in Figure 3, each Work Package (WP) will be directed by a Leader (L). Each Leader supervised at least two Engineering Staff (ES) which completing their task relevant to each competencies inside the field of expertise of the defined WP. The controlling mechanism will be achieved by using written documentation from the information system and reporting system of the EFO.

## The Information and Reporting System in Engineering Functional Organization

The documentation in the EFO derived as an effort to gain the advantages, i.e. the clarity of accountability and the systematic traceability. By writing technical documentation, the innovation occurred can be recorded, studied, analyzed, measured and interpreted. The technical documentation were serving as information system and reporting system in the EFO. Reference [2] describes these reports and documents comprehensive and completely.

The Information System is a flow of written documents of instruction and working records. These information systems documents covered Working Sheets (WS), Instruction Sheet (IS), and Decision Sheet (DS).

The Reporting System consists of manual, notes and reports of the program outputs. These reporting documents were including Program Manual, Technical Notes (TN), Technical Report (TR), Progress Control & Monitoring (PCM), Technical Document (TD) and Program Document. Engineering design can be understood as activities to deliver engineering documents for a basis of program implementation [3].

### Working Sheet

The Working Sheet (WS) is a form which explains the work of the EFO team member in a written statement. Each member from ES, L and GL will record their relevant activities in the WS for every certain period of time, i.e. daily or weekly.

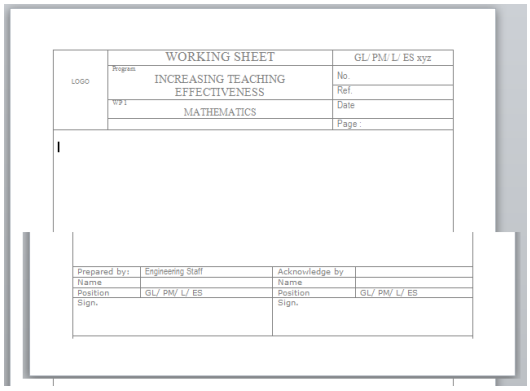



Figure 4. The Working Sheet Sample Form

The Working Sheet wasn't meant to present detailed things of the engineering result. The detailed results should be written in the Technical Notes, Technical Reports or Program Documents.

### Instruction Sheet

The Instruction Sheet (IS) is a form which ordered act of engineering with the brief explanation about the ways, method or technique in completing such task. The IS could be given from GL to PM, GL to L, and L to ES.


ISBN: 978-602-74576-0-7

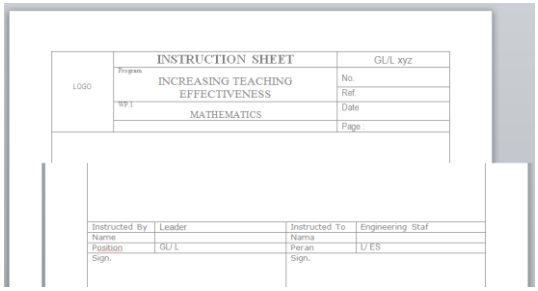



Figure 5. The Instruction Sheet Sample Form

The Instruction Sheet does not contain detailed things. The detailed explanation should be included, then it will be placed on separated attachment.

**Decision Sheet**

The Decision Sheet (DS) is a form which stated and explained in general results of the meeting in the level of WP, or in the program level. DS will be attached with the list of attendance.

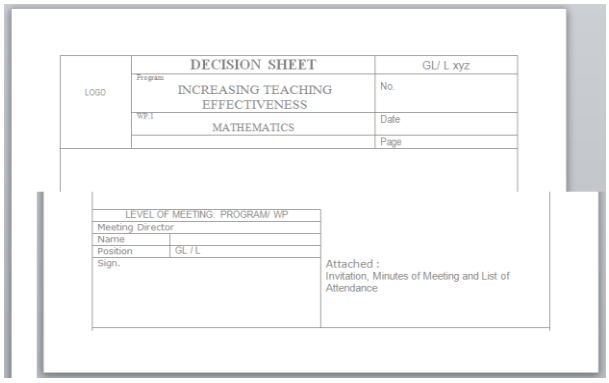



Figure 6. The Decision Sheet Sample Form

The Decision Sheet will become the reference for GL and L in issuing their Instruction Sheets. The items listed in the DS will also be the guidance in monitoring and assessing the technical document produced in the EFO.

**Program Manual**

The program activity will be design referred to the clear guidelines that defined in the Program Manual document which issued in the beginning of the program interval. The Program Manual serves as a handbook of the program.

The format of the Program Manual, should contain important guidance such as, program objectives, state of the art of the program (or research), the Work Breakdown Structure (WBS), the Engineering Functional Organization (EFO), man power planning, program master phasing plan, program scheduling, financial planning and reporting system. Signed by the GL, the manual must also checked by the PM and authorized by both GL and PM signatures.

**Technical Notes**

In the implementation of the program, the personnel involved will report their accomplishment regularly in a certain interval. The reporting system delivered gradually by TN written by ES, TR written by L, PCM written by PM and Program Document written by GL.

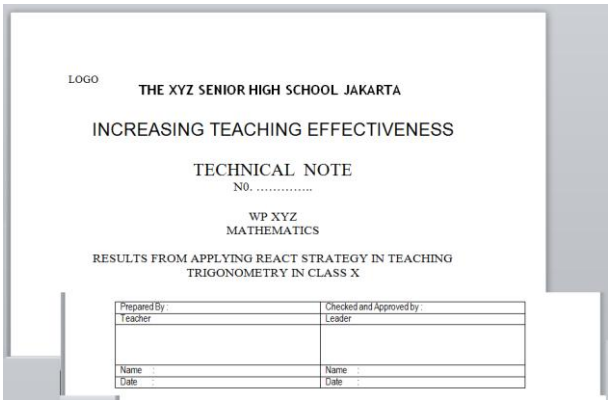



Figure 7. The Technical Note Sample Form

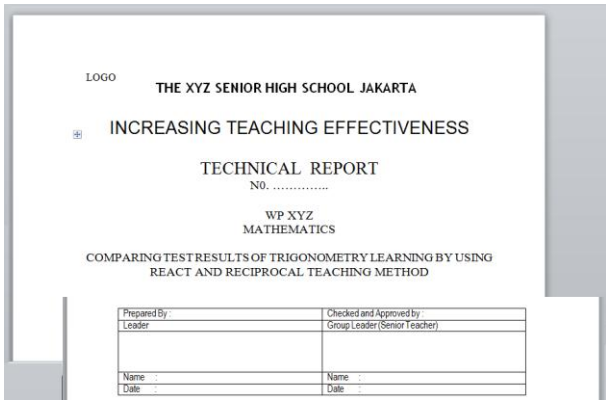
The Technical Notes (TN) is a documented form of a subject which applied in the related Work Package (WP). The TN covers specific notes about


ISBN: 978-602-74576-0-7

technical activities and technical results or findings from the Engineering Staff (ES). Consist of 2 to 4 pages of report, TN were contained the "activity and result" section and references section. After prepared by the ES, the TN should undergo checking and approval process, then both signature of ES and L will authorize their TN issue. Regularly TN can be issued for every 2 weeks.

### Technical Report

The Technical Report (TR) serves as a documentation of the Leader's Work Package (WP) activities. The TR presents the Leader's analysis and compilation of several TN in the WP.



LOGO

THE XYZ SENIOR HIGH SCHOOL JAKARTA

INCREASING TEACHING EFFECTIVENESS

TECHNICAL REPORT

N0. .....

WP XYZ

MATHEMATICS

COMPARING TEST RESULTS OF TRIGONOMETRY LEARNING BY USING REACT AND RECIPROCAL TEACHING METHOD

| Prepared By : | Checked and Approved by : |
|---|---|
| Leader | Group Leader (Senior Teacher) |
| Name : | Name : |
| Date : | Date : |

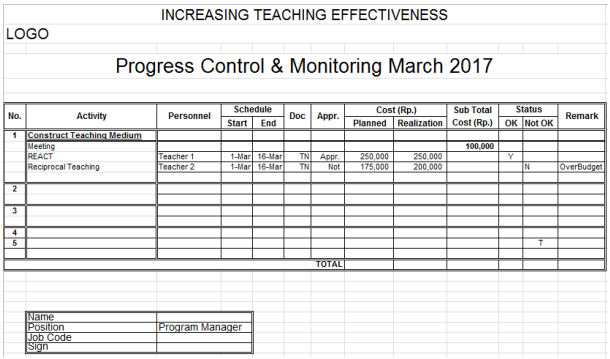
Figure 8. The Technical Report Sample Form

Consist of 10 to 20 pages of report, TR were covering several sections i.e., introduction, objectives, the WP activities, results and discussions, recommendation, the completed by references. Obviously, the TN of the ES will serve as the references for the TR. After prepared by the L, the TR should undergo checking and approval process, then both signature of L and GL will authorize their TR issue. Regularly TR can be issued for every month.

### Progress Control & Monitoring Document

Progress Control & Monitoring (PCM) is a document prepared by Program Manager that reports the results of monitoring and controlling the course of the program according to the schedule and its financial aspect. Similar to the TN and TR issuing, the PCM reporting also issued in each program phase review.

These reviews serve as supervision for the program direction. Based on these reports the program can be adjusted to adapt any changes and ensure the proper achievement of program objectives on time



INCREASING TEACHING EFFECTIVENESS

LOGO

Progress Control & Monitoring March 2017

| No. | Activity | Personnel | Schedule | | Doc | Appr. | Cost (Rp.) | | Sub Total Cost (Rp.) | Status | | Remark |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Start | End | | | Planned | Realization | | OK | Not OK | |
| 1 | Construct Teaching Medium | | | | | | | | | | | |
| | Meeting | | | | | | | | 100,000 | | | |
| | REACT | Teacher 1 | 1-Mar | 16-Mar | TN | Appr. | 250,000 | 250,000 | | Y | | |
| | Reciprocal Teaching | Teacher 2 | 1-Mar | 16-Mar | TN | Not | 175,000 | 200,000 | | | N | OverBudget |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | T | |
| | | | | | | TOTAL | | | | | | |

| Name | |
|---|---|
| Position | Program Manager |
| Job Code | |
| Sign | |

Figure 9. The PCM Sample Form

The PCM consist of, activity and financial planning section, current budget usage section, and conclusion section. Consist of 5 to 10 pages of report, PCM should undergo checking and approval process, then both signature of PM and GL will authorize their PCM issue. Regularly PCM can be issued for every 3 months.

### Technical Document

The Technical Document (TD) serves as a documentation of the GL activities. The TD presents the GL's analysis and compilation of several TR in the program.

Consist of 40 to 60 pages of report, TD were covering several sections i.e., introduction, objectives, the program activities, results and discussions, recommendation, the completed by references. Obviously, the TR of the Leaders will serve as the references for the TD. Regularly TD can be issued for every 3 month


ISBN: 978-602-74576-0-7

**Program Document**

Before the program finished in the end of the year, an official document that presented the overall results, product quality, budgeting and on time accomplishment. Such report will be delivered in Program Document.

The Program Document presents the final results of the program. The document resumes the analysis of all TD issued. Written in more than 100 pages, Program Document were covering several sections i.e., introduction, abstract, objectives of the report, the program activities, results and discussions, recommendation, the completed by references. Obviously, the TD and PCM will serve as the references for the Program Document.

**Implementation of Engineering Work System for Teacher Professional Development**

In the previous sections, the Engineering Working System (EWS) has presented and the teacher professional development has been discussed. Thus, in this section both of the subjects will be related in the implementation of EWS in teaching activities.

**Design the Program in Relevant Topic of Research**

School, or the class—in the micro scale—provides the source of education problem to be researched, and also effective for activity research [12]. Thus, the topic of the research can be determined from the daily class problems.

Designing the research for implementing the teacher development program may be approach by several of methods. In general point of view, the design consists of these steps as follows [3]. First, the problem and its constrains should be clearly defined, then the second, the potential solution must be generated. The brainstorming method can be applied to identified such potential solution. Third, designer should develop adequate detail to compare the previous solution or omitting it if necessary. Fourth, or the last step, is implementing the preferred solution in the Program Manual, including the EFO, scheduling and budgeting.

Different methods also arise from text-book approach. The method decompose the design process into these stages [3]. Stage one is defining what the problem is. Stage two is synthesizing the process. Stage three is the process design. Stage four, is the process analysis. In process synthesis stage, multiple solution are generated then sorted or discarded. The stage's result are smaller number of favorable solution chosen to be analyzed in detail. While in the process design stage, one or two most satisfactory solutions will be developed into details to perform reasonable scheduling and available budgeting and human resource planning. In this stage, critical issues, constraint, relevant policies, etc., will be assessed so their risk will be well understood. Finally in the process analysis stage, the optimization process will be held.

The result of program design will be inputted to is the Program Manual. Serves as the program handbook, the manual will include the relevant information of the Program.

**Creating C-Type Engineering Functional Organization**

The C-Type Engineering Functional Organization (EFO) consist of only one WBS, which decomposed at least into two WP [2]. Hence, it required smaller number personnel in completing a certain program.

The students are unique persons, each with dynamic of characters and should be treated in the professional manner. This professionalism included the code of conduct and ethical issues that might be changed or completed differently according to the time and location. These constraints aren't easy for new teacher to be comprehensively understood. Thus, the direction from senior and experienced teacher will become suitable guidance for the younger or inexperienced teacher.

The C-Type EFO accommodates this concept of "directed innovation" or "supervised research" for the


ISBN: 978-602-74576-0-7

teacher in doing research with their students. The senior or experienced teacher can filled the position of GL or PM, while the younger teacher may be appointed as Leader for a certain WP. So, the new or inexperienced teacher can filled the junior researcher position, or ES in the C-Type EFO. When desired, such in research activity without budgetary requirement or having less constrain in scheduling, a simplification can be made by omitting the PM position from the EFO.

Another advantage may obtain in applying EFO. For the Classroom Action Research, the C-Type EFO offers more degree of objectivity. The objectivity achievement were because the Classroom Action Research can be conducted by separating the teacher whose only perform teaching and other teachers in the team whose might serving as observers.

In implementing the C-Type EFO, all the documentation will be recorded in written notes, sheets, reports and manuals. Hence the result of the research should be well recorded in the TN, TR, TD and Program Document. These technical documents will function as systematic references which be valid for writing scientific publication in the future.

**Networking and Producing Scientific Publications**

In teacher's professional development, networking becomes important aspect. Most of networking happens in the informal communities with many benefits involved. Some of these informal communities were identified as the "online communities" [31]. To support the professional development, an idea arises to formalizing these online discussions by implementing the acceptable new method of teaching in the EFO of research in the school.

Marcia in [31] review the informal online communities and networks as a source of teacher professional development. Empowered by the social media advances, these communities or network grows on the teachers' needs to learn and adapting in the social changes. The openness and colleagueship has made such informality turn into preferable alternatives in gaining new method or new perspectives in teaching. These opportunities also viewed as chances to help peer teacher to think about their daily practice by share their own experiences in contributing to the question posed by other teacher. Furthermore, by writing such experiences, it was considered as the creating of the new understanding.

As previously explained, since unplanned research already taken places in various informal communities and networks, an idea emerged to tailor these pieces of informal research into formal implementation in a research program. The random findings can be arranged into directed innovation in the supervision of more experienced teacher in the formal EFO. The unstructured notes of writings in the online forum or email's conversation can also be reformatted and formalized into technical documentation i.e., TN, TR, TD, and Program Document.

Together with similar evidence, these technical documentations will serve as scientific records. The innovation occurred and tested in the program also can be analyzed and measured. This analysis can stimulate scientific writings into scientific papers to be published. As a part of professionalism development, this publication will initiates further analysis or share the new methods discovered from the research program,

**Implement the Result**

Regardless of the publication or restricted policy of the innovation discovered in the research program, the program results, especially the findings revealed must be well documented in the Program Document. The TD, TR and TN issued were act as proof of the innovation origin or creation.

The innovation concluded in Program Document should undergo advanced proses to be standardized into a new teaching method. Obviously, from the technical documentation issued, the effectiveness and the efficiency improvement can be measured. Hence, a more realistic target can be determined in the teaching activity to increase the school performance. The standardized document can be manuals or


ISBN: 978-602-74576-0-7

procedures in teaching certain subjects or special treatment to the students for a certain conditions.

## Concluding Remark

### Conclusion

The description of the proposed method has emphasized the role of Engineering Working System (EWS) in the improvement of the teaching method. These improvement resulted from the innovations emerged in a research program that embedded in the daily teaching activity in school. The innovations were stimulated, tested, measured and documented in the technical documents.

By implementing the Engineering Working System, the professional development for teacher can be performed continuously to overcome several common restrictions. These restrictions included the waiting time in applying Master Degree scholarship, the limitation for chances in professional courses or training, etc. Implementation of EWS in improving the teaching method will bring innovative culture which maximize the potential of the school to discover their ability instead of passively waiting new method being taught by external experts.

### Recommendations

This manuscript has describes the proposed method in the improvement of teaching method and in the professional development for teachers. Future work can be implemented by applying this method in the controlled environment of school.

Any new method will encounter potential rejection if it weren't properly and comprehensively understood. Usually, by simulating such methods using reasonable manner, the curiosity can be answered for building openness atmosphere. Hence, such relevant simulation can be held as continuation of this work.

## References


1. BPPT. *BPPT Chairman: Technology Innovation for the Nations Competence and Self-Sufficiency (in Indonesian)*. The Public Information Service (in Indonesian) [Article] 2014 September 05th 2014 [cited 2016; Available from: http://www.bppt.go.id/layanan-informasi-publik/2046-kepala-bppt-inovasi-teknologi-untuk-daya-saing-dan-kemandirian-bangsa.
2. BPPT, *The Technical Guidance for State Employed Engineer and Its Credit Points (PerKa BPPT No 105/2013, in Indonesian)*. 2013, Jakarta: BPPT.
3. Wain, Y.A., *Implementation of 3-Dimensional Work Breakdown Structure in Engineering Design.* PM World Journal, 2015. **IV**(5).
4. Oktari, R.S., et al., *A conceptual model of a school–community collaborative network in enhancing coastal community resilience in Banda Aceh, Indonesia.* International Journal of Disaster Risk Reduction, 2015. **12**: p. 300-310.
5. Sadono, T., B. Ismanto, and A. Sadjiarto, *The Strategy to Increase the School Quality Based on Fishbone Analysis Method in the State Elementary School of Margolelo, Kandangan, Temanggung (in Indonesian)*, in *Professional Development of Teacher and Lecturer by Writing Scientific Journal of Education (in Indonesian)*, A.N.C. Saputro and Winarno, Editors. 2014, Pelangi Press: Surakarta, Indonesia. p. 106-120.
6. Kail, R.V., *Children and Their Development*. 2011, Prentice Hall PTR. p. 499-503.



ISBN: 978-602-74576-0-7

7. Goodwin, A.L. and C. Kosnik, *Quality teacher educators = quality teachers? Conceptualizing essential domains of knowledge for those who teach teachers.* Teacher Development, 2013. **17**(3): p. 334-346.

8. Flouris, T.G. and D. Lock, *Managing Aviation Projects from Concept to Completion*. 2016, Farnham, GB: Routledge.

9. Pane, I.Z., *Design and Engineering of Information System Software to Support the Testing Activity in the Indonesian Low Speed Wind Tunnel (in Indonesian)*. 2015, ULTIMATICS UMN. p. 55-63.

10. Ziegenhain, P., *Institutional Engineering and Political Accountability in Indonesia, Thailand and the Philippines*. 2015: Institute of Southeast Asian Studies.

11. Lee, J., et al., *Integrating process and work breakdown structure with design structure matrix.* simulation, 2010. **7**: p. 8.

12. Ismanto, B., *Building the Scientific Culture of Teacher by Scientific Research and Publication (in Indonesian)*, in *"Pengembangan Profesi Guru dan Dosen Melalui Penulisan Jurnal Ilmiah Pendidikan*, A.N.C. Saputro and Winarno, Editors. 2014, Pelangi Press: Surakarta, Indonesia. p. 309-314.

13. Syahrul, *The Moral and Cultural based of the Teacher's Profession and Competencies Development (in Indonesian).* Journal of Educative Medium for Educational Technology and Vocation (in Indonesian), 2009. **1**(1).

14. Borang, D.S., *Increasing the Profesionalism and Competence of the Vocational High School Teacher's in the Certification Era (in Indonesian)*. 2012.

15. Hemphill, M.A., *Inhibitors to Responsibility-Based Professional Development With In-Service Teachers.* Physical Educator, 2015. **72**: p. 288-306.

16. Kapanadze, M., et al., *Enhancing Science Teachers' Continuous Professional Development in the Field of Iinquiry Based Science Education.* Journal of Baltic Science Education, 2015. **14**(2): p. 254-266.

17. Hendri, E., *Teacher with Quality: Professional and Emotionally Intelligent (in Indonesian).* Journal of Teacher's Activity Media and Excellence (in Indonesian), 2010. **1**(2): p. 1-11.

18. Tait-McCutcheon, S. and M. Drake, *If the jacket fits: A metaphor for teacher professional learning and development.* Teaching and Teacher Education, 2016. **55**: p. 1-12.

19. Thalib, M.M., *Professional Development, Emotional Intelligence and Professional Attitude of the Elementary School (in Indonesian).* Journal of Elementary School of Education (in Indonesian), 2012. **1**(1).

20. Asmarani, N.a., *Improving the Professional Competense of Elementary School's Teacher (in Indonesian).* Journal of Educational Administration (in Indonesian), 2014. **2**(1): p. 503-510.

21. Mustofa, *Developing the Indonesian Teacher's Profesionalism (in Indonesian).* Journal of Economy and Education (in Indonesian), 2007. **4**(1): p. 76-88.


ISBN: 978-602-74576-0-7

22. Egar, N., *Teacher's Profesionalism Development by Competence Improvement Comprehensively (in Indonesian)*, in *Theacher's Professionalism in Global Perspective (in Indonesian)*. 2012, LPPM Universitas Veteran Bangun Nusantara Sukoharjo: Sukoharjo, Indonesia. p. 23-30.

23. Newton, D.P., *Moods, emotions and creative thinking: A framework for teaching.* Thinking Skills and Creativity, 2013. **8**: p. 34-44.

24. Piffer, D., *Can creativity be measured? An attempt to clarify the notion of creativity and general directions for future research.* Thinking Skills and Creativity, 2012. **7**(3): p. 258-264.

25. Reiter-Palmon, R. and J.J. Illies, *Leadership and creativity: Understanding leadership from a creative problem-solving perspective.* The Leadership Quarterly, 2004. **15**(1): p. 55-77.

26. Mumford, M.D., et al., *Leading creative people: Orchestrating expertise and relationships.* The Leadership Quarterly, 2002. **13**(6): p. 705-750.

27. Momoh, A., R. Roy, and E. Shehab, *A work breakdown structure for implementing and costing an ERP project.* Communications of the IBIMA, 2008. **6**(15): p. 94-103.

28. Devi, T.R. and V.S. Reddy, *Work breakdown structure of the project.* Int J Eng Res Appl, 2012. **2**(2): p. 683-686.

29. Hans, R.T., *Work Breakdown Structure: A Tool for Software Project Scope Verification.* arXiv preprint arXiv:1308.2876, 2013.

30. Chattopadhyay, S. and J. Mo, *Modelling a global EPCM (engineering, procurement and construction management) enterprise.* International Journal of Engineering Business Management, 2010. **2**(1): p. 1-8.

31. Macià, M. and I. García, *Informal online communities and networks as a source of teacher professional development: A review.* Teaching and Teacher Education, 2016. **55**: p. 291-307.


ISBN: 978-602-74576-0-7

# MANAGING INDONESIAN TEACHERS PROFESSIONAL DEVELOPMENT TO SUPPORT CURRICULUM IMPLEMENTATION

Hazairin Eko Prasetyo
Universitas Sarjanawiyata Tamansiswa Yogyakarta

**Abstract**

The history of Indonesian formal education curriculum is as old as that of the country itself. However, the term "professional teacher" has not been legally introduced until the end of 2005 when the House of Representatives accepted the Law number 14/2005 about teachers and lecturers. The implementation of the law marked a new era in the government's endless efforts to enhance comprehensively planned and nationally organized teachers professional development. Numerous studies and researches in teacher professional development have been held in Indonesia and in other countries. Approaches, methods, strategies, and techniques have been invented and implemented to train teachers to perform better in their day to day interactions with their pupils. However, there are still questions about the contribution of teacher professional development on the success of a curriculum implementation. Therefore, in order to be able to find out how teachers professional development contributes significantly to the implementation of a curriculum, the question to be addressed in this paper is "How can professional development among Indonesian teachers be managed comprehensively to support the implementation of a curriculum?" The discussion of such a question is important to provide some alternative thoughts the government might possibly take into consideration when trying to decide which approaches and methods of teacher professional development they wish to carry out.

Keywords: teacher professional development, whole-school approach, lesson study

## Introduction

When asked such a question like "How much money do you spend for your own professional development in a month?" most Indonesian teachers would answer the question with "Not much." This shows how professional development among the teachers needs to be improved from time to time. DeMonte (2013, p. 4), for instance, noted a number of practical weaknesses in the teachers' professional development program as follows,

a. In general, the program is designed by government agencies or other supporting bodies whose targets are beyond the needs of the teachers to improve their teaching practice,

b. The topics of the training sessions are usually too general and have nothing to do with the ongoing curriculum or provide no solutions for "specific instructional problems" the teachers have in real life situations, and

c. The program is very frequently project-based, a discontinued "one-shot event" or is organized by external institutions that do not return for follow up plans.

Therefore, as reported by Wei, et al. (2010), even in a developed country like the United States, serious problems in organizing teachers' professional development are still there. Opportunities for school teachers in that big country for a well-planned, continuous collaborative professional development that results in necessary "changes in teaching practice and student outcomes" are provided by both local and district authorities, but the quantity and frequency are too small compared to the total number of teachers. Unfortunately, the opportunities for such professional development in the United States are more limited when compared to other developed countries.

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

However, the awareness among teachers and education management staff at all levels has been improving from time to time due to the growing needs of international communities for better and more reliable school graduates. In response to such awareness, professional development plays a very strategic function in adapting to the newer dynamics of society, for example, some professional communities start using standards in setting up minimum requirements for various quality services through accreditation procedures. Therefore, according to Blandford the professional development among teachers "for the raising of standards is now recognised by theorists, policy-makers and practitioners" (2000, 2).

However, in Indonesian context, there are still questions about the contribution of teacher professional development on the success of a curriculum implementation. Therefore, in order to be able to find out how teachers professional development contributes significantly to the implementation of a curriculum, the question to be addressed in this paper is "How can professional development among Indonesian teachers be managed comprehensively to support the curriculum implementation?"

Analysis

In performing their professions both inside and outside the classrooms, teachers also function as managers of educational processes involving other people including the students, school principals, administrative staff, inspectors, officials of education agencies, and parents. They also utilise operational elements like human, financial and material resources in supporting their performance. As managers then, one of their responsibilities is to make the whole educational processes under their command efficiently accomplished through "the execution of four basic management functions: planning, organizing, leading, and controlling." (Carpenter, Bauer & Erdogan, 2010, p. 19). Further descriptions of the four basic functions are elaborated as follows,

| Planning | Organizing | Leading | Controlling |
|---|---|---|---|
| 1. Vision & Mission<br>2. Strategizing<br>3. Goals & Objectives | 1. Organization Design<br>2. Culture<br>3. Social Networks | 1. Leadership<br>2. Decision Making<br>3. Communications<br>4. Groups/Teams<br>5. Motivation | 1. Systems/Processes<br>2. Strategic Human Resources |

Table 1 P-O-L-C Framework (Carpenter, Bauer & Erdogan, 2010, p. 32)

In the phase of planning, the first thing that a teacher must do is defining his or her vision and mission as a teacher of a particular subject for a certain school. His or her vision and mission must be in line with those of the school. The next thing to do is phrasing approaches and techniques for achieving the vision and mission through operational strategies he or she is going to carry out with most possible successes. The most important phase in this function of management is decision making about the goals and objectives of his or her teaching activities. Above all, due to all those processes and targets the teacher must take the school conditions into consideration when setting up future orientations of his or her plans. In short, he or she must be good at making any decisions related to his or her profession.

The next phase after planning is organizing his or her activities by paying attention to the organisation design, pertaining school culture, and existing social networks the teacher and school belong to. The organisation design will show the teacher his or her position and function in the context of organisational rules and objectives. The design will also show the teacher the order by which the work in the school is to be performed. It is a very influential part of the school culture in which all the teachers, students, staff and management have their own shares. The school culture must become part of his or her conducts in doing any jobs because in the culture there are shared values any member of the organisation must conserve. Also functioning as part of the culture is school network. The network will give the teacher opportunities to develop other potentials in addition to what he or she has performed in the school. It is also an important medium by which he or she could continually


ISBN: 978-602-74576-0-7

interact to learn and reflect on his or her achievements.

The next function of a teacher is leading. In this function, a teacher must be able to make use of any "informal sources of influence" coming from the side of the school, for instance having a good and healthy relation with other teachers and the principal, from the side of the students, for example having a good reputation among the students, and coming from his or herself, for example having good characters. The subordinates of a teacher are the students, thus becoming a model in various tenets of life is a must if he or she wishes to be successful in performing the leading function. In the teachings of Ki Hadjar Dewantara (the father of Indonesian national education) a teacher must perform three roles: a model, motivator, and guardian among his or her students.

The last function of a teacher in terms of his role as a manager is controlling. Carpenter, Bauer, and Erdogan (2010, p. 35) propose three steps of controlling: "(1) establishing performance standards, (2) comparing actual performance against standards, and (3) taking corrective action when necessary." For a teacher, all the three steps belong to the evaluation process, i.e. setting up specific criteria of scoring, evaluation process based on the criteria, and doing remedial teachings for students who have not passed the success criteria.

Based on those concepts of management and to answer the question of the paper, the analysis is presented by using the following model of teacher professional development (TPD) for curriculum implementation (Figure 1). In the model, it is shown that the teacher inputs are those who have never participated in a TPD program under the whole-school approach.

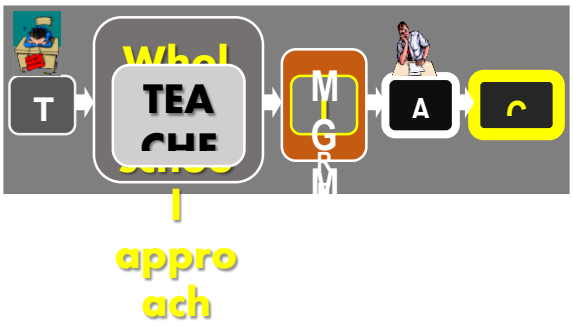



Figure 1 TPD Model for Curriculum Implementation

After taking part in any TPD under the whole-school approach, the teachers are involved in an ICT-based Lesson Study through MGMP revitalisation scheme the results of which are the autonomous learner teachers who are independent and prepared enough for curriculum implementation at all institutional, local, regional and national levels.

### 1. Managing whole-school approach

In line with the term whole-school, this approach in managing a school is based on the assumption that a school exists within its contextual perspective, the community around the school. The community consists of two circles, the internal circle involving the teachers, students, parents, councellors, school staff; and the external circle involving related government agencies, industries, professional associations and so on. The most important principle of the approach is that "teaching is interactive and inclusive, building partnerships with families and the broader community" in "the development of policies and procedures" (Kids matter, 2011). Therefore, in the whole-school approach, the participation of the external circle is designed to complement and empower the process undertaken by the internal circle. This also emphasized by Henderson (2004) that "active participation and partnership" do not only occur inside the school building between the teachers, students, management but also happen with the


ISBN: 978-602-74576-0-7

community involving various organisations, industry, business and government agencies.

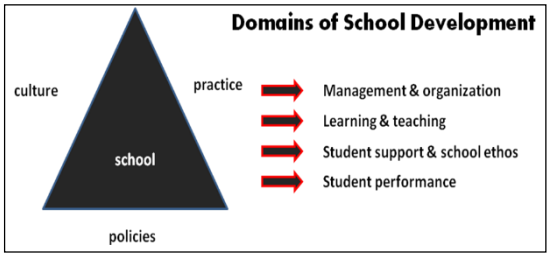



Figure 2 Domains of School Development (Education Bureau, 2010, p. 12).

As shown in the figure, the domains of school development are divided into four aspects: management and organisation, learning and teaching, student support and school ethos, and student performance. In all the four phases of managing the whole school approach (planning, organising, leading and controlling), the school must involve its surrounding stakeholders in developing policies, practice and culture of the school. By so doing, it is expected that it is natural that when an activity is supported by many more parties, the school would be able to perform its functions better and it turns out to be more efficient in managing the whole processes of instruction and education.

The following is an example of the criteria and procedures for implementing the whole-school approach prepared by the Education Bureau of the Government of the Hong Kong Special Administrative Region (2010, pp. 12-13).

| | |
|---|---|
| **Whole School Consensus** | All staff of the school acknowledge the responsibility of establishing an inclusive environment to cater for the needs of all students. |
| **Curriculum Accommodation** | The school curriculum can be adapted and/or expanded to cater for different needs. |
| **Differentiated Teaching** | Diversified teaching techniques and assistive equipment to cater for students' diverse learning needs. |
| **Peer Support** | Learning groups, peer tutoring and circles of friends are strategically organized. |
| **Teacher Collaboration** | Teachers work together and support each other. |
| **Classroom Support** | Specialists collaborate with teachers in improving the learning environment, e.g. arrange team teaching for the benefit of all students. |
| **Assessment Accommodation** | Assessment methods are adapted to facilitate students' demonstration of their learning outcome. |

Table 2 Characteristics of the Whole-School Approach

Since there is an international trend in transforming schools from teaching organisations to "learning organisations" in which various countries try to develop more accountable systems for teachers to collaborate effectively (OECD, 2009, p. 49), the model can be implemented with flexible modifications in other parts of the world, including in Indonesia, as a standard for managing the whole-school approach.

By adapting the framework of P-O-L-C developed by Carpenter, Bauer and Erdogan (2010), the management of the whole-school approach is as follows.

| | | |
|---|---|---|
| **Function** | **:** | **Planning** |
| **Aspects** | **:** | a) Vision and mission<br>b) Strategies<br>c) Goals and objectives |
| **Activities** | **:** | ▪ A school team prepares all the thirteen management aspects related to the whole-school approach to be presented to the internal circle for discussions and |


ISBN: 978-602-74576-0-7

| | | |
|---|---|---|
| | | suggestions, and to the external circle for review.<br>▪ Insights from both sides are accommodated in the final document of the whole-school approach strategic plan containing the whole aspects to be implemented by related parties. |
| **Function** | **:** | **Organising** |
| **Aspects** | **:** | a) Organization design<br>b) Culture<br>c) Networks<br>d) Leadership |
| **Activities** | **:** | ▪ The documents containing all the four aspects are socialised to both circles, internal and external.<br>▪ The school principal leads the implementation of the four aspects in cooperation with both circles.<br>▪ Internal monitoring system is implemented for follow-up recommendations. |
| **Function** | **:** | **Leading** |
| **Aspects** | **:** | a) Decision making<br>b) Communications<br>c) Groups/teams<br>d) Motivation |
| **Activities** | **:** | ▪ Regular meetings are held with both circles.<br>▪ Innovations and fresh ideas are welcome from both circles to improve existing situations.<br>▪ A merit-based system is implemented to continually create conducive atmospheres for work. |
| **Function** | **:** | **Controlling** |
| **Aspects** | **:** | a) Systems/resources<br>b) Strategic human resources |
| **Activities** | **:** | ▪ Internal audit system and quality assurance work hand in hand to guarantee that all agreed standards are met.<br>▪ Recommendations for follow-up are implemented, if necessary, by involving external consultants. |

The details of the framework are further adjusted to the growing dynamics of the schools and the most important goal of managing the whole-school approach is to provide bases for the teacher professional development at individual, institutional, local, regional and national contexts.

## 2. Managing teachers professional development

Professional development among the Indonesian teachers has been carried out since the profession existed. This has been becoming more intensive especially after teaching is formally recognized by the Law 14/2005 about teachers and lecturers. The practice of Indonesian teacher professional development is performed in different levels including personal, institutional, local, regional, national and international.

A recent development in the implementation of school-based management has changed the nature of teacher professional development. This is supported by Glover & Law (1996, p. 5) who say that opportunities and awareness have been growing widely among teachers that "schools are potentially fertile ground for improvement—for encouraging the growth of knowledge, the command of skills, or a change in attitudes amongst staff as well as students." This new trend in approaching school quality improvement through school-based management has turned the old paradigm that professional development is a matter of individual businesses into a new paradigm that also recognises school crucial role "an enabling mechanism at departmental and institutional levels for creating a professional culture in which improvement strategies can flourish" (Glover & Law, 1996, p. 8).


ISBN: 978-602-74576-0-7

However, even though there has been significant changes in the implementation of professional development by involving both schools and teachers collaboratively, it is also important to learn from experiences that "school-based and school-centered activities may sometimes be inappropriate or even counter-productive" due to the fact that teachers are sometimes feel more autonomous to develop their own professions alone. This is especially because the nature of professional development is more personal than institutional. Therefore, as noted by Glover & Law, "if professional development is to succeed, then appropriate, coherent and timely strategies are essential" (1996, p. 33).

It is also important, then, to prepare a good plan for the professional development among teachers in a particular school. This must be done so in order to make the program run as expected and result in the improvement of the quality of teaching and learning. Beginning such a successful program needs common understanding which is based on a shared definition about professional development itself.

There have been various definitions made by different writers and scholars about professional development. One of the definitions is stated by OECD (Organisation for Economic Co-Operation and Development) whose members are thirty, mostly European, developed democratic countries, saying that professional development include "activities that develop an individual's skills, knowledge, expertise and other characteristics as a teacher (2009, p. 49). The emphasis of the definition is individual competence. However, this does not necessary mean that school-based professional development programs are prohibited. They are encouraged as long as the ultimate goal of the programs is for the improvement of individual teachers' well-being in the form of "the acquisition or extension of the knowledge, understanding, skills and abilities." By acquiring and extending the four aspects, it is expected that both the individual teachers and schools which have transformed themselves into learning organisations (Blanford, 2000, pp. 4-5) are able to a) improve the quality of their teaching and learning practice, b) learn from best lessons for reflections, and make action research to solve teaching and learning problems, c) together with students, other teachers and staff improve school learning culture, d) continually update their knowledge, e) analyse particular educational policy of interest, especially in increasing standards, and f) engage themselves in learning activities to improve understanding of society and use of ICT.

There are a number of professional development programs that a teacher might be involved in cooperation with the school he or she works for. Darling-Hammond, *et al.* (1986, cited in Glover & Law, 1996, p. 30) suggest two types of teachers professional development programs: 1) working with other professionals "to promote professional understanding," and 2) particularly designed-training program "to satisfy more objective measures like student success rates." The second program is usually institutionally driven for improving certain teaching skills and further developing the teacher's competence. In the following scheme of professional development (Figure 3), Branford involves three related opportunities (education, training and support) and two collaborators (peers and experts).

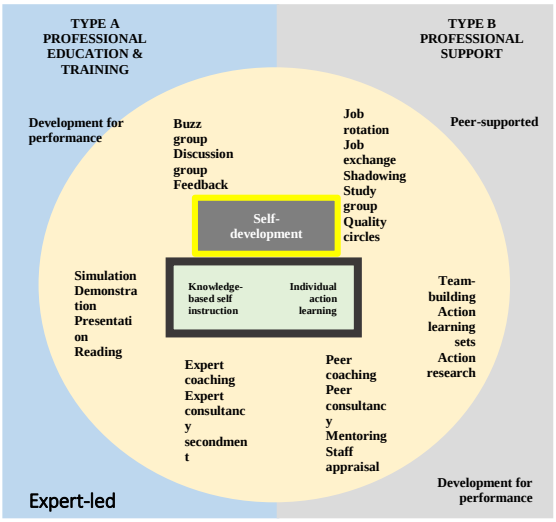



Figure 3 Professional development opportunities (Blandford, 2000, p. 166).


ISBN: 978-602-74576-0-7

However, as it is illustrated in the figure, the essence of the professional development is "self-development" with both sides of activities: "knowledge-based self instruction" and "individual action learning." This double-faced development is very significant in transforming a teacher to build his learning habits. The other available opportunities for strengthening the teacher's self-development are varied from "job rotation" to "staff appraisal." The techniques of the development program are also varied from "buzz group" to "secondment." The choice of opportunities (combination between activities or programs and techniques) is very much dependent on the preparedness of the teacher and school, the availability of supporting factors (experts, consultants and peers).

The emphasis on teachers' learning activities during the implementation of a professional development program is designed to endorse the development of different "teachers' learning communities" which will guarantee the continuity of the program in the future. The opportunities that the communities can take include "training, practice and feedback" that should be followed by necessary arrangements of reinforcement among the teachers. By so doing, it is expected that they could "share their expertise and experience more systematically" (OECD, 2009, p. 49). Besides, in terms of school-based management, professional development among teachers within a particular school (Blanford, 2000, p. 3) has at least four functions including to a) enhance individual performance, b) rectify ineffective practice, c) establish the groundwork for the implementation of policy, and d) facilitate changes.

When the continuity of such a program is guaranteed, as cited in Glover & Law (1996, p. 2), Bolam adds four benefits of a continuing teacher professional development program including a) adding to their professional knowledge, b) improving their professional skills, c) clarifying their professional values; and d) enabling their students to be educated more effectively.

In order to make the four benefits come to reality, Bolam (cited in Blandford, 2000, p. 6) divided the management of professional development into four types of activities as follows,

| | |
|---|---|
| **Practitioner development** | School-based development, self-development, induction, mentoring, observation, job-shadowing and team teaching. |
| **Professional education** | Award bearing courses managed and taught at higher education institutions (HEIs), focusing on the relationship between educational theory and practice, and leading to higher education accreditation and professional qualifications. |
| **Professional training** | Conferences, courses and workshops that emphasise practical information and skills, managed and delivered by LEAs, schools' external consultants or trainers from HEIs. Such courses may lead to academic awards or accreditation towards national standards. |
| **Professional support** | Provided by colleagues and managers in fulfillment of contractual conditions of service; e.g. recruitment and selection procedures (including job descriptions), promotion, career development, appraisal, mentoring, team building, redeployment and equality of opportunity. |

By adapting the framework of P-O-L-C developed by Carpenter, Bauer and Erdogan (2010), the management of the teacher professional development (TPD) is as follows.

| | | |
|---|---|---|
| **Function** | **:** | **Planning** |
| **Aspects** | **:** | a) Vision and mission of TPD<br>b) Strategies of TPD |


ISBN: 978-602-74576-0-7

| | | |
|---|---|---|
| | | c) Goals and objectives of TPD |
| **Activities** | : | ▪ Vision, mission, strategies, goals and objectives of teacher professional development are formulated in a special blueprint of TPD.<br>▪ All teachers and staff are briefed about the blueprint for further implementations. |
| **Function** | : | **Organising** |
| **Aspects** | : | a) Organization design of TPD<br>b) Culture of TPD<br>c) Networks of TPD<br>d) Leadership of TPD |
| **Activities** | : | ▪ The organisation design of TPD at individual and institutional levels is decided and published in relation with the implementation of TPD blueprint.<br>▪ The principal leads and monitors the implementation of the TPD programs in cooperation with existing networks. |
| **Function** | : | **Leading** |
| **Aspects** | : | a) Decision making of TPD<br>b) Communications of TPD<br>c) Groups/teams of TPD<br>d) Motivation of TPD |
| **Activities** | : | ▪ TPD programs are carried out with teachers and other supporting parties.<br>▪ Regular meetings are held to evaluate the implementation of the TPD programs at individual and institutional levels.<br>▪ Teachers are motivated to join TPD programs held by involving external parties. |
| **Function** | : | **Controlling** |
| **Aspects** | : | a) Systems/resources of TPD<br>b) Strategic human resources of TPD |
| **Activities** | : | ▪ Standard operating procedures of TPD are prepared and implemented.<br>▪ Teachers are encouraged to design their own TPD programs at individual and institutional levels. |

The details of every activity in the management framework of teacher professional development must be suited to the dynamics and potentials that a school and its teachers have. The ultimate goal of managing teacher professional development is for the school and teachers to be prepared for a lesson study program involving other schools and their teachers. There is a possibility to also involve the school principals, councellors, administration staff and parents in the lesson study.

### 3. Managing teachers community revitalisation through ICT-based Lesson Study

There might be questions about how the revitalisation of teachers communities (KKG for elementary school teachers and MGMP for high school teachers) would be managed, and why lesson study, why not the other activities? Firstly, KKG stands for *Kelompok Kerja Guru*, a community of elementary school teachers in one sub-district, while MGMP stands for *Musyawarah Guru Mata Pelajaran*, a community of high school teachers who teach a particular subject matter in a district. One of the main functions of the teacher communities is to provide the members opportunities to join professional development programs. Even though the Ministry of National Education (MONA) has published


ISBN: 978-602-74576-0-7

two manuals −the Development Standards for KKG and MGMP (2008), and the Standard Operating Procedures for KKG and MGMP (2008) – the activities of both communities depend very much on several factors including the committee and funds. If the committee are active, at least once in a month they have a meeting under the mentorship of a "core" teacher who is supposed to be more literate in certain educational affairs because the core teacher is frequently assigned among the few to follow some institutional or development programs at regional and national levels.

Secondly, lesson study is chosen to be the means for revitalising both KKG and MGMP because 1) lesson study has been practiced by a number of universities in certain subjects for several years and the results are satisfactory, and 2) as stated by Prasetyo (2006) that lesson study has proven to be a powerful means for teachers and school principals for improving the quality of the students' learning and that of the school management. In his study among high school teachers and school principals in Yogyakarta Special Region in 2006, the findings showed that all the respondents came into terms of cooperative status after five cycles of lesson study. Therefore, in an effort to revitalise KKG and MGMP in relation to curriculum implementation, ICT-based lesson study is a good choice by also taking into consideration other important factors like geographical locations of schools and economy.

Lesson study (LS) itself has its long history in Japanese education system. It was introduced to develop Japanese elementary schools teachers in practical knowledge of teaching in the 1870s. It involves groups of teachers collaboratively planning, teaching, observing and analysing learning and teaching in 'research lessons.' In a cycle they shared the lesson plans, discussed how teaching and learning would happen, observed other teachers' performance in the classrooms, recorded whatever they were interested during the lessons, analysed the notes about the teaching and learning activities they just observed, and met together after the lesson to discuss certain points of interest to improve teaching and learning in the next cycle. After a number of lesson study cycles, they may "innovate or refine a pedagogical approach which will be shared with others both through public research lessons, and through the publication of a paper outlining their work" (Dudley, 2011, p. 2). Through the cycles of lesson study, the teachers collaborate in planning the lessons, observing each other's teaching, and "conferring" for recommendations and follow-ups (Meyer & Wilkerson, 2011, p. 6). It seems that the key factor in the success of this professional development program among the Japanese teachers is the high degree of discipline they show in following the programs.

Therefore, due to the nature of its collaboration and cooperation among teachers, Lewis (2002) defined lesson study as "a teacher-led instructional improvement cycle" in which they perform the following phases:

a. Group discussion to design how student learning is managed,
b. Workshop to plan a lesson to be taught by each of the teachers,
c. Teaching students and/or observing lessons taught by other teachers,
d. Reflection on the results of the teaching and observation,
e. Improvement or revision of previously taught lessons, and
f. Re-teaching students by using the revised lesson plans.

All the six phases are performed in a single lesson study cycle to be followed by the other cycles until they come to a conclusion that the repetition of the cycles (generally three cycles) has met their expectation of improvement in how learning happens. The focus of their attentions is the quality improvement of the students' learning. As indicated by all the phases in one cycle, the products of the cycle consist of two useful documents for future planning (Cerbin & Kopp, 2006, p. 250) including a) detailed, revised lesson plan produced collaboratively, and b) research report showing in details how teaching and learning take place.

In the following (Figure 4), Dudley illustrates in details how the three cycles of a lesson study are carried out. At the starting point, a meeting of the lesson study group (usually between five to seven teachers) is held at one of the participating


ISBN: 978-602-74576-0-7

teachers' school "to determine what is that you want to improve," for example the students' acquisition of a theory or concept. Their agreement on the students' achievement or progress is then put into the first lesson plan which is prepared collaboratively as criteria of accomplishment they are bound to. Interviewing students is done to clarify what has been observed by participating colleagues the results of which are brought into the discussion for planning and/or revising the second lesson. Such an undertaking is repeated again and again until they come to an agreement about "overall findings" to be written down for publication or presented to other teachers for discussion and sharing of experience and evidence.

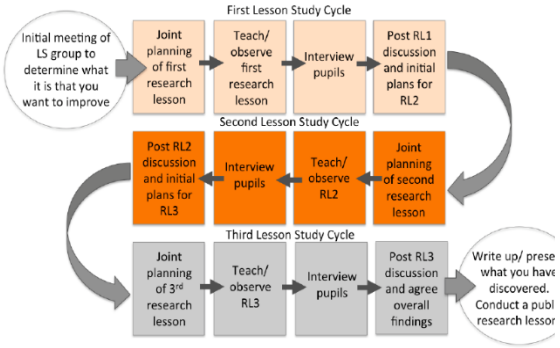



Figure 4. Lesson Study Process (Dudley, 2011, p. 6).

Since the lesson study among Indonesian teachers is designed to help revitalise existing teachers community (KKG and MGMP), two important factors must be taken into serious consideration: geography and funding. To overcome geographical and funding problems, communication and information technology is the answer. The technology surpasses the geographical barriers, especially in remote areas where infrastructure is very limited, and, under today's circumstances, the cost of communicating through internet connections is cheaper than organising face to face gathering among participating teachers.

It is true to say that the nature of lesson study is collaborative and cooperative. However, lesson study as a method of empowering teachers to revitalise teacher community has its own positive impact on teachers' autonomy development, especially when the use of ICT is prioritised. The technology has a very significant role in transforming teachers to be autonomous learners by implementing professional development in some ways. One of the ways how the technology helps the teachers is his freedom to access any necessary information from the internet. "Technology can help learners develop this knowledge and the necessary learning skills" (Reinders & Hubbart, 2013), and, of course, there are parts of lesson study cycles that can be carried out by using ICT.

By adapting the framework of P-O-L-C developed by Carpenter, Bauer and Erdogan (2010), the management of Teachers Community Revitalisation (TCR) through ICT-based Lesson Study (ICT-based LS) is as follows.

| | | |
|---|---|---|
| **Function** | **:** | **Planning** |
| **Aspects** | **:** | a) Vision and mission of TCR<br>b) Strategies of TCR<br>c) Goals and objectives of TCR |
| **Activities** | **:** | ▪ Vision, missions, strategies, goals and objectives of TCR are formulated in a special plan of TCR by each of the existing committees of KKG and MGMP.<br>▪ The TCR plan is implemented in cooperation with all the members and other related parties, especially education government agencies. |
| **Function** | **:** | **Organising** |
| **Aspects** | **:** | a) Organization design of TCR<br>b) Culture of TCR<br>c) Networks of TCR<br>d) Leadership of TCR |
| **Activities** | **:** | ▪ An organisation design of TCR is made and |


ISBN: 978-602-74576-0-7

| | | |
|---|---|---|
| | | implemented in each own basis (sub-district level for KKG and district level for MGMP).<br>▪ The committee of KKG or MGMP is responsible for the implementation of the planned programs among member teachers in its territory on monthly bases. |
| **Function** | **:** | **Leading** |
| **Aspects** | **:** | a) Decision making of TCR<br>b) Communications of TCR<br>c) Groups/teams of TCR<br>d) Motivation of TCR |
| **Activities** | **:** | ▪ TCR programs are carried out with member teachers and other parties.<br>▪ Regular meetings are held to evaluate the implementation of the TCR programs at sub-district level for KKG and district level for MGMP.<br>▪ Teacher members are motivated to join TCR programs by implementing a merit-based scheme. |
| **Function** | **:** | **Controlling** |
| **Aspects** | **:** | a) Systems/resources of TCR<br>b) Strategic human resources of TCR |
| **Activities** | **:** | ▪ Standard operating procedures of TCR are prepared and implemented.<br>▪ Outstanding groups of teachers are encouraged to design their own TCR programs in their areas and funding is provided on a particular merit basis. |

The details of every activity in the management framework of TCR through ICT-based LS must be suited to the social, economic and cultural conditions in a district or sub-district. There is a possibility to also involve the school principals, councellors, administration staff and parents in the programs implementation of TCR through ICT-based LS. The ultimate goal of managing TCR through ICT-based LS is to develop and improve the teachers' autonomy as both "a means to an end," i.e. teachers as autonomous learners to support curriculum implementation, and "an end in itself," i.e. teachers as both teaching and learning agents ("Learner autonomy," 2013).

In order to achieve the status of autonomous learners, there are certain criteria that the teachers must meet including flexible roles, positive attitudes, reflection abilities, and the preparedness to be proactive in self-management and training and be proportional in interaction and communications with others (Little, 2016; Lai, 2011; Thanasoulas, 2000; and Tütüniş, 2011).

## 4. Managing curriculum implementation

Curriculum implementation is an integral part of the continuous efforts to improve the quality of education through the various processes of the curriculum macro and micro redesigns. There are factors influencing a curriculum implementation strategy including the philosophical values, government type, geography, infrastructure supports, human resources availability, funding, supporting facilities and schooling systems. In the traditional paradigm of curriculum implementation programs, there were two popular strategies, "fidelity versus adaptive," with their own benefits and limitations. The fidelity supporters believe that "good education occurs through homogenized and standardized implementation of the curriculum." They view that the curriculum must be implemented as it is designed by its developers because there is "a highly specified program developed by experts" (Cho, 1998, pp. 3-4) in the curriculum that cannot be modified without altering the course of the general interests to be contained in the policy of national development programs in educational fields.


ISBN: 978-602-74576-0-7

On the other side, the supporters of adaptive strategies believe in "a local-oriented change process" due to the heterogeneity of a country's social, economic and cultural conditions. They take "the complexity of the context in which a change takes place" (Cho, 1998, p. 4) into their main consideration. In a big country with the various social, economic and cultural backgrounds like Indonesia, a national curriculum implementation means a major change involving a variety of formal education systems, diverse geographical locations and different economic supports, this strategy should have been implemented. However, it should also be considered that this strategy needs a very careful and comprehensive, nationally-agreed planning arrangement before implementation.

However, in addition to the two opposing strategies, there has been a trend for a more focused approach in curriculum implementation, "the third alternative." The approach is called "enactment". In this approach, both teachers and students are given opportunities to create meanings of the new curriculum on their own. Thus, "meaningful educational experiences" in the learning processes are basically constructed through the changing "intra contextuality" between teachers and the students (Snyder, *et al*., 1992 cited in Cho, 1998, pp. 3-6). Considered to be the most recent approach in curriculum implementation, it is different from the two opposing strategies in terms of its definition of curriculum. To the supporters of the enactment strategy, curriculum should be understood as a general framework which must be put into practice for a successful implementation on the level of its real operation, the classroom activity.

By adapting the famework of P-O-L-C developed by Carpenter, Bauer and Erdogan (2010), the management of the Curriculum Implementation (CI) is as follows.

| | | |
|---|---|---|
| **Function** | **:** | **Planning** |
| **Aspects** | **:** | a) Vision and mission of CI<br>b) Strategies of CI<br>c) Goals and objectives of CI |
| **Activities** | **:** | ▪ Vision, missions, strategies, goals and objectives of CI are formulated in a special plan of CI by a school-based task-force.<br>▪ The CI plan is implemented in cooperation with all stakeholders, both internal and external, and other related parties, especially education government agencies. |
| **Function** | **:** | **Organising** |
| **Aspects** | **:** | a) Organization design of CI<br>b) Culture of CI<br>c) Networks of CI<br>d) Leadership of CI |
| **Activities** | **:** | ▪ An organisation design of CI is made and implemented in the school in cooperation with related parties like the school committee.<br>▪ The school principal is responsible for the implementation of the CI programs among the teachers and other supporting parties. |
| **Function** | **:** | **Leading** |
| **Aspects** | **:** | a) Decision making of CI<br>b) Communications of CI<br>c) Groups/teams of CI<br>d) Motivation of CI |
| **Activities** | **:** | ▪ CI programs are carried out among the teachers and other supporting parties.<br>▪ Regular meetings are held to evaluate the implementation of the CI programs and recommendations are encouraged. |


ISBN: 978-602-74576-0-7

| | | |
|---|---|---|
| | | ▪ Teacher members are motivated to improve the quality of their students' learning through a merit-based scheme. |
| **Function** | **:** | **Controlling** |
| **Aspects** | **:** | a) Systems/resources of CI<br>b) Strategic human resources of CI |
| **Activities** | **:** | ▪ Standard operating procedures of CI programs are prepared and implemented by QA task-force.<br>▪ Continuous improvement career plans are prepared for outstanding performers. |

The details of every activity in the management framework of curriculum implementation must be suited to the level of the whole-school approach implementation. The ultimate goal of managing the curriculum implementation is to develop the most suitable strategy or strategies to be carried out in the long run. In Indonesian context, by also considering the success in developing teachers autonomy in this respect, there should a continual joint effort between all educational stakeholders to move from fidelity to adaptive strategies, and from adaptive to enactment strategies in the future implementation of curriculum at school, local, regional and national levels.

## C. Conclusions

Indonesian teacher professional development can be managed comprehensively to support curriculum implementation by effectively applying the whole-school approach and managing the revitalisation of teachers existing community (KKG for elementary school teachers and MGMP for high school teachers) through ICT-based lesson study. The most important impact of this approach is that, during the whole scheme of PTD, the teachers are being transformed into autonomous learners who are prepared to implement curriculum minor modifications or major changes at different levels. The following impact of Indonesian teachers' autonomy in both teaching and self-learning is improvement in quality teaching through "the use of pedagogical techniques to produce learning outcomes for students." One of the requirements of the quality teaching is the existence of suitable curriculum designs and implementation approaches for both institutional and national levels (Hénard & Roseveare, 2012, p. 7).

Yogyakarta, January 15, 2016

References

Blandford, S. (2000). *Managing professional development in schools*. New York: Routledge.

Carpenter, M., Bauer, T. & Erdogan, B. (2010). *Principles of Management - Version 1.1*. Washington D.C.: Flat World Knowledge, Inc.

Cerbin, W.& Kopp, B. (2006). Lesson study as a model for building pedagogical knowledge and improving teaching. In *International Journal of Teaching and Learning in Higher Education Vol. 8 No. 3*, pp. 250-257.

Cho, J. (1998). Rethinking curriculum implementation: Paradigms, models, and teachers' work. *The Annual Meeting of the American Educational Research Association* (San Diego, CA, April 13-17, 1998). ED 421 767.

DeMonte, J. (2004). *High-quality professonal development for teachers*. Center for American Progress.

Direktur Profesi Pendidik. (2008). *Standar operasional pengembangan Kelompok Kerja Guru (KKG) Musyawarah Guru Mata Pelajaran (MGMP)*.

Direktur Profesi Pendidik. (2008). *Standar pengembangan Kelompok Kerja Guru (KKG) Musyawarah Guru Mata Pelajaran (MGMP)*.

Dudley, P. (2011). Lesson study: A handbook. In *Lesson study U.K.*, www.lessonstudy.co.uk

Education Bureau. (2010). *Operation guide on the whole school approach to integrated education*. The Government of the Hongkong Special Administrative Region.


ISBN: 978-602-74576-0-7

Glover, D. & Law, S. (1996). *Managing professional development in education*. London: Kogan Page Ltd.

Hénard, F. & Roseveare, D. (2012). *Fostering quality teaching in higher education: policies and practices*. OECD.

Henderson, K & Tilbury, D. (2004) *Whole-school approaches to sustainability:An international review of sustainable school programs*. Report Prepared by the Australian Research Institute in Education for Sustainability (ARIES) for The Department of the Environment and Heritage, Australian Government.

Kids Matter. (2011). *A whole-school approach*. www.kidsmatter.edu.au/primary/about-kidsmatterprimary/theory

Lai, C. (2011). In-service teacher development for facilitating learner autonomy in curriculum-based self-access language learning. In D. Gardner (Ed.). *Fostering autonomy in language learning* (pp. 148-160). Gaziantep: Zirve University. Retrieved from http://ilac2010.zirve.edu.tr

Learner autonomy. (2013). Retrieved from https://en.wikipedia.org/wiki/Learner_autonomy

Lewis, C. (2002). *Lesson study: A handbook of teacher-led instructional change.* Philadelphia: Research for Better Schools.

Little, D. (2016). Learner autonomy and second/foreign language learning. In *LLAS Centre for Languages, Linguistics and Area Studies*. Retrieved from https://www.llas.ac.uk/resources/gpg/1409

Meyer, R.D. & Wilkerson, T.L. (2011). Lesson study: The impact on teacher's knowledge for teaching mathematics. In L. C. Hart, *et al*. (eds.), *Lesson Study Research and Practice in Mathematics Education*,DOI 10.1007/978-90-481-9941-9_2, © Springer Science & Business Media B.V.

OECD. (2009). *Creating effective teaching and learning environments: First results from TALIS*. ISBN 978-92-64-05605-3.

Prasetyo, H.E. (2006). *Program pemberdayaan sekolah melalui Lesson Study antar kepala sekolah dan guru SMA di Daerah Istimewa Yogyakarta*. Yogyakarta: LP3M UST Yogyakarta and Yayasan Damandiri Jakarta.

Reinders, H. & Hubbart, P. (2013). CALL and learner autonomy: Affordances and constraints. In Thomas, M., Reinders, H., & Warschauer, M. (Eds.) (2013). *Contemporary Computer-Assisted Language Learning*. New York: Continuum.

Thanasoulas, D. (2000). What is Learner Autonomy and How Can It Be Fostered? *The Internet TESL Journal, Vol. VI, No. 11*. Retrieved from http://iteslj.org/

Tütüniş, B. (2011). Changing teacher beliefs and attitudes towards autonomous learning. In D. Gardner (Ed.), *Fostering autonomy in language learning* (pp. 161-165). Gaziantep: Zirve University. Retrieved from http://ilac2010.zirve.edu.tr

Wei, R.C., Darling-Hammond, L. & Adamson, F. (2010). *Professional development in the United States: Trends and challenges*. Dallas, TX: National Staff Development Council.


ISBN: 978-602-74576-0-7

# WHAT TEACHERS LEARN FROM INTERNSHIP PROGRAM IN ADELAIDE SOUTH AUSTRALIA? A CASE STUDY OF HIGH SCHOOL TEACHERS IN WEST JAVA

**NURUL HIDAYAH†**
**Senior High School 1 Cisarua, West Bandung Regency**
**West Java Province, Indonesia**

**Abstract**

This paper explores a teacher professional development program conducted by Education Authorities of West Java Province in collaboration with Department for Education and Child Development of South Australia in 2014. About 168 teachers from various regencies or cities in West Java who teach different subject participated in internship program in Adelaide South Australia. Research revealed that during internship program teachers learnt about pedagogical knowledge, culture, leadership, team work and school management. At the end of the program teachers made an action plan that would be applied in their school in Indonesia. The action plans refer to various activities in order to enhance quality of learning activities in the classroom, to improve teachers capacity and to increase education quality generally. Data shows that more than fifty percent teachers have implemented the action plan they made. Teachers who have not applied their action plan because of some obstacles implement other programs or methods result from their learning in the internship program. To sum up, through internship program teachers learn, plan and implement program to enhance teaching and education quality.

## 1. Introduction

Teacher plays an important role in determining the quality of education. Teacher is not only one factor affecting education practice but also the most significant factor for student (Quinn, 2014). Therefore making effort to enhance teacher capacity is a valuable investment.

Several program can be conducted as teacher professional development (TPD). West Java province through Education Authority runs TPD program for high school teachers in collaboration with Department of Education and Child Development South Australia. Teachers who pass selection criteria, participate in workshop and internship program in Adelaide South Australia.

The key element of TPD is teacher learning (Kang, 2013). Thus evaluation the success of TPD is particularly significant. Blank, de las Alas, & Smith (2007) suggest five characteristics as core feature of an effective TPD, namely active learning, coherence, duration and collective participation (Corcoran, 2007; De- simone, 2011; Wayne et al., 2008).

Based on those background it is essential to evaluate what teachers learn in TPD. This research focus on:

1. What kind of elements/subjects that teachers learn during internship program and workshop in Teacher Professional Development held by Education Authorities of West Java in 2014?
2. How teachers implement their action plan in West Java High School as a result of TPD program?

## 1. Method

The design of this research is a case study. Cresswell (2007) define case study research as in-depth exploration of a bounded system based on extensive data (Cresswell, 2012).

This qualitative research is conducted through two stages; during workshop internship program in Adelaide South Australia and after internship program.

### *1.1. Data Collecting*

Data was collected in two stages; during TPD and post TPD.

#### *2.1.1 During Internship Program*

Data in this stage was gathered through a participatory observation in one batch (June 14 –July 4 2014) consisting of two groups while the internship program is divided to two batch and two groups each. To support the data, researcher interviewed some participants.

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

2..1.2 *After internship Program*

Questionnaire to 100 participants from various cities and regencies who teach different subjects including English, Indonesian, Sundanese, German, French, Japanese, Math, Biology, Physics, Chemistry, Accountancy, Economic, Geography, Sociology, History, Civics, Counceling, Religion, PE and Art. Questionnaire was given in December 2015. Beside questionnaire, participant interview is also conducted.

## 3. Result and Discussion

### 3.1. *During TPD (Workshop and Internship Program)*

About 168 High School teachers from 26 cities/regencies and various subjects participated in internship program in Adelaide South Australia conducted by Education Authorities of West Java Province in collaboration with Department of Education and Child Development South Australia. This TPD (teacher professional development development) was held for three weeks through workshop and internship program in South Australian School. During TPD teachers experienced learning in the classroom and outside classroom.

What teachers learn called content focus (Ha 2013) in this TPD was revealed through observation. Content focus in this TPD can be grouped into three categories as showed on table 1.

Tabel 1. Content Focus of West Java TPD (2014)

| No. | Topic | Category | Learning Method |
|---|---|---|---|
| 1. | Metacognition and Self Evaluation | Learning how to learn | Workshop |
| 2. | Introduction to Australian System | Schooling Management | Workshop |
| 3. | Mandatory Reporting | | Workshop |
| 4. | Australian/Indonesian Curriculum | | Workshop |
| 5. | Appreciative Inquiry | Learning How to Learn | Workshop |
| 6. | School Based Program : Researching Good Practices | Schooling management | Workshadowing / internship |
| 7. | Curriculum Implementation | Schooling management | Workshadowing |
| 8. | Design, Plan, Organize for Teaching and Learning | Pedagogical knowledge | Workshadowing |
| 9. | Behavior Management Strategies | Pedagogical knowledge | Workshadowing |
| 10. | Learning Assistance | Pedagogical knowledge | Workshadowing |
| 11. | Assessment, Evaluation and Reporting Methods | Pedagogical knowledge | Workshadowing |
| 12. | ICT for Effective Teaching and Learning | Pedagogical knowledge | Workshop |
| 13. | School Management | Schooling Management | Workshadowing |
| 14. | Leadership and Professional Community | Pedagogical knowledge | Workshadowing |


ISBN: 978-602-74576-0-7

| No. | Topic | Category | Learning Method |
|---|---|---|---|
| 15. | Community Involvement in The Local School | Schooling Management | Work shadowing |
| 16. | Teaching for Effective Learning | Pedagogical Knowledge | Workshop |

Topics learned through workshop were conveyed by experts. Teachers participated in the workshop in a big group are about 42. Participants could discuss the topics with speakers and other participants.

Topics covered in work shadowing / internship program in South Australian School could be learned through observation, discussion with host school teachers, interviewing International Coordinator and discussion with other participants who are assigned at the same Australian School.

Participants were grouped into two until eight and placed in different Australian school. Participants learned in different ways during internship program depending on Host Schools. Some schools arranged the activities of participant with fixed schedule while others give autonomy to participant in arranging activities and what kind of topics they wanted to learn.

Most of topic covered in this TPD related to pedagogical knowledge. Subjects matter could be learned through discussion with host school teachers especially subject coordinators.

At the end of TPD, all participants made action plan based on good practices that they found during internship program in Australian School. Those action plan should be implemented in their school in Indonesia.

All topics in this TPD are expected to be useful for all participants in improving teaching practice. Carpenter (1989) argued that content-focused professional development can influence teachers' knowledge, teaching practice, or student learning (Cohen & Hill, 2000; Garet et al., 2001; Ingvarson et al., 2005; Smith, Desimone, & Ueno, 2005; Ha, 2013)

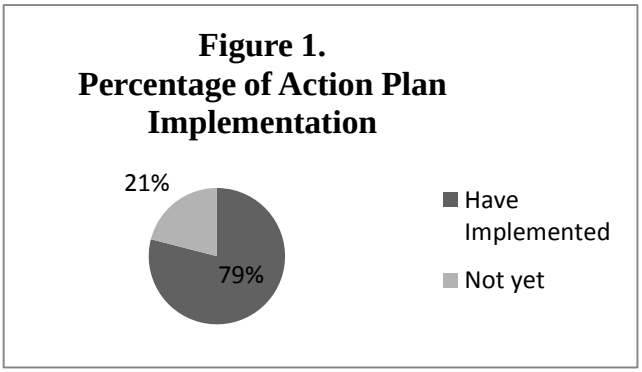
The success of TPD is also determined by participants engagement. Petras (2012) stated that teacher professional development program requires cognitive and emotional involvement of teacher both individually and collectively.

### 3.2. *Post TPD*

Even though the action plans were made in groups based on school placement in Australia, the implementation was run in participant school individually.

From 100 respondents it can be concluded that more than fifty percent have implemented the action plan as shown on the graph 1. Participants who have not implemented their action plans conducted other programs which are adapted from TPD.

**Figure 1.**
**Percentage of Action Plan Implementation**




Various action plans implemented d at different level ; class, school or regency. The action plans have been implemented are shown on table 2.

Table 2.
Action Plans Have Been Implemented


ISBN: 978-602-74576-0-7

| No. | Action Plan | Locus of Implementation |
|---|---|---|
| 1. | Student diary / Subject Diary | S |
| 2 | Reading Challenge | C/S/R/P |
| 3 | Mini research | C |
| 4 | Professional Learning Community | R |
| 5 | Peer Tutor | C/S |
| 6 | Home group | C |
| 7 | West Java Creative Week | S |
| 8 | Morning Greeting | S |
| 9 | Student Centre | S |
| 10 | Vocational partnership | S |
| 11 | Round Table | S |
| 12 | Morning Greeting | S |
| 13 | Environmental program | C/S |
| 14 | Student's Behavior management | C/S |
| 15 | Research Project | C/S |
| 16 | Go Green, lunch box | C/S |
| 17 | IT based teaching | C |
| 18 | Developing Classroom Management | C |
| 19 | Positive behavior support | C |
| 20 | Inquiry based learning | C |
| 21 | Literacy improvement for Science Teacher (LIPS) | S |
| 22 | Blended learning | C |
| 23 | Multi methods Teaching | C |

C = class room
S = School
R = Regency/City
P = Province

As shown on the table, most of program were implemented in classroom level or school level. It is necessary to improve learning quality in the classroom, but sharing the practice to other class or school is also important. The impact of implementation will much more bigger when involving many teachers.

Two programs were implemented in regency level, namely reading challenge and professional learning community. Those program were implemented in the regency that the teachers who made the action plans live in. It means the TPD has significant effect on educational practice.

Even though many participants implemented their action plans successfully, some teacher find it difficult to implement their action plans. The program which have not been implemented are adult education, vocational program, relief teacher, intranet based teaching, certified life skill. Some obstacles were found in implementing those programs such as lack of support from the leader, lack of cooperation between teachers in the school, immature planning, culture, policy, facility and funding.

To overcome the difficulties in implementing action plans that teachers made, it is highly recommended for policy makers to supervise and guide participants after TPD not only during TPD. By supervising and guiding participant for certain period, it is expected teachers to be motivated to make an extra effort in implementing their action plans. Furthermore, promoting learning communities is also substantial as through learning communities teachers can share vision or ideology, commitment, support, incentive and practice (Shulman, 2004).

## 4. Conclusion

During workshop and internship program in Adelaide South Australia in 2014, teachers learn many topics related to pedagogical knowledge, school management and learning how to learn. Most of action plans that teacher made have been implemented while some programs have not. It is highly recommended to support and give guidance after TPD. Advancing learning communities is also recommended.

## References

1. _____. (2014). *Continuous Professional Development Program for West Java Teachers in Adelaide 2014*.
2. *2012, Electronic version:http://eng.kedi.re.kr*


ISBN: 978-602-74576-0-7

3. Avalos, B. (2011). Teacher professional development in Teaching and Teacher Education over ten years. *Teaching and Teacher Education*, 27(1), 10-20
4. Cresswell,John W. (2012). *Educational Research Planning, Conducting and Evaluating Quantitative and Qualitative Research 4th Edition*. Lincoln: University of Nebraska.
5. Development Impact Studies? Based on the Conceptual Framework of Desimone, *Creative Education*. Vol.4, No.4A, 11-18
6. Ferriter, BHill, H. & Cohen, D. (2005). Teaching Teachers: Professional Development to Improve Student Achievement. *American Educational Research Association Research points*.
7. January 2015
8. Kang, Ho Soo., Jungju, Cha., Bong-Woon, Ha. (2013). What Should We Consider in Teachers' Professional
9. Petras, Yusof. Et al. (2012). How do teachers learn? A study on the policy and practice of teacher professional development in Malaysia. *Korean Educational Development Institute*
10. Quiin, Angela E. (2014). Looking at the Bigger Picture with Dr. Robert Marzano: Teacher Evaluation and Development for Improved Student Learning. The Delta Kappa Gamma Bulletin
    http://www.readperiodicals.com/201410/3450761851.html
    Shulman, Lee S., Judith, H. Shulman. (2014). How and what teachers learn: a shifting perspective *Journal Curriculum Studies*, VOL. 36, NO. 2, 257-271
    Vol.3. Issue 1.


ISBN: 978-602-74576-0-7

# ENHANCING KNOWLEDGE AND SKILLS OF TEACHERS IN SD MUHAMMADIYAH 4 BATU IN MANAGING ABK INSTRUCTIONAL ACTIVITIES BY LESSON STUDY

**SITI FATIMAH SOENARYO**
FKIP, Universitas Muhammadiyah Malang

**ABSTRACT**

Children with special needs (ABK) are known as children who deviate significantly from the normal criteria, from the physical, psychological, emotional, and social aspects. Inclusive education is to include ABK to learn together with normal children in the classroom and the regular school. The problem is that teachers in regular schools are not educated and prepared specifically to manage instructional activities for ABK. Problems were also experienced by SD Muhammadiyah 4 Batu. To help solve the problems, FKIP-UMM team implemented Lesson Study to improve teachers' knowledge and skills in managing ABK instructional processes. Lesson study conducted in three cycles were packaged in three learning models: (1) ABK individual learning in a special class, (2) the instructional activities in regular classroom, and (3) instructional activities of ABK in the regular class with the help of GPK.

Keywords: ABK teachings and learning

## INTRODUCTION

One of Standard Competencies for Professional Primary Teacher Education set by Workforce Directorate, Directorate General of Higher Education (Dit-Jen DIKTI) Year 2006 and listed on Decree of Minister of National Education No. 16 Year 2007, is the competence of understanding the distinct personality of students, including the recognition upon student's abnormal development as well as its optimized endeavor through learning. Children with special needs (ABK), which are formerly known as children with impairment, disability or often called as abnormal, are defined as children who deviate significantly from normal conditions, in terms of physical, psychological, emotional and social aspects; thus, it takes special education service to develop their required potencies. The ABK special education is currently provided in three distinct educational institutes: special school (SLB), special primary school (SDLB), and integrated school. The new government policy about inclusive educational program sets ABKs to study along with normal children in regular school. The problem emerging subsequently is that primary school teachers are not particularly educated to teach ABKs. Therefore, the inclusive education becomes a problem for both teachers and schools.

The paradigm of inclusive education is the system providing an inclusive education service in diversities which respectfully considers the diversities in children. Further, the inclusive education incorporates the humanistic educational paradigm which is capable of accommodating all children based on their needs. Operationally, it therefore logically covers the educational implementation in both regular and vocational schools. These schools consequently should be more open, kind and non-discriminatory towards children.

In fact, this obligation has not been firmly done by local government, which in this case is a local education authority. Numerous problems of inclusive school have been reported through two previous studies: "Competence Mapping of Primary School Teacher in Managing Teaching and Learning Process in Inclusive School" and "The Problems of inclusive-education implementation in Primary School". The first study concluded that in general teachers have not been well equipped with adequate competencies in

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

managing teaching and learning process in inclusive school which cover knowledge and understanding about: (1) the ability of initial assessment/prior diagnosis; (2) need-based innovative learning methods; (3) general competencies and perspective about ABKs; (4) the ability of ILP development; (5) learning model recognition; (6) ABK learning assessment; (7) the understanding of child psychology, developmental psychology, and abnormal psychology; and (8) the necessity of explorative experience in facing the distinction of ABKs. Meanwhile, the second study showed several problems faced by teachers, such as: recognizing the types and degree of ABKs' deviation, the way how an effective ABK learning should be implemented in both individual learning plan (ILP) and its implementation.

These problems are also found in the partner primary-school, which is SD Muhammadiyah 4 Batu. This school is a favorite school having parallel classes in which each class has 3-5 learning groups from 641 students. As the leading school, the inclusive educational program should be implemented. It has been running since term 2012-2013. In that academic year, school accepted 17 ABKs as students in Grade I. Due to the teacher's lack of special competence in managing ABK teaching and learning process, these children were grouped in a special class which was particularly taught with the help of special need teaching assistant (GPK). They rarely got involved with other normal students unless in a small numbers of particular subjects. This model surely does not reflect the nature and paradigm of inclusive education: creating conducive climate for ABKs to learn along with normal students in a regular class. A solution for this problem might be derived from the use of *lesson study*, regarding its beneficial function: enhancing both learning process and learning outcomes through sustainable and collaborative work of teachers. By solving it collaboratively, teachers are able to cooperate each other to tackle down the ABK learning obstacles. The aims of this *lesson study* were enhancing the knowledge and skills of teachers in SD Muhammadiyah 4 Batu in managing ABK learning, and helping teachers to implement the "Education for All" program.

## REVIEW OF RELATED LITERATURES

### Children with Special Needs (ABK)

Children with special needs (ABK) are children who deviate significantly from normal criteria. There are three different categories of developmental disability, namely: *impairment, handicapped,* and *disability*. Seen from the time level, it was recognized (1) *temporary ABK:* children who deviate temporarily (not permanent) due to disaster or chaos trauma, concentration difficulty caused by various violence, or reading inability caused by teacher fallacy; and (2) *permanent ABK*: children who get permanent difficulties due to several barriers in vision, hearing, intelligence, physical, emotional, or social condition, or due to permanent disabilities since and after the born.

### The Classification of ABK

In terms of developmental disability, ABK can be classified into:

a. **Children with impairment of physical development**
   Children with impairment of physical development can be grouped into (1) **blind children**, (2) **deaf children**, (3) **disabled children**: disable in cerebral system and disable in muscular and skeletal system, (4) **children with emotional and behavior impairments**: due to either emotional or social condition.
b. **Children with intelligence impairment**
   It is classified into children with mental impairment, gifted children, slow-learners, and children with special learning difficulty.
c. **Autism children**
   It is classified based on either social interaction or presence of deviation.
d. **ADHD/GPPH (Attention Deficit Hyperactivity Disorder/*Gangguan dalam Pemusatan Perhatian dan Hiperaktivitas*)**

### Inclusive Education

Inclusive educational program set by government is one of educational service improvements. It allows ABKs to learn along with


ISBN: 978-602-74576-0-7

normal students in regular school and hence provides a solution for special education.

The philosophy of inclusive education treats human equally despite differences. It strives to respect differences and unique characteristics in each individual, whoever they are, apart from their ability or inability, their socio-economic backgrounds, races, cultures and languages, religions, or genders. They should be united in the same school community (Shaeffer, 2005).

**The Implementation of Inclusive Education**

ABK placement in regular school demands several arrangements to create a supporting condition in fulfillment of ABKs' needs. The arrangement covers: (1) professional teachers, who are kind and have deep understanding about inclusive education. The teachers should be able to create friendly learning and to respond to both various classroom situations and students' differences; (2) ABKs should remain in a regular class all day; (3) a flexible curriculum and learning process; (4) friendly and easily-adapted school environment which is intentionally designed for all students and provides ease as well as supports to ABK learning activities; (5) special need teaching assistant (GPK) who could provide guidance and treatment towards ABKs who experience difficulty in keeping up with the learning process in a regular class; (6) resource center availability as supporting system to help run the learning process. It is an institute which helps nearest inclusive schools.

The implementation of inclusive education remains raising pro-con dilemma: either supporting or rejecting it. However, the regulation of this inclusive education has been set by considering these followings: (1) there has yet been no empirical testimony supporting an assumption that special education service outside the regular class shows better condition for children; (2) special school costs relatively more expensive than regular one; (3) the use of special label in special school impacts children; (4) many ABKs could not get education due to the absence of special school nearby; (5) ABKs should get used to living among the community.

**METHODOLOGY**

The implementation of school-based lesson study began with workshop about ABK learning in Grade I, which covered several materials such as: understanding of ABK development, types of ABK, the characteristics and causing factors of each type, how to manage ABK instructional activities, and followed by intensive training and guidance to design lesson plan as well as individual learning program (ILP) to support the defined learning process. The details of the implementation are presented as follows:

1. Conducting need assessment to recognize teacher's prior competences in establishing the ABK instructional activities, as well as defining the materials for the training.
2. Holding seminar with three major concerns: ABK recognition, how to design ABK instructional activities, and how to design ABK lesson plan.
3. The guidance in implementing lesson study was conducted in three cycles. Each cycle consisted of 4 activities abbreviated into PDCA: P (*plan*), D (*do*), C (*check*), and A (*act*). The phases of activities are described as follows:
   - **Planning (Plan)**: in planning phase, 6 teachers were grouped in *lesson-study* team, collaborating to design lesson plan and ILP which reflects ABK individual learning. The results become consideration of lesson-plan draft to create concrete planning in ABK individual learning.
   - **Implementing (Do)**: in second phase, there are two main activities: (1) the implementation of ABK individual learning done by a selected teacher to conduct learning based on designed lesson plan/ILP; and (2) observation process done by the members of *lesson-plan* team.


ISBN: 978-602-74576-0-7

- **Reflection (Check)**: this phase was done in form of group discussion, it was continued to the feedback and argument session delivered by observers along with the verification of observation evidences. The next phase depends on observable analysis acuity on learning process that had been done.
- **Follow-up (Act)**: from the reflection phase, there might be considerably number of new knowledge or precious decisions to improve the upcoming learning process in both individual and managerial levels.

## FINDINGS AND DISCUSSION

Lesson Study (LS) is a training or guidance model for education profession through collaborative and sustainable learning discussion based on collegiality principles: helping each other and mutual learning for better learning community.

Lesson study at SD Muhammadiyah 4 Batu was programmed in 3 cycles consisting three different ABK instructional models, covering: (1) individual learning in a special class; (2) ABK instructional activities done by a teacher in a regular class; (3) ABK instructional activities in a regular class with the help of GPK. Every cycle consisted of 4 activities abbreviated into PDCA: P (*plan*), D (*do*), C (*check*), and A (*act*). It was conducted from October to December 2014.

### Implementation Report of Lesson Study

The activity began with a need assessment aiming at measuring both condition and understanding level of teachers related to ABK instructional activities. Subsequently, the comparative study was conducted in SLB Pembina Lawang and Pilot Inclusive-Primary School to give a better understanding about effective ABK instructional activities in special school and how ABK learning is implemented.

Three cycles in Lesson Study consisted of *Plan, Do, See* in ABK instructional activities. These three cycles are presented below:

**Cycle I**

In cycle I, ABK instructional activities were designed in a special classroom in which an ABK student would individually learn with a special teacher.

**a. Planning (*Plan*)**

The activity was conducted on Friday, October 31, 2014 attended by 10 teachers of inclusive class who were grouped into *Lesson Study* team. In this cycle, Mrs. Linda Yani Pusfiyaningsih, S.Psi, was selected as a model teacher delivering the designed lesson plan towards all members of *Lesson Study*. There were several advices from the members regarding the lesson plan. Lesson plan should be used once students have got into regular class. The material served in this meeting was understanding number 1 – 10. The learning indicators that should be achieved were mentioning number 1 – 10, completing the counting test from 1 – 10, counting the number of objects which trigger curiosity and students' independent learning in completing the test, and writing number 1 – 10. The teacher also developed relevant media based on learning objectives, student's ability and characteristics.

**b. Implementing (*Do*)**

It was conducted on Saturday, November 1, 2014. Learning process was done individually by an ABK student of Grade I named DSI. Data of the student as subject of individual learning was included into Grade V – *Defective* category (mental and intelligence capabilities are listed below average based on CPM test). The good point of DSI was that he easily gets used to his friends or surrounding people despite his difficulty in pronunciation.

Learning process began with stimulating the student to mention media (card number from 1 to 10) showed by teacher and DSI started to spell afterward. In spelling phase, DSI could mention all numbers coherently. However, as those cards were set randomly, DSI began to get confused. After having been shown pictures along with number attached on, DSI began to count them correctly since picture media could concretely facilitate the student to count. Afterward, the teacher gave LKS (worksheet).

During learning process, there are several observable behaviors that should be concerned on:

- The subject's concentration is often distracted.


ISBN: 978-602-74576-0-7

- The subject has not yet been able to distinguish numbers.
- The subject has not yet been able to recognize colors.
- The subject also has vocal cord impairment, and hence leads to communication failure..

**c. Reflection (*See*)**

To a large extent, implemented learning process had already complied with lesson plan which was designed. There are still, however, several things to focus on:

- The student has not yet concentrated in early learning so that teacher should firstly focus on attention-grabber and lead it into concrete objects.
- Interference coming from outside, such as friends who suddenly come over and make some noise, leading to the split concentration. Therefore, the student should be placed in a special classroom privately.
- When the student has not yet grasped the concept taught, the teacher should provide a correct answer/correct a mistake directly during the learning process due to the important issue related to long term memory. Moreover, the teacher could also provide a voice imitation/the use of concrete objects as media to assist the student to recall the materials.

**Cycle II**

In this cycle, ABK instructional activities were set in a regular classroom in which ABK students would learn along with other students under the control of one teacher.

**a. Planning (*Plan*)**

In cycle II, Mrs. Dian Kurniasih, S.Psi acted as a model teacher in the class. Planning was conducted on Friday, November 7, 2014. It was attended by 8 teachers of inclusive class to design the lesson plan. The materials delivered were Theme I Sub-theme II about "My Body" in Learning Instruction III for Grade I. Learning indicators that should be achieved were students are able to mention the number of objects based on defined numbers (1 – 5), students are able to write down numbers based on a number of objects, students are able to obey the rules while working on the task, students are able to imitate reading simple descriptive text about parts of body. There are several additions to focus on:

- Brief explanation about the case. In this cycle, the subject was ABK categorized as *slow learner* and having disability in hearing and pronunciation.
- Individual Minimum Standard Competence (KKM), Class KKM, and Case KKM should be noticeably distinguished.
- The teacher should use learning media in the form of card number beside concrete objects.

**b. Implementing (*Do*)**

It was conducted on Saturday, November 8, 2014. The subject in this cycle was an ABK student named RIF. Based on CPM test, RIF is categorized as a *slow learner*. He was with normal birth but suffering from hearing impairment at the age of 5 leading to pronunciation difficulty. In school, the subject was very active and often disturbed others. However, he lacks motoric movement. In terms of academic performance, the subject found it difficult to count, especially in addition and subtraction, reading, and writing down letters. Learning process in this cycle was not optimally established due to the overloaded number of ABKs in the classroom (6 children in total). Besides, the classroom did not allow creating a better learning climate.

C. **Reflection (*See*)**

Generally, learning implementation had already complied with lesson plan designed previously yet it was not optimally established. In lesson plan, it had not yet covered any scientific approach as a typical characteristic of Curriculum 2013. The teacher got difficulty in *attention-grabber* due to overloaded number of ABKs in the classroom. Several notes have been composed related to cycle II:

- Despite less materials delivered, learning process was very meaningful for students for it had been set based on student's ability.


ISBN: 978-602-74576-0-7

- Preparation of teaching media and motivation delivery had been well-established.
- Once students showed less attention towards materials, the teacher should reinforce it by providing games, songs, etc.
- Classroom management should be improved in order to manage both ABKs and non-ABKs so that teaching process could run effectively.

In this reflection phase, materials about ABK learning in a regular classroom was delivered through screening a film of ideal ABK instructional activities along with adequate facilities.

**Cycle III**

In this cycle, ABK instructional activities were set in a regular classroom in which ABK students would learn individually with the help of GPK.

**a. Planning (*Plan*)**

In cycle III, Planning was conducted on Tuesday, November 25, 2014. It was attended by 9 teachers of inclusive class. Ms. Dita Ayu Maulida acted as a model teacher delivering materials, with the theme: "My School and I", the Sub-theme: "Extra-curricular" Learning Instruction IV. There were numerous additions on lesson plans, such as: informing the learning objectives in early stages of teaching, the use of collaborative work in managing musical instruments, single-meeting lesson plan with special skill assessments for ABK students, and the needs for Special Need Teaching Assistants (GPK) in the classroom.

**b. Implementing (*Do*)**

It was conducted on Wednesday, November 26, 2014. Materials delivered were "My School and I", the Sub-theme: "Extra-curricular" Learning Instruction IV for Grade II. The subject in this phase was KAA.. Moreover, he had adequate motoric movement but less paying attention to the teacher. In term of academic performance, the subject had been able to count, complete the operations: additions and subtraction, but experienced reading and writing difficulties.

Learning implementation in this phase was not established optimally due to student's lack of attention. In early learning process, the teacher was less prepared for classroom management: materials had been delivered despite student's unpreparedness. While stimulating students to sing, the teacher seemed nervous and could not remember the song lyrics, and thus distracting student's concentration. The core activities could not be done based on lesson plan due to over-attention that each student gave to all music instruments.

**c. Reflection (*See*)**

Generally, learning implementation had already complied with lesson plan designed previously yet it was not optimally established, teaching media should have been prepared well. Instead of utilizing tambourine as the musical instrument, the teacher should have utilized other objects such as bottles filled or pebbles.

To ease student's management, sitting arrangement should have been set in order to make observable situation for all students during the learning process. In reflection phase, Mrs. Kustiaun as a professional (expert) provided an effective model for ideal ABK instructional activities. There are three concerns that should be well-focused on to maximize the teaching process:

- Time adjustment: dealing with ideal time for ABKs to learn
- Method adjustment
- Material adjustment (the relevant ones to achieve the learning objective).

These results could contribute the teaching evaluation related to: advantages, drawbacks, and opportunities in primary school as inclusive education provider in effort to achieve the optimized ABK instructional activities.

**Discussions**

Lesson Study program conducted in SD Muhammadiyah 4 Batu was based on the school's status: under the Muhammadiyah management. This school has become an inclusive school and has 30 ABK students in total. Due to the less concern of local education authority, which in this case is Batu government, towards the needs for GPK, this school


ISBN: 978-602-74576-0-7

has independently established inclusive education by attending many training programs or *KKG*.. Hence, this lesson study will surely provide new experiences on enhancing knowledge and skills through collaborative work. Teaching practices for ABK instructional activities in cycle I were conducted in a special classroom in which the teacher gained new experience and understanding of ABK individual learning. It was well-implemented. In cycle II, the teacher team involved in lesson study gained experiences in the way how to plan and establish ABK instructional activities in a regular classroom in which ABK students should learn along with other normal students under the control of one teacher. Under the limited knowledge, understanding, skills, and facilities, the model teacher had established better planning and teaching implementation optimally. Therefore, to cope with the problems, the film screening was established in reflection phase in order to inform teachers about how the ideal ABK classroom should be, and how the ideal ABK instructional activities in a regular classroom are supposed to be.

In cycle III, ABK instructional activities were set in a regular classroom, but the ABK student was still under the control of GPK individually. Teaching process in this cycle was collaboratively well-prepared. However, in implementation phase, it did not run well despite the fact that the ABK student had learned well under the control of GPK.

**CONCLUSSION**

School-based lesson plan conducted in SD Muhammadiyah 4 Batu was established based upon the plan. Teachers playing the greatest role in teaching and learning process gained beneficial experiences related to ABK instructional activity development. ABK instructional activities in cycle I were set in a special classroom in which one ABK student learned individually under the control of a special teacher. In cycle II, ABK instructional activities were set in a regular classroom in which the ABK student learned along with other normal students under the control of the teacher. Last, in cycle III, ABK instructional activities were set in a regular classroom in which ABK student learned individually under the control of GPK. All these cycles provided teachers a better understanding of ABK instructional activity management Due to these considerable advantages, it is necessary to conduct further implementation in other classrooms and schools. The sustainable guidance from University of Muhammadiyah Malang is significantly required for a better independent inclusive education in SD Muhammadiyah 4 Batu.

***REFERENCES***

Mulyono Abdulrahman (2003).*Landasan Pendidikan Inklusif dan Implikasinya dalam Penyelenggaraan LPT*K. Makalah seminar PLB Ditjen Dikti. Yogyakarta, 26 Agustus 2002.

Smith.J David, 2006, *Inklusi ; Sekolah Ramah Untuk Semua*, PT. Nuansa Bandung

Sudrajad, A. 2008. *Lesson study* untuk meningkatkan proses dan Hasil Pembelajaran. http://akhmadsudrajat.wordpress.com/2008/02/22/*lesson*-study/.

Syamsuri, I. dan Ibrohim. 2008. *Lesson study* (Studi Pembelajaran). Malang: FMIPA Universitas Negeri Malang.

Undang-undang Nomor 20 tahun 2003 tentang Sistem Pendidikan Nasional.

PERMENDIKNAS nomor 70 tahun 2009 tentang Pendidikan Inklusif

UNESCO, 2004, Buku Pendidikan Inklusif Jilid 1 -6 ; Direktorat Pembinaan Sekolah Luar Biasa, Dit Jen Manjemen DIKDASMEN, Depdiknas, Jakarta


ISBN: 978-602-74576-0-7

# DEVELOPMENT TRAINING MODEL FOR PRIMARYSCHOOL TEACHER TO SUPORT THE IMPLEMENTATION OF 2013 CURRICULUM

**Endang Poerwanti**
FTTE, University of Muhammadiyah Malang

**ABSTRACT**

The changing on the structure of the national curriculum is supposed to bring some effects on the teachers in terms of role, teaching portion, and the training programs that are objected to upgrade the term of teacher professionalism. Along this time, the training programs were and are more concerning on the establishment of the instructional equipment. Meanwhile, based on the regulation agreed within the 2013 Curriculum, the instructional activity has been readily arranged by the Education Ministry in the the main books intended for both teachers and students. In addition, this study aimed at making a development on the models and the materials for supporting the training programs and the implementation of 2013 Curriculum.

Keyword: The Training Model of 2013 Curriculum

## INTRODUCTION

Curriculum is a learning program that is arranged and implemented for successfully achieving the particular educational purposes. The development on the 2013 Curriculum constitutes the extent of the Competency-Based Curriculum which had been implemented in 2004 and of the School-based Curriculum (KTSP) 2006. The power of 2013 Curriculum covers three major competencies including affective, cognitive, and psychomotor integrally. In its implementation, the teachers are mandated to be the determiner for reaching the success of this curriculum implementation so that the modification on the curriculum will positively affect the teachers' role and portion of teaching as it effectively affects the training needs for upgrading the teachers' professionalism. When the KTSP was being implemented, the training program was more focussing on how the teachers arranged the instructional material; while, in 2013 Curriculum, any materials for instructional activities have been readily prepared within the teacher and student main books.

The implementation of the 2013 Curriculum is level-based and is projected for 30% units of education going from the city to the regency. Apart from the occurrence of the number of problems affected from the agreement taken by the stakeholders within the trials and the restricted implementation, some of cities and regencies are officially to declare that they keep adapting the 2013 Curriculum of which facility and fund are officially from the local government as well as from the school self-supporting funding. Further, some various training programs covering any levels and types are conducted. However, counter-productively, the training programs have not been significant yet in educating the teachers. It is completely reflected from the number of the challenges experienced by the teachers in implementing that new curriculum.

The parameter of successful achievement in the educational activity and training is influenced by some components; they are training strategies and the curriculum materials. Both, strategy and material hold the crucial role in order to successfully arrive at the purpose of training program. Therefore, the model and material of training program, in the way of development, are required to allude to the needs and the characteristics of whom the training program is intended to as well as to point out the training model in effort to set readiness in implementing the 2013 Curriculum.

The major issue underlying this study goes to how the training models are intended for the primary schools in the 2013 Curriculum. In addition, the issue will be comprehensively subdivided as follows: (1) how the models that had been implemented in supporting the 2013 Curriculum are; (2) what differences that entailed the role and the teaching portion in KTSP and 2013 Curriculum are; (3) what


ISBN: 978-602-74576-0-7

difficulties experienced by the teachers in implementing 2013 Curriculum are; and (4) what kinds of effective models that are supposed to be able to support the teachers' competencies within the implementation of the 2013 Curriculum are.

The models and materials development intended for establishing the training program are of urgency to conduct in addition to enhance the teachers' competencies in 2013 Curriculum in order that the coming training programs are going to successfully upgrade the teachers' readiness in maintaining the education quality of the primary schools, especially in implementing 2013 Curriculum.

## LITERATURE REVIEW

### 1. The Definition of Curriculum

According to Regulations No. 20 2003 verse 1, curriculum constitutes the set of plans and regulations alluding the purposes, contents, materials, and the procedures that are formulated as the fundamental for arranging the instructional activity in terms of reaching out the educational purposes. Therefore, every single modification regarded to the purposes and other corresponding factors will be entailed by the modification of the curriculum as well. Due to the fact that the society will always actively develop, the curriculum is also supposed to be modified in effort to fulfill the society's needs. Essentially, the curriculum is essentially viewed from some different perspectives; they are: (1) *Curriculum as Subject Matter* that draws out the structure of the content that will be taught; (2) *Curriculum as Experience* that constitutes a set of planned experiences in effort to achieve the educational purposes; (3) *Curriculum as Intention* constituting the plans, purposes, objects, and its evaluation; (4) *Curriculum as Cultural Reproduction* that concerns on the societal culture of particular community; and (5) *Curriculum as 'Currere'* in which the curriculum underlies the experience and the interpretation on life experience.

### 2. *The Elements of 2013 Curriculum*

The elements related to the 2013 Curriculum cover the following aspects: the standardization of students' competencies, the standardization of content, the standardization of process, and the standardization of assessment (Tutorial Handout of 2013 Curriculum Training, 2014). (1)The modification on the standardization of the students' competencies includes developing and balancing the soft skills and hard skills that cover the terms of affective and psychomotor competencies. (2) The modification on the standardization of content concerns at the instructional materials in which the competencies, previously derived from the materials, are altered to be the fundamental from which the materials are derived. In addition, the instructional materials are expanded through accommodating the local, national, and international contents. (3) The changing on the instructional process formulates the scientific approach which requires the students to do observing, questioning, processing, communicating, summarizing, and creating through the integrated thematic instructional activity based on the characteristics and competencies. (4) The changing in terms of assessment includes the variation of assessment procedures that are based on the test and non-test (portfolio), the assessment of the process and output through authentic assessment, and the criteria-based assessment approach focussing on the criteria of the minimum accomplishment.

## RESEARCH METHODOLOGY

This research was designed within two years. In the first period (in 2004 to 2005), this research was objected to achieve these followings: (1) to describe the various models of training programs intended for primary school teachers that had been implemented to support the 2013 Curriculum; (2) to describe the analysis result of the differences on the role and teaching portion of the teachers regulated within KTSP and the 2013 Curriculum; and (3) to analyze the number of differences experienced by the teachers in implementing 2013 Curriculum; and (4) the development of the drafting model and the materials of training programs and the implementation of the 2013 Curriculum. In the second period, the focus took place on the trial of the models and the materials for


ISBN: 978-602-74576-0-7

the Teacher Training programs in implementing the 2013 Curriculum that was arranged in the mechanism of community service program in Muhammadiyah Primary Schools throughout Malang.

Moreover, the location was pointed out purposively by taking Malang City and Madiun Regency as the regional representatives. In every single city and regency, there were 10 primary schools taken. Those 10 schools comprised five schools having been selected as the objects of implementation of the 2013 Curriculum since 2013-2014 and five schools that were implementing the 2013 Curriculum in 2014-2015. There were four teachers and one single principal taken from each sample school assisted by the two National Instructors in each region. In terms of collecting the data, three methods were accommodated; they were: (1) Questionnaire which was used in describing the teachers' perception about the models and the materials for the training programs that had been attended in the implementation of 2013 Curriculum and also about the difficulties and the challenges that had been experienced; (2) Focus Group Discussion that was conducted amongst the National Instructor, Principal, and the representative of the teachers in addition to make an analysis on the differences on the role and teaching portion in the implementation of the 2013 Curriculum compared to the former curriculum as well as to analyse the expected training materials and models.

To analyse, the researcher dealt with the numerical data, whether in the form of percentage, frequency tabulating, and cross tabulating, quantitatively. Meanwhile, for the data that were unable to be classifiably communicated were going to be presented and analysed qualitatively based on the problem components and the research purposes.

## FINDINGS AND DISCUSSION

### 1. The Models and Materials for Training Program to Support the Implementation of 2013 Curriculum

Nationally, the models and materials intended for training program had been structurally arranged in detailed through implementing the level-based training strategy as follows: (1) The Refreshment of the National Speaker (NS) was conducted by the team of the Centre of Curriculum Developer. In addition, NS comprised the lecturers of the Incorporated Company Widyaswara LPMP and the number of senior teachers who were considered eligibly competent. (2) The training of the National Instructor that was assisted by the National Speaker recruited the senior teachers who were considered competent in training and ready to be sent out to the regencies for being intensively trained. Therefore, (3) it was National Instructor team that was mandated to train the object teachers assisted by Widyaswara LPMP so that the success was going to essentially depend on the models and the materials of training program in upgrading the teachers' professionalism in implementing the 2013 Curriculum.

Many scholars confess that the 2013 Curriculum is the one that can be proud of since it has a proportional equality in case of enhancing the cognitive, affective, and psychomotor aspects. Moreover, in the primary school, the affective development allocates the greater portion without leaving the science aspects behind. In addition, the government had already prepared the implementation of the 2013 Curriculum maximally, whether through preparing the materials, conducting the training programs intended for any levels, preparing the main books for teachers and students, and providing with other privileges. The technical issue was that there were so much inappropriateness between the selection process of National Speaker and the National Instructor and the set of the fixed criteria. Consequently, it caused a serious problem related to the fixed materials which had been conceptualized by the Centre. In fact, there were so many senior teachers who were not able yet to understand the content of the materials; accordingly, when the senior teachers were trained, there was no well preparation on them. Besides, since the teachers' mindsets were difficult to change, there were so many actions of refusal when the 2013 Curriculum was disseminated. As a consequence, there was no optimum significance resulted from conducting the training programs and implementing the 2013 Curriculum.

### 2. The Analysis on the Changing of Teachers' Role in Implementing the 2013 Curriculum


ISBN: 978-602-74576-0-7

The changing on the teachers' role in implementing the 2013 Curriculum and on the structure of 2013 Curriculum was inseparable because the teachers constituted the determiner for reaching the success of implementing the curriculum. There were four basic changes occurring in the 2013 Curriculum covering the Standardization of Students Competencies, the Standardization of Content, the Standardization of Process, and the Standardization of Assessment.

a. **The Changing on the 2013 Curriculum covering the Standardization of Students Competencies:** The modification on the teachers' roles was in the same pole as how to understand and develop the affective aspect through the instructional activity. Recently, the teachers used to emphasize more on prioritizing the cognitive aspect in terms of the process and the output of instructional activity. Hence, the difference took place on the way of defining the core competency 1 and 2.
b. **The Changing on the 2013 Curriculum covering the Standardization of Content**: In this case, the teachers were required to be able to be competent in doing the instructional analysis that concerned on the core and basic competencies. Besides, the indicator explanation regarded to the core and basic competencies was the manifestation of the procedure of understanding the teachers' books, guiding the students within the instructional activity through the students' books, and arranging the instructional plan that was based on the cultural and school contexts. It was because of the process and assessment of the instructional aimed to upgrade the significant efficiency and the effectiveness for successfully achieving the fixed students' competencies.
c. **The Changing on the 2013 Curriculum covering the Instructional activity:** In this case, the changing on the teachers' role was significantly useful, especially in maintaining the instructional process. In addition, the changing, going from the KTSP to the 2013 Curriculum, did need the alteration of the teaching mindset and culture regarded to how the teachers were able to implement the scientific approach model, the student-based instructional, the activity-based instructional, and also the active-student instructional activities through formulating the Discovery Learning, the Project-Based Learning, and the Problem-Based Learning.
d. **The Changing on the 2013 Curriculum covering the Assessment needs** constituted: 1) the accommodated assessment approach belonged to the criteria-based assessment for completing the criteria of the minimum accomplishment. In addition, 2) the scope of the assessment procedure had evolved from the testing (merely measuring the cognitive aspect based on the result) to the authentic assessment which was comprehensively formulated to assess anything from the beginning (giving the input), process, and the output resulted from the instructional activity. In addition, the output covered affective, cogntive, and psychomotor aspects. In fact, the authentic assessment was formulated though the working, project, portfolio, and written assessments.

**3. The Teachers' Difficulties in Training and Implementing the 2013 Curriculum**

Some out of 100 teachers who had submitted the questionnaire admitted that the main problems experienced were: (1) difficulties in assessing (81%); (2) difficulties in implementing the integrated thematic instrutional model (78%); (3) regarding to the teachers' competencies and difficulties in implementing the very new thing (64%); and (4) the insufficiency of books intended for teachers and students (48%). In addition, to evercome those problems, some alternatives were offered, such as: comprehensively explaining the materials when the training program is run, creating a new changing on the training method through assistance procedures, providing with the concrete examples, and also assisting the process of punctually distributing the books for teachers and students. In this case, the issues on the materials for training program should not be totally maintained; they only need to be clearly explained by giving the illustrations, concrete


ISBN: 978-602-74576-0-7

modellings, and examples through implementing the procedural techniques.

4. **The Development of the Teacher Training Models and Materials in 2013 Curriculum**
   The truly expected training model is the model which can provide the trainees with any applicable modellings and examples, not only the training that was presented inside the room. This was conducted in order that this model was initiated by conducting the field analysis to see the teachers' comprehensions in implementing the integrated thematic instructional. In addition, the tutorial books' arrangement alludes to the system and the effects of the trainings that have been already acquired, on the individual barrier within the integrated thematic instructional process through scientific approach, on the plan and the process of authentic assessment, and also on the management of the curriculum implementation.

## CONCLUSION

In accordance with the preceding explanations, some conclusions are to be drawn as follows:

1. The training programs within the implementation of 2013 Curriculum were level-based, starting from the Refreshment of the National Speaker, the Regional National Instructor training, and the Training for the object Teachers of the Regencies/Cities/Schools.
2. The changing on the teachers' role in the implementation of 2013 Curriculum referred to the changing of the standardization of the Students' Competencies, Process, and Assessment.
3. A number of challenges faced by the teachers in implementing the 2013 Curriculum included any difficulties in terms of assessing, implementing the integrated thematic instructional, reinforcing the competencies in trying the very new things, and the terms of the lateness and the insufficiency of the main books intended for the teachers and students.
4. The training model expected by the teachers constituted any models that are able to provide them with any kinds of applicable modellings and examples, not only within the training room, but also within the life experience. After the model was procedurally implemented, the discussion and the simulation were conducted regarded to the stages of the 2013 Curriculum implementation.

## SUGGESTIONS AND RECOMMENDATIONS

In order to keep the quality of the 2013 Curriculum implementation effectively and efficiently, any supports are urgently needed. Those kinds of supports can be: (1) giving the consultation, modelling, personal training and personal coaching (training) for the specific respects in implementing 2013 Curriculum formally (in form of lecturing) or informally (via online); and (2) giving the contextual solution in overcoming any problems that are experienced when implementing the 2013 Curriculum in each school.

## REFERENCES

Badan Standar Nasional Pendidikan. (2013). *Peraturan Menteri Pendidikan Nasional RI Nomor 65 Tahun 2013 tentang Standar Proses.* Jakarta

Badan Standar Nasional Pendidikan. (2013). *Peraturan Menteri Pendidikan Nasional RI Nomor 66 Tahun 2013 tentang Standar Penilaian.* Jakarta

Badan Standar Nasional Pendidikan. (2013). *Peraturan Menteri Pendidikan Nasional RI Nomor 67 Tahun 2013 tentang Struktur Kurikulum SD/MI.* Jakarta

Kementerian Pendidikan dan Kebudayaan. 2014. Materi Pelatihan Guru Implementasi Kurikulum 2013 . Jakarta: Kemendikbud.

Undang-Undang RI Nomor 20 Tahun 2003 tentang *Sistem Pendidikan Nasional*


ISBN: 978-602-74576-0-7

# GUIDED TRAINING MODEL AND TEACHER'S COMPETENCIES IN DEVELOPING EVALUATION STRATEGIES: ECE CURRICULUM OF 2013 FRAMEWORK

**NOVI YANTHI**
*Prodi S1 PGSD, Universitas Pendidikan Indonesia,*
*Jl. Raya Cibiru km 15Bandung, 40393, Indonesia*

**MARGARETHA SRI YULIARIATININGSIH**
**TUTI ISTIANTI**
*Prodi S1 PGPAUD, Universitas Pendidikan Indonesia Kampus Cibiru,*
*Jl. Raya Cibiru km 15, Bandung, 40393, Indonesia*

Abstract

**This research aimed to improve teacher's competencies in developing evaluation techniques and instruments regarding the implementation of Curriculum of 2013 in early childhood education (ECE). Guided training model deployed in this study was a modification of direct instruction learning model proposed by Joyce and Weil. During four consecutive phases of freer exercise A1; structured exercise B1; freer exercise A2; and structured exercise B2 teacher develop evaluation techniques and protocols according to the indicators written in the Curriculum of 2013 of ECE. Research method used was single case research-ABAB design in which one teacher of TK Laboratorium UPI Kampus Cibiru was involved as research sample. Totally, there was 18 lesson plans (RPPH) designed along with evaluation instruments. The study portrayed teacher's skills in developing assessment that focused mainly on the developmental fields of Kompetensi Inti (3) and (4) namely knowledge and skills, particularly those relevant with science process skills and motor skills. Protocols to gather data included product assessment proforma adopted from teaching practice (PPL) assessment sheet used at Prodi S1 PGPAUD UPI Kampus Cibiru and a list of questionnaires. The result indicated that teacher's skill in developing evaluation has increased significantly during the study particularly within structured exercise periods (B1 and B2). At the commencement of the research (phase A1), data showed that teacher did not have sufficient knowledge and skills at designing evaluation protocols relevant with the indicators and to further develop it into a clear and applicable stages of strategies. At the beginning of the study (A1) the average gained score was 0.00; while at phase B2 2.00 (moderate); next in phase A2 2.22 (moderate); and latter phase (B2) was 2.75 (high). The most difficult part of developing evaluation was to describe the rubrics based on Kompetensi Dasar of related fields in the curriculum. Further study is recommended to apply similar model within a bigger sample size and to involve teachers' meeting/forum, such as Gugus, in the effort to improve teachers' professional competencies which involves skills in designing evaluation strategies.**

Keywords: teacher training, early childhood education, evaluation strategy, national curriculum

## Introduction

d. Assessment in Early Childhood Education

Teacher plays important role as described in UU Guru dan Dosen pasal (1) and (4) that implies that teacher should have adequate knowledge of pedagogic, students' need as well as their unique characteristics, education administration, curriculum, evaluation, methods or strategies of teaching, instead of being capable in delivering lesson.

Evaluation in early childhood setting must be designed to be authentic to gather comprehensive data about children's progress and to meet the ten developmentally appropriate practice (DAP) assessment standard (Bagnato, 2007). Children of young age are curious about their natural surroundings, which is represented in the joy of exploration through play (Smith, 2010; Abidin, 2009; Oliveras and Oliveras, 2014). So, evaluation in early childhood education (ECE) should be better


ISBN: 978-602-74576-0-7

administered in play atmosphere. During explorative play, children develop their knowledge and understanding of natural objects and phenomenon, strengthen communication and social interaction, as well as maximize their body growth along with their motor skills (Cheatum and Hammond, 2008; Juwita, 1997; Thomson and Wolfinger in Yulianti and Dewanti, 2008; Johnston, 2005; Harmer, 2012; Eliason and Jenkins, 2008: Trnova, E & Trna, J, 2015; and Samsudin, 2008).

Furthermore, to construct evaluation instrument, teacher must pay attention on the indicators of the competencies in the curriculum of 2013 ECE. In addition, since assessment is a way to find out whether children have acquired such knowledge, skills or behavior, so it is important to mention measurable and observable behavior of children in their natural environment according to the standards written in the curriculum aligned to the national outcome benchmarks (Bagnato, 2007). In addition, teacher should be skillful in doing observation to collect evaluation data because it is one of the possible evaluation techniques for children aged 5-6 since most of them are still not able to take written test (Harun, et.al. 2014).

Relevant to the demands of 21st century life, payload of national curriculum of ECE 2013 contains four developmental fields of spiritual, social, knowledge and skills (which embedded science knowledge and process skills). This has been an intriguing issue of ECE education in many countries (Ulu and Kiraz, 2014). In addition, teachers are also expected to be competent in the design of authentic assessment (Bagnato, 2007; Monkeviciene, O and Autukeviciene, B, 2015) as it is addressed along with the scientific process approach according to the curriculum.

**e.** Teacher Professional Development

Teachers' professional development in Indonesia includes the increasing quality of elementary and early childhood education. According to Hammerness et.al (in Hammond and Bransford, 2005; Darling-Hammond in Abidin, 2009; Raths and the Ministry of Education in Sukmadinata, 2008), the development of teachers' professional competencies as adaptive expert should be facilitated as the embodiment of lifelong learning . This can be facilitated through regular meetings, workshops, or training. Attempts used to empower teachers both via in-service and pre-service training are through lesson study, collaborative research, teacher forums (KKG in elementary schools level or Gugus in early childhood education level).

In this research training is delivered to teacher in professional job in the form of guided method (Eggen and Kauchak, 2012; Joyce and Weil, 1996). Guided training is a learning strategy developed and modified from direct instructions. It comprised four consecutive stages namely: freer exercise A1; guided exercise B1; freer exercise A2; and guided exercise B2.

Nevertheless, such efforts would not give any better influence if some of the components involved do not function well. As an example, an indication of the problem, many teachers lose the essence of teachers' meeting (teachers' forum), or the school principal does not have any concerns regarding to the improvement of his/her staffs professional competencies.

**f.** Research Goal

***This research aims to determine the improvement of teacher's competencies designing evaluation strategies application applied.***

Method

g. Method of research

The research methodology was quasi-experimental with single case ABAB design which studied the characteristics of teacher as an individual unit (Cohen, Manion and Morrison, 2007). Observation was repeated at different phases during a certain period (phases A and B) in order to ensure the effectiveness of the intervention in which guided training employed.


ISBN: 978-602-74576-0-7

**h.** Source of Data

This research was conducted at TK Laboratorium UPI Kampus Cibiru. Subject of the research was a teacher of Group B.

Protocols used to gather data about teacher's competency was adopted and adapted from IPKG 1 which has been utilized in PPL program of early childhood education program at UPI. To support data accuracy, documents of lesson plans which included evaluation instruments and log book consisted feedbacks (reflective evaluation sessions) were also filed. Another form of data included interview transcript related with teacher's knowledge background of evaluation strategies mainly those can be used to assess scientific knowledge, science process skills, social skills, and motor skills.

The average score in IPKG 1 (focusing on evaluation) of each consecutive observation of four phases was distributed into graph to determine the effectiveness of guided training.

**i.** Data analysis

The effect of guided-training on teacher's competency was determined by analyzing baseline trends during phase A (freer practice) and compared it to the following curve along two implementation stages of guided training (phase B). Moreover, in order to obtain accurate baseline data, the observation in phase A was repeated four times. Then to ensure the effectiveness of the model, the training in phase B was also repeated four times. In the next stage, the repetition of phases A and B performed four and five times respectively.

Analysis of qualitative data was by a search of patterns related with evaluation techniques and protocols in all interview scripts, log book, and lesson plans documents collected.

Results and Discussion

**j.** Results and Discussion

Based on the research result, it was determined that teacher found difficulties in designing evaluation instruments along with the strategies used. Even in the first phase teacher did not show any skills in determining proper instruments consisting indicators relevant to the national standards. The observed average score of the first phase was 0.00 (see Figure 1). In all lesson plans of phase A1 teacher only determined the standards stated in the national ECE curriculum of 2013 yet missed to define detailed relevant competencies or indicators. Protocol used was only check list whether children fulfilled the aims of learning or not. Unfortunately, the same thing tended to resemble in some of the following phases.

Yet, this finding was no longer found in the next three phases. During the second phase the determined average score increase to 2.00. Compared to the baseline data (A1), we could say that the effect of guided training was not significantly improved teacher's skill in developing assessment. There was a decrease from the second to the third until the last meeting of the first phase of guided training (B1). This was probably due to insufficient teacher's capability to opt the suitable variety techniques to monitor children's progress in science process skills (particularly observing skills), social skills and motor skills (focused on gross motor skills). The reason behind the significant difference of the average score between the second and the last two followings might be the introduction of video coaching and training which included the sample of lesson plans from relevant research at the initial action of B1-2. In the teacher's lesson plan there was similarity of strategy and indicators developed regarding to the evaluation of science process skills and motor skills described in the form of scoring rubric. Surprisingly, this also occurred during the next meetings. In the other words, we may conclude that teacher's understanding of evaluation strategies and her skills to adapt and develop the instruments particularly in the aspects of science process skills was not really appealing.

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

The above facts were supported by the evidence from the interview transcript showed teacher did not possess adequate experience and comprehension about authentic assessment. Other evidence was teacher was not able to provide a satisfactory explanation about the definition and indicators of observing skills even though the term was often expressed. Teacher only mentioned skills of observing consisted of abilities to feel, watch, and palpate. Whereas basically observing skills comprised of capabilities such as: (a) use the five senses to observe objects; (b) identify the similarities and differences between a set of objects; (c) observe patterns in natural ; (d) identify the sequence and events of natural phenomena; (e) interpret the results of observation; (f) develop observation with the help of tools; and (g) repeat the observation (Johnston, 2005; Harlen & Qualter, 2004; Eberbach and Crowley, 2009; Ulu and Kiraz, 2014).

Similar finding was found when teacher was asked to give a complete answer about other aspects of science process skills such as classification skills or making inferences. Meanwhile, indicators of classifying skills characterized by the ability to distinguish the characteristics or properties of various objects, identify the similarities of the objects being observed (Wolfinger in Yulianti and Dewanti 2008; Bredekamp & Copple in McDonell, 2007).

Relevant to the previous findings, teacher failed to identify the attempts to improve the basic science process skills of young children. This was reflected in the scenario of learning proposed in teacher's lesson plan and evaluation instruments. The evidence contradicted Kavalari, Kakana, and Christidou's research result indicated that the process of delivering teaching science concepts to young learners derived from empirical approach (2012).

Furthermore, teacher did not attempt to argue about the importance of observation skill to further develop other science process skills. Though teacher admitted that she was still in the stage of learning about how to introduce science to young learners, this was unacceptable because a professional, educated, and trained teacher must possess such knowledge and skills to help children's progress better in this area. Or in the other word, there was an educational gap in which teacher did not fully trained how to develop science process skills (Tifi et.al., 2006). In this study inappropriate teacher's efforts to develop and monitor children's process skills were also due to the absence of in-service teachers training and the lack of school principal's support to do this.

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

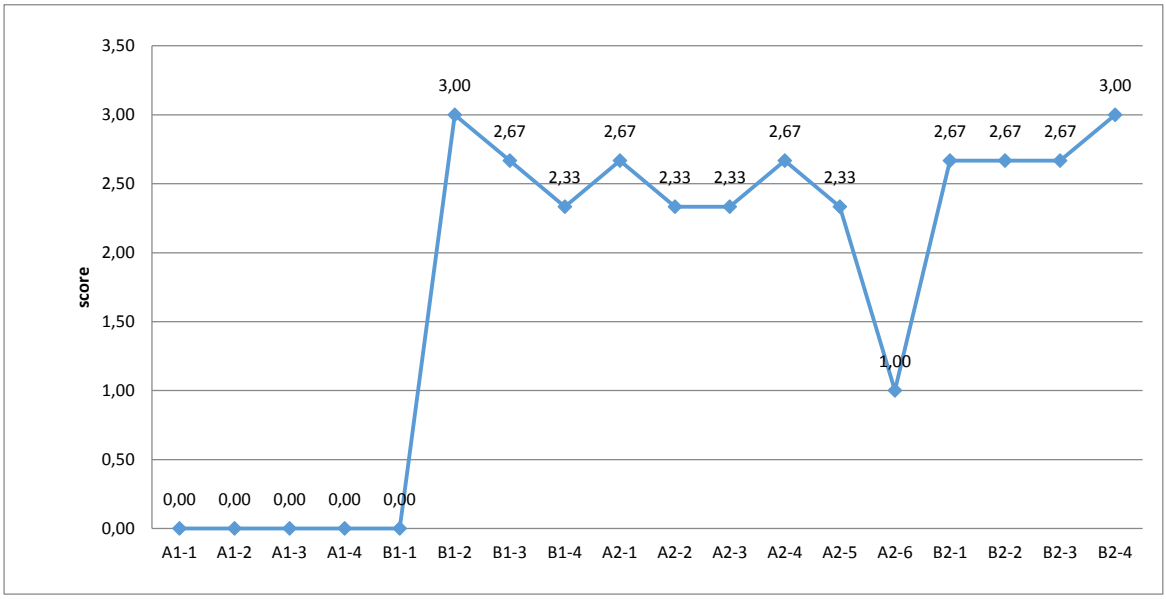



Figure 1. teacher's competency to develop evaluation strategy and instruments

.

This trend appeared constantly from the first until the fifth meetings. The curve then reached its baseline in the last stage of phase A2 (A2-6) though the minimum score of initial baseline (A1) could not be determined. The causal explanation to this finding might come from the teacher's unimproved skills which reflected in a tendency to choose alike strategy (observation) and only scoring rubric in each consecutive meetings during phase three (A2) and along the first three meetings of phase B2. This opposed statement that in observing young children's learning, teacher should employ a diverse evaluation instruments to collect a comprehensive and Next in the third phase (A2) we could identify that guided training still had a quite permanent influence on teacher's competency designing assessment activity. meaningful array of evidences through the use of anecdotal notes, list of questionnaire, children's work (like drawing) assessment rubrics or portfolio documents (Chaille and Britain, 2003; Eberbach and Crowley, 2009, and Carr, 2001). Moreover, significant failure emerged in the last stage was mainly due to mistakes in defining a clear evaluation procedure fitted the standards in the national ECE curriculum of 2013.

In accordance with the above statements, teacher also failed to proposed suitable evaluation procedures and mentioned relevant indicators of motor skills (especially gross motor skills) and social skills. Teacher's focus was mainly to develop children's soft motor skills through cutting, pasting and folding papers activities. Teacher's incapability to plan observation of important features of preferred developed skills might be originated from teacher's failure to determine relevant measurable indicators of gross motor skills as well as failure to define activities fitted the theme and the curriculum's standards. There was a conviction that incapable teacher to construct observation during assessment corresponded to the limitation of comprehensive observed data on children's progress (Chaille and Britain, 2003). This


ISBN: 978-602-74576-0-7

in return would result in the improper reflective expert assessment where teacher as decision maker could mistakenly interpret what children had gained, what they need to learn more and further what to be worked on future curriculum development (Monkeviciene, O and Autokoviciene, A; 2015).

Paradoxically, the positive effect of guided training was confirmed in the last phase of the research (B2). The plot illustrated the increase from the first three meetings to the fourth. Nonetheless, the increase was only a slight (12.36%) indicating insufficient time allocation to further improve teacher's competency through training and feedback (Chaille and Britain, 2003; Kaya and Altuk, 2012 and Kaptan & Timurlenk, 2012).

Lastly, to maximize the result of guided training on teacher's performance, there is a need to provide plenty of learning resources for ECE teachers at school, such as in the library either as print or non-print materials. The lack of relevant resources to facilitate teacher's professional development was identified as a factor hindering the effort as mentioned by teacher.

**k.** Limitation of the study

This study had some limitation which to some extent potentially contributed to the unsatisfying results, such as follows:

- The number of teacher involved,
- the narrow opportunity to extend training allocation time due to school program schedule,
- a limited consistency and continuity of the training program conflicted with some school's program.

Conclusion and recommendation

l. Conclusion

Guided training model of learning could be used as an alternative to improve teachers' competence designing evaluation strategy and instruments. Yet, inadequate training time, limited learning resources for teachers, and lack of school administrator commitment towards teachers' professional development had resulted in slightly increase of teacher competence. Some intrinsic problems were teacher's lack motivation, efficacy and self-confidence in lifelong learning.

**m.** Recommendation

Further research is a necessity to strengthen previous study as a concern to the limitation. Wider population and sampling techniques should be considered carefully to ensure the effectiveness of guided training model in in-service teacher training program. Extended training time along with sufficient resources and facilities may contribute to the expected results. Furthermore, school leader and administrator's support should be put in advance to improve learning process monitoring and evaluation. Whereas the relationship between teacher's self efficacy and background knowledge in promoting and evaluating children's learning outcomes (OECD in Aubrey, C. et.al, 2000; Kahraman, et.al, 2014) should be studied systematically. As teacher's attitude to science, belief, and view of nature of science is strongly related with effective science teaching (McComas, Clough, & Almazroa, Abd- El-Khalick & BouJaoude in Buarapan, 2009; and Kavalari, Kakana, Christidou, 2012), further study in the field is also needed.

**References**

1. Abidin, Y. (2009). Bermain. Bandung: Rizqi Press
2. Abidin, Y. (2009). Guru dan Pembelajaran Bermutu. Bandung: Rizqi Press
3. Aktamiş, H. and Yenice, N. (2010). Determination of The Science Process Skills and Critical Thinking Skill Levels. *Procedia Social and Behavioural Sciences* [Online], Vol 2, p.p 3282-3288.
4. Aubrey, C. et. al. (2000). Early Childhood Educational Research: Issues in Methodology and Ethics. USA: Routledge Falmer Press
5. Badan Penelitian dan Pengembangan Pusat Kurikulum dan Perbukuan. (2014). Kompetensi Inti, Kompetensi Dasar dan Indikator Pencapaian


ISBN: 978-602-74576-0-7

Perkembangan Anak Usia Dini (Usia 0-6 tahun). Jakarta: Depdikbud
6. Bagnato, S. J. (2007). Authentic Assessment for Early Childhood Intervention. New York: The Guilford Press
7. Buarapan, K. (2009). Thai In-Service Teachers' Conceptions of the Nature of Science. *Journal of Science and Mathematics Education in South East Asia. Vol 32, No. 2,* p.p 188-217
8. Carr, M. (2001). Assessment in Early Childhood Settings Learning Stories. Great Britain: Paul Chapman Publishing
9. Chaille, C and Britain, L. (2003). The Young Child as A Scientist: A Constructivist Approach. USA: Pearson Education, Inc.
10. Cheatum.B.A and Hammond.A.A. (2008). Physical Activities for Improving Children's Learning and Behavior. Champaign,IL. Human Kinetics.
11. Cohen. L, Manion. L, dan Morrison. K. (2007). Research Methods In Education Sixth Edition. USA: Routledge
12. Creswell, J. W. (2009). Qualitative, quantitative, and mixed method approaches (third ed.). Thousand Oaks: Sage Publications, Inc.
13. Eberbach, C. & Crowley, K. (2009). Observe The Biologist's World from Everyday to Scientific Observations: How Children Learn to Observe the Biologist's World. *Journal Review of Educational Research, 79,* 39-46. [2 September 2009]
14. Eggen, P dan Kauchak, D. (2012). Strategic and Models for Teachers: Teaching Content and Thinking Skills, 6th Edition. (translated by Satrio Wahono). Jakarta: PT. Indeks
15. Eliason,C and Jenkins,L. (2008). A Practical Guide to Early Childhood Curriculum Eight Edition. Columbus. Pearson.
16. Fraenkel, J.R dan Wallen, N.E. (2007). How to Design and Evaluate Research in Education. 6th Edition. Singapore: Mc Graw Hill Education Asia
17. Hammond, L.D dan Brandsford, J. (2005). Preparing Teachers for A Changing World: What Teachers Should Know and Be Able to Do. USA: John Wiley and Sons, Inc.
18. Hammerness et.al. (2005). How Teachers Learn and Develop. *Preparing Teachers for A Changing World What Teachers Should Learn and Be Able to Do (editor: Hammond, L.D dan Brandsford, J.).* p.p. 358-389 USA: John Wiley & Sons, Inc.
19. Harlen et.al. (2003). Making Progress in Primary Science. A study Book for Teachers and Student Teachers. London: Routledge Falmer.
20. Harlen, W. & Qualter, A. (2004). The Teaching of Science in Primary School (Fourth Edition). Great Britain: David Fulton Publishers.
21. Harmer.J. (2012). Teacher Knowledge. Essex. Pearson Education Limited.
22. Harun, et.al. (2014). Metode Permainan untuk Meningkatkan Penguasaan Kosakata Bahasa Inggris dan Keterampilan Proses Sains Anak Usia Dini. Laporan Penelitian Hibah Kelompok Bidang Keahlian. Bandung: Tidak diterbitkan
23. Helm dan Katz. (2001). Young Investigators 2nd Ed. USA: Teachers College
24. Johnston, J. (2005). Early Explorations in Science (2nd Edition). United Kingdom: Open University Press.
25. Joyce, B. & Weil, M. (1996). Models of Teaching. USA: Allyn and Bacon
26. Juwita, K.D. (1997). Translation: Menciptakan Kelas yang Berpusat pada Anak. Children Resources International, Inc.
27. Kahraman, et.al (2014). Investigation of Pre-Service Science Teachers' Self Efficacy Beliefs of Science Teaching. *Procedia Social and Behavioural Sciences, 136,* p.p 501-505
28. Kaya, V.H. and Altuk, Y.G. (2012). The Views Concerning In-service Teacher Education Courses in ScienceTeachers'Professional Development. P*rocedia - Social and Behavioral Sciences,* 47, p.p 600 – 604
29. Kaptan, K. & Timurlenk, O. (2012). Challenges for Science Education. *Procedia Social and Behavioural Sciences, 51,* p.p 763-771
30. Kavalari, Kakana , Christidou (2012). Contemporary Teaching Methods and Science Content Knowledge in Preschool Education: Searching for Connections. *Procedia Social and Behavioural Sciences, 46,* p.p 3649-3654
31. McDonell, C. (2007). Project Based Inquiry Units for Young Children. First Step to Research for Grades Pre-K-2. Ohio: Linworth Publishing, Inc
32. McMillan, J. H., & Schumacher, S. (2010). Research in education: Evidence-based inquiry


ISBN: 978-602-74576-0-7

(seventh ed.). Upper Saddle River: Pearson Education, Inc.
33. Monkeviciene, O and Autukeviciene, B (2015). The Competences of Educative Mentor, Fostering Change in The Early Childhood Education. *Procedia-Social and Behavioural Sciences.* 197, p.p 885-891
34. Neuman, W. L. (2006). Social research method: Qualitative and quantitative approaches (Sixth ed.). Boston: Pearson.
35. Oliveras & Oliveras. (2014). Pre-service Kindergarten Teachers' Conceptions of Play, Science, mathematics and Education. *Procedia-Social and Behavioural Sciences, 152,* p.p 856-861
36. Samsudin (2008). Pembelajaran Motorik Di Taman Kanak-Kanak. Jakarta: Litera.
37. Santrock, J.W. (2008). Life Span Development. 7th Edition. USA: Mc Graw Hill Companies, Inc.
38. Smith, P.K. (2010). Children and Play. Malaysia: Blackwell Publishing
39. Tifi, A. et.al., (2006). Scientist at Play: Teaching Science Process Skills. *Science in Schools. Issue 1.* p.p 37-40
40. Sumaji. (1998). *"Dimensi Pendidikan IPA dan Pengembangannya sebagai Disiplin Ilmu",* in Pendidikan Sains yang Humanistis. Yogyakarta: Penerbit Kanisius.
41. Sukmadinata, N. S. (2008). Pengembangan Kurikulum: Teori dan Praktek. Bandung: PT. Penerbit Rosdakarya
42. Suyanto, S. (2005). Dasar-dasar Pendidikan Anak Usia Dini. Yogyakarta: Hikayat Publishing
43. Trnova, E. and Trna, J. (2015). Formation of Science Concepts in Pre-school Science Education. *Procedia-Social and Behavioural Sciences,* 197, 2339 – 2346
44. Ulu, E. and Kiraz A. (2014). Science Education and Cognitive Development in Updated 2012 Pre-school Curriculum. *Procedia - Social and Behavioral Sciences,* 136, p.p 438 – 451
45. Vitti. D & Torres. A (2006). Practicing Science Process Skills at Home. A Handbook for Parents. [28 October 2010]
46. Yulianti, D. & Dewanti, S.S. (2008). Model Bermain Sambil Belajar Sains untuk Mengembangkan Keterampilan Proses Siswa Taman Kanak-Kanak.[13 October 2010].


ISBN: 978-602-74576-0-7

# REFLECTION OF TEACHING PROFESSION EDUCATION OF PRODUCTIVE VOCATIONAL HIGH SCHOOL TEACHERS

**SUNARYO SOENARTO**
**Lecture of Elektro Enginering, FT State University of Yogyakarta**

**ABSTRACT**

Teaching Profession Education (PPG) is an educational program organized for graduates of the S-1 Educational and S-1 / D-IV Non-educational who have the talent and interest in becoming a teacher, so that graduates can become professional teachers in accordance with national education standards. With a variety of names, including Collaborative Pilot of Teaching Profession Education, Teaching Profession Education Integrated with additional authority, or Teaching Profession Education for Productive Vocational High School became a hope for Vocational High School to get a productive professional teachers to teach the theory and practice of skill packages. Since the Directorate General of Higher Education launched a variety of PPG from 2011 to 2013, the distribution mechanism of the PPG graduates have not designed to be systematical

.

## A. Introduction

Teachers in Vocational High School is a professional position that has a strategic role in the preparation of professional personals that needs to be prepared through education programs that are designed based on competency standards. Therefore, the necessary resources are excellent, and the professional management, to equip teacher candidates with a wide range of competencies, from the mastery of skills, scholarly foundation of education and pedagogical, and social personalities in applying professional ethics in the field.

Based on a legal basis, such as: Act No. 20 of 2003 on National Education System, Act No. 14 Year 2005 on Teachers and Lecturers, Government Regulation No. 19 Year 2005 on National Education Standards, and Government Regulation No. 74 Year 2008 about Master, unequivocally teachers are required to have five aspects, namely: 1) academic qualifications, 2) competences, 3) teaching certificates, 4) physically and mentally healthy, and 5) were able to achieve national education goals. Government Regulation No. 74 Year 2008, Article 4 confirms that the teaching certificate for teachers was acquired through Teaching Profession Education program organized by institutions that have programs for the procurement of accredited educational personals both held by governments and society. The PPG is conducted after the program level of the S-1 / D-4. The PPG integrated in service program which has been implemented since 2010 became the basis for the development of Teaching Profession Education for Productive Vocational High School that is implemented in cooperation with Higher Education Partners.

Faculty of Engineering (FT) UNY is one of Educational Institutions (LPTK) that has over 32 years of experience in preparing teachers in integrated education between academic educations with professional education, known as concurrent systems (integrated). In 2013, the Faculty of Engineering, State University of Yogyakarta along with others Educational Institutions in Indonesia were appointed by the Ministry of Education and Culture to organize Collaborative Teaching Profession Education for Productive Vocational High School at science Engineering especially Electronic Engineering, Automotive Engineering, Civil Engineering and Planning, Food Engineering, Clothing Engineering, Information Technology and Visual Communication Design.

## B. Discussions

### 1. Teacher Certification Scheme

Teacher certification is the process of granting certificates of educators for teachers who have met the requirements. Teacher certification is aimed at (1) determine the quality of teachers in carrying out duties as a professional educator, (2) enhance the learning process and results, (3) improve the welfare of teachers, (4) increase the dignity of teachers; in order to achieve the national education quality.

At the beginning of teacher certification in 2007, certification schemes for teacher in-service have been carried out with three models. All three models of the certification program are: (a) through portfolio assessment, (b) through Teaching Profession Education and Training (PLPG), and (c) through two semesters of education. Referring to the Regulation of the Minister of National Education of the Republic of Indonesia Number 11 Year 2011 on Certification for Teachers In Job chapter 2, the implementation of in-service teacher certification for these models coupled with a direct granting educational certificates model. Several studies conducted by experts in


ISBN: 978-602-74576-0-7

education, for teachers who have been certified, show results, which was not as expectation. Djohar MS research results, to 100 teachers, 25 percent of them did not show an attitude of professional teachers (Kedaulatan Rakyat, 2009). Research conducted by Baedhowi (2009), concluded that the implementation of certification through portfolio assessment and PLPG in 2008 as presented that in general the competence of teachers who pass certification through portfolio assessment was not much improved, and there was even a tendency to decrease. Comprehensively, the research conducted by Djemari Mardapi et al. (2008) on the Impact of Teacher Certification at the junior high school teachers in 7 provinces (Gorontalo, West Java, Central Java, East Java, West Sulawesi, South Sulawesi and West Sumatra) concluded: 1) professional competence with an average score of 51.28 , 2) pedagogic competence with an average score of 68.52, 3) the attitude of teachers to teach with an average score of 63.13, and 4) job satisfaction with an average score of 73.82.

Referring to several studies, granting certification to teachers in-service, through portfolio assessment scheme and the scheme of Teaching Profession Education and Training (PLPG) are indicated that it has not met the expectations of certification objectives (1) and (2) above. It is therefore not excessive if the government expect much to Education Teacher Certification schemes (PPG) in order to produce professional teachers in the future. The presence of Vocational High School teachers who meet four professional competence of educators is a phenomenon that is not easy to be realized.

**2. Professional Education for Productive Vocational High School Teacher**

The decree of the Director General of Education, Ministry of Education and Culture No. 7013 / D / Kp / 2013 on expertise spectrum of Secondary Education Vocational, it explained there were nine areas of expertise, there were 46 program expertise, and 128 packages expertise. Meanwhile, today there are only 23 courses in strata 1 (equivalent to a expertise program), which is held in 12 state educational institutions (LPTK). Therefore, the implementation of PPG, for 23 programs other skill, LPTK must collaborate with universities (University or Polytechnic), which is accredited and has a course Strata 1, which is relevant and geographically close to the main institutions, from LPTK conducting a PPG , This model is called PPG for Productive Vocational High School.

a. **Experties Program of PPG for Productive Vocational High School**

Referring to article 3 of Law No. 20 of 2003, the general purpose of the program PPG is to produce future teachers, who have the ability to achieve national education goals, namely to develop students' potentials to be, the man who is faithful and obedient to God Almighty, noble, healthy, knowledgeable, skillful, creative, independent, and become citizens of a democratic and responsible. While the specific objectives of the program PPG is as stated in Article 2 Permendiknas No. 8 of 2009 are: 1) produce future teachers, who have the competency to plan, implement, and assess learning outcomes, follow up the assessments and coaching, and 2) train students and conduct research, and develop professionalism in a sustainable manner.

Based on letter decree of the Director of Teachers and Education Personnel, Directorate General of Higher Education, Ministry of Education and Culture No. 1373.2 / E4.1 / 2013 on Stipulation of College Scholarship Program for the Implementation of Professional Education for Teachers of Productive Vocational High School, Faculty of Engineering, State University of Yogyakarta, got a quota for 57 participants. PPG participants recruitment selection of Productive Vocational High School consists of: 1) the selection of administration, conducted nationally by the Directorate General of Higher Education, and 2) academic selection is done by LPTK.

The subjects of the program of PPG for Productive Vocational High School are for college graduates both from educational and Non-educational programs in LPTK. Based on the quota for participants PPG for Productive Vocational High School in the FT UNY, it has been organized 7 courses for 57 participants. In one study program, FT UNY is collaborating with the Polytechnic of Art Yogyakarta. Meanwhile, the study program organized are: 1) Electronic Engineering Education, 2) Automotive Engineering Education, 3) Civil Engineering and Building Education, 4) Food Engineering Education, 5) Clothing Engineering Education, 6) Informational Engineering Education, and 7) Visual Communication Design Education..

b. Curriculum for PPG for Productive Vocational High School

Diaz-Maggioli (2004) explained that the necessary knowledge of professional teachers include: knowledge of the field of study or area of expertise (content knowledge), pedagogical knowledge and contextual knowledge in line

with technological developments. Certainly knowledge of the field of study or area of expertise refers to the content or substance of the subject (subject matter) on a particular curriculum. The same opinion was delivered GESS-Newsome (1999) that there are four of knowledge as the basis in teaching, namely: pedagogical knowledge, knowledge of the subject matter, knowledge that is taught (pedagogical content knowledge), and contextual knowledge.

Indonesian Presidential Regulation No. 8 of 2012 on Indonesian National Qualifications Framework (KKNI), explaining the teaching profession education equivalent to level seven. *Kemenristekdikti* Regulation No. 44 2015 Article 1 (6) explained that the curriculum is a set of plans and arrangements regarding learning outcomes of graduates, study materials, processes, and assessments used to guide the implementation of the program of study.

Referring to Presidential Decree No. 8 in 2012 and *Kemenristekdikti* Regulation No. 44 in 2015, PPG Program curriculum for Productive Vocational High School developed by the demands of work profession as professional teachers, with the authority to teach subjects productively in Vocational High School. Curriculum development following the steps as follows:

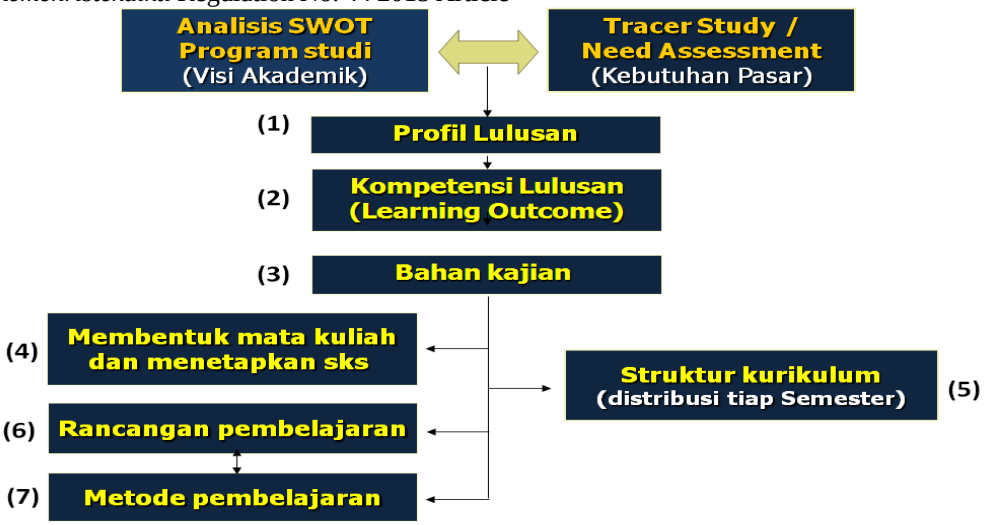



Figure 1: Curriculum Development Phase of PPG for Produktive Vocational High School

Based on self evaluation and tracer study analysis on the stakeholder's needs that is professional productive vocational high school teacher candidates, then the profile of PPG graduates is determined. The graduates must have : 1) Core competencies, 2) Supporting Competencies, and 3) other competencies.

Core competencies, which is associated with the job as a teacher at the Productive Vocational High School should be able to master the material to be taught well, to be taught in theory and in practice. A teacher productive Vocational High School, must also have competency in the field of learning namely able to create a syllabus and lesson plans, organize and prepare instructional materials, develop learning media, evaluate the results, and the student learning process and be able to teach in the classroom, laboratory or workshop. Supporting Competencies for the productive Vocational High School teachers are the ability to use ICT in learning, communication skills both oral and written and other capabilities. While the other competency which characterize professional teachers graduates of UNY is the character of teachers who have faith, independence and intellectual intelligence.

Subsequently identified, and are prepared in accordance with the curriculum structure analysis of learning outcomes which have been compiled above. Based on the identification of potential participants, the curriculum is developed as follows.


ISBN: 978-602-74576-0-7

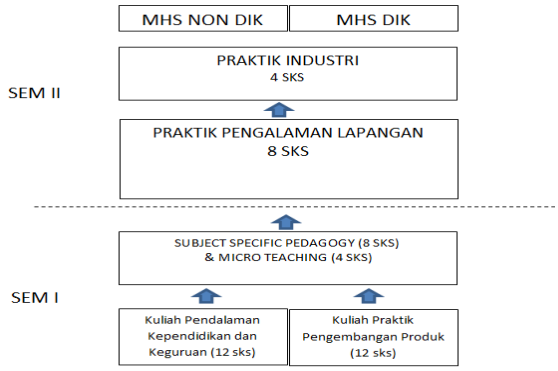



Figure 2: Model of Collaborative Integrated Professional Teachers Program

### 3. Course System of PPG for Productive Vocational High School in FT UNY

PPG Vocational High School Class Productive, beginning with orientation activities intended to provide supplies to new students in recognizing the academic culture in the Faculty of Engineering, State University of Yogyakarta. In particular orientation activities aims to: 1) provide insight for students to know the program of academic and non-academic program of PPG for Productive Vocational High School , 2) provide motivation for students to graduate on time, and 3) know and understand the educational process at the Faculty of Engineering , State University of Yogyakarta. The orientation materials include: 1) the Government's policy related to the improvement of education, 2) academic culture at the State University of Yogyakarta, 3) the rights and obligations of participants PPG, 4) student activities, and 5) Information and Communication Technology.

In consideration of accountability, and the feasibility of the implementation of the course in conjunction with regular the course at the Faculty of Engineering, the course was organized with Team Teaching (2 lecturers). Courses were conducted with andragogy approach or learning for adults. Class subjects deepening educational materials, and teacher training conducted at the Center for Education Technology, and Vocational in FT UNY with a block system. The system block of time, meaning the course for deepening educational materials and teacher training was done within 2 months with the accumulation of 16 meetings. Class system with a block of time, might be a contributing factor to the failure of the minimum competencies achievement. Moreover, the deepening of educational courses and teacher training was a relatively new science for participants. Course was implementing remedial programs as a learning strategy for the achievement of learning material for each competency.

### 4. Productive Vocational High School's PPG Achievement

PPG program curriculum is designed Productive Vocational High School in two semesters, where each semester consists of two blocks of time. Classes for each time block consisting of 16 meetings, class schedules are designed so that each course served two times / week. Classes for PPG for Productive Vocational High School with curriculum that is designed with system of four blocks of time, felt very solid. But the lecturers approach andragogy (adult learning), learning model using the Student Learning Center, as well as program managers facilitated with a representative classrooms, students stay motivated until the end of the course. This was able to increase student motivation to learn to master the material presented by the lecturer. Additionally manager also provides time for refreshing, and discussion rooms to resolve the problems experienced by each participant of the PPG. At the end of the block of time, at each course final exam subjects conducted to determine grade point index.

At the end of the program PPG for Productive Vocational High School, each participant take Local Written Exam (UTL) and the National Written Exam (UTN). Local Written Exam, examination organized by each LPTK to measure the achievement of the minimum competencies of subjects. National Written Exam (UTN) conducted by the Higher Education online. Minimum score for UTN is 50, if the participant PPG Vocational High School production has not reached the minimum score, given the opportunity to re-take the exam for UTN.

Academic Performance index student, per study program, presented in the following figure:

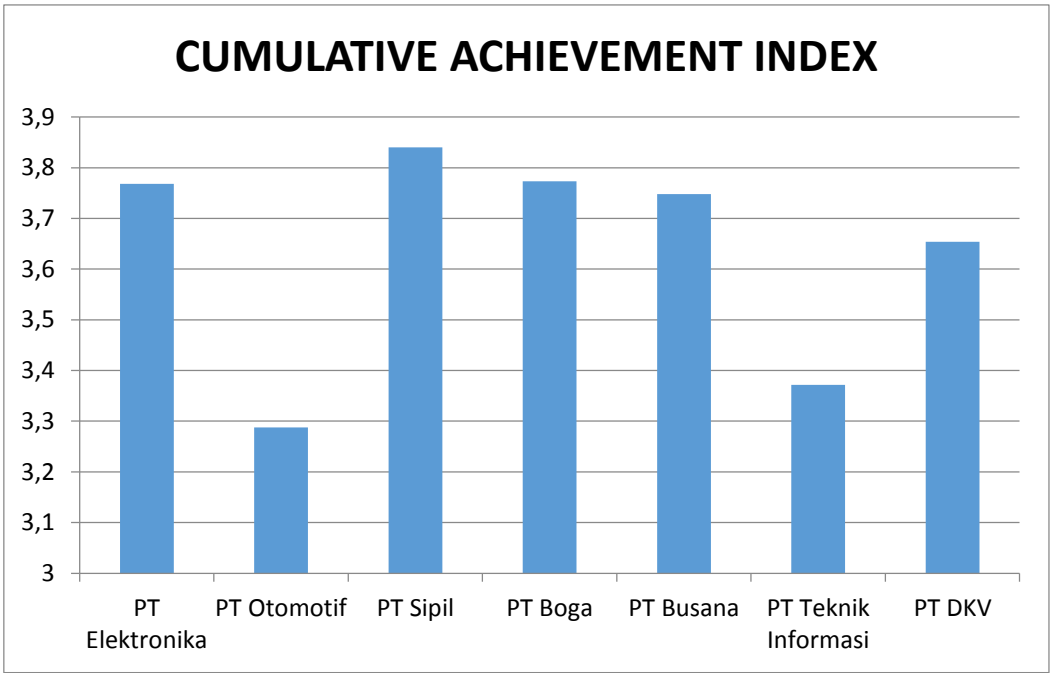



Figure 3 Comulative Achievement Index Per Study Program

National Written Exam Results (UTN) has been done twice. Primary UTN followed by 56 people, students who graduate as many as 40 people or 71.42%. UTN remedial attended by 16 people, students who graduate as many as 12 people. At the end of the program Productive PPG Vocational High School, students who graduate as many as 52 people or 92.8%. Data are presented in the following table.

| No | Study Program | MAIN UTN | | | | REMEDIAL UTN | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Participants | Fail | Pass | | Participants | Fail | Pass | |
| 1 | Elektronics Engineering | 9 | 9 | 0 | (0%) | 9 | 1 | 8 | (88,9%) |
| 2 | OtomotiveEngineering | 22 | 3 | 19 | (86,4%) | 3 | 2 | 1 | (95,4%) |
| 3 | Building Engineering | 2 | 0 | 2 | (100%) | 0 | 0 | 0 | (100%) |
| 4 | Food Engineering | 6 | 0 | 6 | (100%) | 0 | 0 | 0 | (100%) |
| 5 | Fashion Engineering | 6 | 2 | 4 | (66,7%) | 2 | 0 | 2 | (100%) |
| 6 | Informatics Engineering | 5 | 3 | 2 | (40%) | 3 | 1 | 2 | (80%) |
| 7 | Visual Communication Engineering | 6 | 0 | 6 | (100%) | 0 | 0 | 0 | (100%) |
| Total | | 56 | 16 | 40 | (71,42%) | 16 | 4 | 12 | (92,8%) |


ISBN: 978-602-74576-0-7

**Conclusions**

Based on Grade Point Average (GPA), the average score for every study program was more than 3.00. The GPA means of 47 students (90,38%) out of 52 students who were declared to pass were 3,00. In overall, 52 students (92,8%) were declared to pass the PPG for Productive Vocational High School. This means that their learning outcome were very good. There was even one students from Food Education Study Program who got A grades in every subjects and get 4,00 of GPA..

From the aspect of program implementation, PPG for Productive Vocational High School has been considered well done by some stakeholders. Even though, Directorate of Higher Education has not able to build the network between ministry offices to facilitate the PPG graduates. While the Ministry of Education and Culture has opened an opportunity for the PPG graduates by holding recruitment for PPG graduates to be Civil Servant Teacher..

**BIBLIOGRAPHY**

Baedhowi. (2009).Tantangan pendidikan masa depan dan kiat menjadi guru profesional. Makalah disampaikan pada Seminar Nasional dan Launching Klub Guru Indonesia Wilayah Yogyakarta, di Yogyakarta, 14 Juni 2009

Day, C. (2002). "Revising the Puposes of Continuing Professional Development". Dalam Trorey, G., & Cullingford, C. (Eds.). *Professional Development and Institutional Needs*. Aldershot : Ashgate Publishing Limited.

Diaz-Maggioli, G. (2004). *Teacher-Centered Professional Development*. Virginia: Association for Supervision and Curriculum Evelopment.

Djohar MS. (24 Agustus 2009). "Banyak yang belum tunjukkan Perilaku Profesional: Kualitas Guru Belum Sesuai Harapan". *Kedaulatan Rakyat*, hal. 15, kolom 1-4.

E. Mulyasa. (2008). *Standar Kompetensi dan Sertifikasi Guru*, Cetakan ketiga. Bandung: PT. Remaja Rosdakarya Offset.

Moh. Uzer Usman. (2008). *Menjadi Guru Profesional*, Cetakan ke-20. Bandung: PT. Remaja Rosdakarya Offset.

Undang-undang Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional.

Undang-Undang Nomor 14 Tahun 2005 tentang Guru dan Dosen.

Peraturan Pemerintah Nomor 19 Tahun 2005 tentang Standar Nasional Pendidikan.

Peraturan Pemerintah Nomor 74 Tahun 2008 tentang Guru.

# CORRELATIONAL STUDY AMONG PRINCIPAL'S LEADERSHIP AND COMMUNICATION CAPABILITY WITH TEACHERS' PERFORMANCE AT SMAN I GORONTALO CITY

**Abdul Rahmat, Syaeful Kadir dan Mira Mirnawati**
*Dosen Universitas Negeri Gorontalo*

Abstract

This research aims at ascertaining: (1) correlation between principal's leadership and teachers' performance, (2) correlation between principal's communication capability and teachers' performance, and (3) principal's leadership and communication capability with teachers' performance. Population of this research is all teachers at SMA Negeri 1 Kota Gorontalo consisting of 50 teachers. Sample of this research is all of members of population consisting 50 teachers (using *total sampling technique*). Data collecting is conducted by distributing questionaire to all respondents. Data analysis is done quantitaively by using statistical procedure with regression formula (*Product Moment*). *Correlations Coefficients* obtained from the result of testing hypothesis shows that: (1) hypothesis 1 is accepted, meaning that there are positive correlation between principal's leadership and teachers' performance, with correlations coefficients $r_{xy}$ = 0,64, categorized into significant correlation; (2) hypothesis 2 is accepted, meaning that there are positive correlation between principal's communication capability and teachers' performance, with correlations coefficients $r_{xy}$ = 0,78, categorized into significant correlation; and (3) hypothesis 3 is accepted, meaning that there are simultanously positive correlations among principal's leadership and principal's communication capability with teachers' performance, with correlations coefficients $r_{y.12}$= 0,86, categorized into very significant correlation. Based on the result of this research, it can be concluded that there are positive correlations among principal's leadership and principal's communication capability with teachers' performance at SMA Negeri 1 Kota Gorontalo.

Key words: leadership, communication capability, teachers' performance

## PRELIMINARY

School leadership can be defined as the ability and willingness of a person to influence, guide, direct, and moving the school staff to work effectively in order to achieve educational goals and instruction set. In simple terms the principal's leadership can be defined as the support services given the principal of the determination and achievement of educational goals of the school. Quality-oriented leadership is a prerequisite to realize the objectives of the school. Capabilities include the ability to lead principals to work with or through the administrative staff and academic personnel (Danim, 2012: 150). Therefore, a school principal should correctly understand the vision of the institution he leads, is able to cultivate the quality of labor and can empower all the potential that exists to support the attainment of quality school program.

In addition to the ability to manage as a leader as described above, a school principal should have good communication skills. Communication between the members of the school community are well established with the principal as a leader will be able to foster a good climate and support for success in all activities in school education. However, in reality corresponding author for this observation, in communication during this activity within an organization has not been pursued to the maximum in terms of both function and form of communication. The communication appears to only be regarded as a daily routine in organizing activities both within the organization such as an office or at school. During the period of leadership of some of the principal SMAN 1 City of Gorontalo strive continuously to improve the quality of education. The quality of education include quality educator resources, the quality of teaching equipment, quality programs both academic and non-academic, even the quality of educational services. Achievement of this


ISBN: 978-602-74576-0-7

quality will not succeed if the principal as leader of the institution is not able to implement a system that can support the smooth achievement of the desired objectives, lack of leadership and communication skills. Thus, it can be said that the quality of school leadership which is supported by the ability to communicate well with all members of the school considered to contribute to improving the quality of education in schools, including the quality of educational services by educators for participants didik.Namun Thus, to know clearly the relationship of leadership principals, principals the ability to communicate with the performance of educators, the authors intend to conduct research entitled "Correlational Study Between Leadership and communication Skills Principal with educators performance in SMAN 1 Gorontalo city".

## LITERATURE REVIEW

### Performance

Performance of workers is essential for any organization. Therefore, to achieve the strategic targets requires the ability to manage the performance of their employees appropriately. In these arrangements, should always be consistent with the needs of the organization, in order to realize the long-term success.*"An organization's long-term success in meeting its strategic objectives rests with its ability to manage employee performance and ensure that performance measures are consistent with the organization's needs".* (Mello, 2002:298).

According to The Scribner - Bantam English Dictionary, published by the United States and Canada, 1979, "performance" is derived from the root "to perform" that has several "entries" below:

*a. To do or carry out; execute;*
*b. To discharge or fulfill, as a vow;*
*c. To portray, as a character in a play;*
*d. To render by the voice or a musical instrument;*
*e. To execute or complete an undertaking;*
*f. To act a part in a play;*
*g. To perform music;*
h. *To do what is expected of a person or machine.*
(Suyadi, 2009:12)

Performance is the result of work that can be achieved by a person or group of people in an organization, in accordance with the authority and responsibilities of each, in an effort to achieve the goals of the organization in question legally, does not violate the law and in accordance with moral and ethical. Some other formula regarding the definition of "performance" as a translation for "performance" is as follows:

*a. "Performance is the accomplishment of an employee or manager's assigned duties and the outcomes produced on a specified job function or activity during a specified time period".* (Harvey & Bowin, 1996:140).
*b. "Performance is the end result of activity. Which measures to select to assess performance depends on the organizational unit to be appraised and the objectives to be achieved".* (Wheelen & Hunger, 2004:243).
*c. "Performance is the record of outcomes produced on specified job functions or activities during a specified time period".* (Bernardin, 2003:143).
*d. "Performance is the end result of an activity".* (Robbins & Coulter, 2003:554).
*e. "Performance is the organization's ability to attain its goals by using resources in an efficient and effective manner".* (Daft, 2003:10).

### Leadership

Leadership is a skill or quality of a leader in the direct what leads to goal. orthouse (Waluyo, 2006: 13) states that leadership is a process whereby an individual influences a group to achieve a common goal. This understanding was sharpened by Dubrin (Waluyo, 2006: 15) that leadership is the ability to instill confidence and the support of members of the organization to achieve organizational goals. Leadership also includes control of an organization to lead an organization that we can achieve the goals that have been set.
This is called managerial leadership. In relation to managerial leadership, Nasution (2005: 200) argues that leadership as one part of manajemen.Manajemen in question is the management organization which serves as a decisive leader and controlling the direction of the organization through the stages progarm to achieve the goal.

Effective leadership in an organization's management requires the ability situasional.Hal dimension is due to the diversity of resources that

should be directed and controlled so that the goal can be achieved effectively and efisien.Dalam situational dimension, an authoritarian leader who is going to change the style leadership with the other forces in order to sustain its leadership. Conversely, a democratic leader would use an authoritarian leadership style when the situation demands and urged him to have to do that, even to impose sanctions on organizational discipline. This is in line with what is proposed by Handoko (1999: 295) that the situational approach considers that the conditions that determine the effectiveness kepempimpinan varies with the situation that the duties performed, skills and expectations of subordinates, environmental organizations, the past experience of leaders and subordinates etc.,

From the foregoing, it can be concluded that the leadership skills of a leader of the institution or organization covering managerial capabilities which a leader must be able manages, run and evaluate the course of the process of the institution or organization in achieving its intended purpose. The ability to lead the situational approach can provide a more solid organizational impact coupled with the ability to improve the performance of their subordinates.

**Ability to Communicate**

Communication is "delivering messages", or too broad. Communication can occur if there is a similarity between the messenger and the person receiving the message. This is similar to what is proposed by Suwardi (1968: 13) that if we communicate then it means that we are in the state trying to cause in common. Another understanding of communication also stated by the Moors (1993: 78), namely the delivery of understanding among individuals. According to him, all based on the human capacity to convey the intent, desire, feeling, knowledge and experience from one person to another person. Communication is the center of interest and behavior in situations where a source of the message to a recipient by attempting to influence the behavior of the recipient.

John R. Wenburg, et.al (in Mulyasa, 2002: 60) states that there are at least three communication as an understanding of the interaction, communication and communication as an act and as a transaction. Communication as action in one direction (linear), which is likened to the process by which messages flow from the source through some components of heading to the communicant (Sendjaja, 1994: 178).

Furthermore, Potts & Sachez (2002: 21) argues that:

> "*Communication is defined as a process by which we assign and convey meaning in an attempt to create shared understanding*.

From some of the above understanding can be concluded that communication skills are the skills or the ability of delivering messages, ideas, or thoughts to others with the intention that other people understand what is meant by good, directly or indirectly verbally. The ability to communicate is very important in the life of every orang.Dengan good communication skills, interpersonal relationships among fellow members of the organization into a well-maintained so as to foster the climate or the environment comfortable and conducive to the smooth operation of the organization.

**RESEARCH METHODS**

The time used for this study is for 4 (four) months commencing from September to December 2015. The method used in this research is survey method with correlation technique. In this peneiltian, variables can be stated as follows: educator performance as the dependent variable (Y), Variable school leadership as a free variable (X-1), Variable ability to communicate with the principal as the independent variable (X-2). The study population was all educators in public SMA 1 Gorontalo number of 50 people, with details: educator PNS some 47 people and educators are not fixed (PTT) number 3. The total population is 50 people. Sampling of the population is carried out with the total sample technique also called a sample census / sample saturated, namely by taking the total number of population as the study sample. Of a total population of 50 people, all taken as a sample. Because of subjects that are less than 100, then the research is a population for all subjects that are studied (Arikunto, 2002: 112).

Data collection techniques in this study conducted by questionnaire or questionnaires. The questionnaire was structured questionnaire was filled out by the respondents reading the questions and then record the answers given (Basuki, 2006: 110). The questions in the questionnaire are questions concerning the facts and opinions of respondents. Types of questionnaires used in this study is the


ISBN: 978-602-74576-0-7

enclosed questionnaire, in which respondents were asked to answer the question by selecting one of a number of alternatives. Advantages of the closed form is easily solved, easily analyzed, and able to provide the range of answers.

## RESEARCH RESULT

### The relationship of school leadership with the performance of educators

The results of the regression equation: $\hat{Y} = 17{,}9109 + 0{,}8462X_1$, it is clear that any increase in the score results of school leadership followed by a higher score educator performance, in other words, or the higher leadership of the principal, the higher the performance of educators in school. Judging from the coefficient of determination ($r^2$) = 0,4165, or 41.65% of educators performance variation can be explained by the principal's leadership is still 58.35% is explained by other factors. Thus, it strengthens the argument that the educator's performance is determined by many factors, one of which is the school leadership.

The interpretation of testing hypotheses about the relationship of school leadership with the performance of teachers in the school are supported and strengthened by penadapat proposed by Stoner (in Handoko, 1999: 294) states that that leadership is a process of directing the provision of an influence on the activities of the group members that in addition to dealing with their duties. This is called managerial leadership. Based on this opinion, it is understood that the role of a school principal as leader in the school has a relationship with a subordinate's performance in school educators.

### Relationships principals the ability to communicate with the performance of educators

Based on the calculations and data analysis, as described previously, the results obtained F count> Ftable is 76.275> 7.19 at α = 0.01. Thus, H0 is rejected, which means that there is a relationship between the ability to communicate with the performance of the school head teachers and education personnel. From the results of calculations based on regression equations 6.0000 + 0,9310X2, then this means that the relationship between the ability to communicate with the school principal educator's performance is very significant.

With the results of the regression equation 6.0000 + 0,9310X2 it can be seen that any increase in the score results ability to communicate principals followed by a higher score of the performance of teachers and education personnel. The higher the ability to communicate with the principal, the higher the performance of educators in schools. Furthermore, in terms of the value of the coefficient of determination (r2) = 0.6084, or 60.84% of educators performance variation can be explained by the ability to communicate the principal is still 39.16% is explained by other factors. Thus, it strengthens the argument that the performance of educators also participated in the ability berkomunikais principal.

Interpretation of the results of testing hypotheses about their relationships principals the ability to communicate with the performance of educators in school is supported and strengthened by the opinion expressed by Stewart L. Tubss and Sylvia Moss in the book Human Communication (2006: 48). Steward and Moss stated that it is very important to study the flow of communication that takes place within an organization, the flow of vertical communication consisting of the flow of communication from the top down and the flow of communication from the bottom up as well as the flow of communication that takes place between sections or employees in tiers or levels the same one. Vertical and horizontal communication flows is found also in the practices of school leadership. A leadership in an organization should be encouraged and supported by the ability to communicate leader.

### The relationship of school leadership and communication skills with the performance of the school head teachers

$\hat{Y} = -20{,}2121 + 0{,}5123X_1 + 0{,}7415X_2$

From the regression equation obtained it can be seen that any increase in scores of school leadership and communication skills of principals followed by a rise in performance scores of teachers and educators. The higher the leadership and communication skills of school principals the higher the performance of educators in school.

With reference to the size of the correlation coefficient ranges from -1 to 1, and with the understanding that the positive correlation coefficient has a value; (A) 0.00 to 0.20 are not correlated, (b) 0.21 to 0.40 weakly correlated, (c) from 0.41 to 0.60 being correlated, (d) from 0.61 to 0.80 correlated strong, and (e) 0.81 to 1.00 correlated, then the principal's leadership is strongly correlated (ry1 = 0.6454) with the performance of educators, school principals the ability to communicate strongly

correlated (ry2 = 0.78) with the performance of educators and school leadership , the ability to communicate principals together to have a high correlation (ry12 = 0.86) with the performance of educators.

Based on these results, it can be interpreted that the factor of school leadership (variable X1), and the capability of communicating principals (X2), both together can determine the performance of educators in school ((ry12 = 0.86). These results were obtained of large multiple correlation coefficient of determination (R2) of 0.7396, or 73.96% of the variation is explained by factors educator performance leadership and communication skills, and still approximately 26.04% determined by other variables.

In conjunction with a position as principal, a school principal should have good communication skills. Excellent communication skills can be demonstrated in attitudes among other things: to be able to communicate both verbally, written, and / or gesture politely, interact effectively with students, teachers and parents or guardians of students, using language that is easy and simple in communication activities daily, communicate to subordinates topical issues that are growing, and the communication is able to provide motivation and support for the performance of subordinates.

Based on the interpretation of the results of these studies, the leadership and communication skills of principals are two factors to consider in improving the performance of educators in school. Of the price variable coefficient as already mentioned above, it can be seen that the relationship between variables appear in three forms of relationships that are strong links (ry1 = 0.6454), a strong relationship (ry2 = 0.6084) and a very strong relationship / high (ry12 = 0.86) ,

## CONCLUSION

Based on the results of studies on the association's leadership and ability to communicate with the performance of the school head teachers, it can be concluded the following:

1. There is a positive relationship with the school leadership performance of educators. It can be seen from the correlation coefficient (). On testing the significance of correlation coefficient obtained Because thitung> ttable ie 4.4708> 2.42 at α = 0.01 then H0 is rejected, meaning that the correlation coefficient with Y X1 is very significant or showed a strong relationship. The results of the regression equation: 17.9109 + 0,8462X1, it is clear that any increase in the score results of school leadership is followed by an increase of 0, 8462 performance scores of educators, in other words the higher leadership of the principal, the higher the performance of educators in schools
2. There is a positive relationship with the school principals the ability to communicate the performance of educators. It can be seen from the correlation coefficient (). On testing the significance of correlation coefficient obtained Because thitung> ttable ie 8.7336> 2.42 at α = 0.01 then H0 is rejected, meaning that the correlation coefficient with Y X2 is very significant or indicate a very strong relationship. The results of the regression equation 6.0000 + 0,9310X2, showed that each increase of one score results ability to communicate principals followed by an increase of 0.9310 score educator performance, in other words, the higher the ability to communicate with the principal, the higher the performance of educators in school.
3. Put together a positive relationship leadership and communication skills with the performance of the school head teachers in SMA Negeri 1 Kota Gorontalo. On testing the correlation coefficient obtained significance of F = 38.63 Because Fhitung> Ftable is 38.63> 5.10 then the multiple correlation coefficient between X1 and X2 with Y is very significant or indicate a very strong relationship. The results of the multiple regression equation calculation shows that any increase in the score results of school leadership and communication skills of principals followed by an increase of 1.2538 score educator performance, or in other words the higher leadership and the ability to communicate the principal, the higher the performance of educators.

## BIBLIOGRAPHY

Danim, Sudarwan. 2012. *Otonomi Manajemen Sekolah*. Bandung: Penerbit ALFABETA

Mello, Jeffrey A. (2002). *Strategic Human Resource Management.* Cincinnati, Ohio: South-Western College Publishing.

Suyadi Prawirosentono. (2009). *Kebijakan Kinerja Karyawan.* Edisi Pertama. Yogyakarta: BPFE.


ISBN: 978-602-74576-0-7

Wheelen, Thomas L., and J. David Hunger. (2004). *Strategic Management and Business Policy.* Ninth Edition, International Edition. New Jersey: Prentice-Hall / Pearson.

Harvey, Don, and Robert Bruce Bowin. (1996). *Human Resources Management: An Experiential Approach.* International Edition. New Jersey: Prentice-Hall International, Inc.

Bernardin, H. John. (2003). *Human Resource Management: An Experiential Approach.* Third Edition. Boston: McGraw- Hill & Irwin.

Daft, Richard L., (2003). *Management. S*ixth Edition. Ohio: Thomson South-Western.

Robbins, Stephen P.. (2005). *Organizational Behavior*. Eleventh Edition. International Edition. New Jersey. Prentice-Hall / Pearson.

Robbins, Stephen P. and Mary Coulter. (2003). *Management.* Seventh Edition. International Edition. New Jersey: Prentice-Hall International, Inc.

Handoko, Hani. 2011. *Manajemen Personalia dan Sumber Daya Manusia*. Yogyakarta: BPFE-Yogyakarta

Hunger, David.J and Wheelen, Thomas L. 1996. *Manajemen Strategis*. Yogyakarta: Penerbit ANDI

Nasution, M.N. 2001. *Manajemen Mutu Terpadu*. Jakarta: Penerbit Ghalia Indonesia.

Riduwan & Akdon. 2010. *Rumus dan Data dalam Analisa Statistika untuk Penelitian*. Bandung: Alfabeta.

Robbins, Stephen P. 1994. *Teori Organisasi. Struktur, Desain dan Aplikasi.* Terjemahan. Jakarta: Penerbit Arcan

Waluyo. 2006. *Teori Komunikasi. Perspektif, Ragam dan Aplikasi*. Jakarta: Rineka Cipta.

Sudjiono, Anas. 2012. *Pengantar Statistik Pendidikan*. Jakarta: PT RajaGrafindo Persada.

Sugiyono. 2013. *Statistika untuk Penelitian*. Bandung: Alfabeta.

Tubbs, Stewart L. & Moss, Sylvia. 2006. *Human Communication.* UK: Alphabetica, Co.Ltd.

# ELEMTARY SCHOOL TEACHERS COMPETENCES OF THE 21st CENTURY AND BEYOND IN THE FAST DEVELOPING WORLD

**Prof. Dr. H Marzuki, MA**
*PGSD FKIP University of Tanjungpura Indonesia*

Abstract

In the era of globalization, the quality of teachers is the key to the nation's progress. The teacher is the main actor who interacted directly with learners in the learning process in school activities. One important element in the progress of learners learning is teachers who really care about, loving, sincere work and educating in its class. Teachers are required to be able to create a learning environment that is comfortable and safe so that students enjoy learning. Professional teachers in the 21st century are required to have four competency includes pedagogical competence, personality, social and professional. Teachers in teaching need to develop competence to teach and educate, coupled with character education. Teachers must be creative, innovative ways to change the practice of "teaching to learning". So professional teacher is a teacher who master subjects well and able to teach learners optimally mastered all the competencies required for teachers.

Key-words: Pedagogical, personal, social and professional competence.

## PRELIMINARY

Through educational activities international seminar in Yogyakarta in 2016, the speaker wants to share ideas and experiences. This activity started the speakers will begin with the question as follows: (i) how to be effective teachers to teach learners in implementing four teacher competence (ii) how the issue of teachers improve teaching and professional development in a globalized world of the 21st century?.

The progress of science and technology in a globalized world of the 21st century have resulted in changes in many areas of life, ie changes to the means of life, shifting values, social institutions and the education system as well as patterns of behavior as our society is alien to their own culture, forgotten predecessors, forgotten by history, the teacher forgot to services. These changes require human like teachers to create, utilize and develop the educational environment for the welfare of his life. In the world of education is inseparable from the effect of the development and progress of science and technology, even providing a challenge to the teachers to carry out a reform in the learning process.

In this country the way to an inspiring teacher, effective and professional already stretched. Professional development of teachers has now become something that surfaced publicly chamber along with the demand for quality education. This is confirmed again by the positive response from the government to establish the work of teachers as a profession. Government on December 2, 2004 issued Law No. 14 of 2005 on Teachers and Lecturers. In Chapter 1 of article 1, stated that the teacher is a professional educator with a primary task of educating, teaching, guiding, directing, train, assess and evaluate students on formal early childhood, primary, and secondary education. Accordingly, all teachers are required to carry out teaching duties and obligations in a professional manner.

In the world of education, the teacher is a key element in the whole process of education, especially at the institutional level and instructional. Teachers as a central point and the beginning of all educational development. The position of teachers in the implementation of educational development are at the forefront. The role of the teacher has a central position in the learning process. In other words, the successful implementation of the educational unit level curriculum is determined by the teacher. However good a curriculum or educational facilities if the teacher does not understand and carry out the duties and functions well, the results are not satisfactory implementation of the curriculum. Therefore, the professional development of teachers in the 21st century is a necessity in the successful implementation of education unit level curriculum.

The effective teacher inspires learners. The teacher is the main actor who interacted directly with learners in the learning process in school activities. Teachers are educators, who became role models


ISBN: 978-602-74576-0-7

learners and their environment. Therefore, teachers must have certain personal quality standards, which include the responsibility, authority, independence, and discipline. Given the important role of teachers hence the teacher really has competence in accordance with the demands of the profession. Each teacher is required to be able to understand and carry out the task of teaching with a deep love, patience and keihklasan. Teachers are required to understand and be able to implement the four competencies that teachers pedagogical competence, personality, social, and professional whole heartedly.

Processes and educational purposes wherever implemented will never achieve optimum results without professional educator. Good educator, in this case the teacher with adequate professionalism ownership, is an absolute requirement for the implementation of a good education process. Professional teachers will be able to direct the educational objectives build youth into a generation full of hope. Because ownership of the professionalism of teachers must always be fostered and developed with the expectation of quality or the quality of education can be increased.

Professional development of primary school teachers in particular, can not be separated from the main tasks and responsibilities of various other related teacher. Duties and responsibilities of teachers include teachers as educators, counselors, coaches, stylists learning environment, instructional planner, motivator, evaluators, inspiration, and curriculum developers.

**THE CHALLENGE TEACHERS IN EDUCATING AND TEACHING**

The challenge facing teachers is the challenge of globalization and the change of paradigm of the role of the teacher from teaching to learning (Gene e. Hall, 2008:20). Learning in the classroom should be shifted from the patterns of conventional teaching to learning patterns of constructivistics. If our reflections, one of the important factors which determine the quality of education is human resources, i.e. teachers include among other things the spiritual intelligence IQ, intelligence, the intelligence of the heart/emotional intelligence, social intelligence, mastery and implement competency teachers in educating and teaching.

We can not deny anymore, the teacher who was in the front row in shaping the quality of human resources. In the learning process of teachers dealing directly with learners. In the hands of the learner gurulah will be generated as the quality of the nation, both academically if thought (knowledge), the ability of sports skills (skills), as well as emotional maturity, moral and spiritual (affective). Thus will be produced the future generations who are ready to live with the challenges of globalization and noble character. In order to deal with things like the aforementioned needs of each teacher to develop themselves through lifelong learning through the neighborhood, experience, teamwork, learning resources and through cyber space, such as use of the internet.

Tasks and role of teachers in a professional manner quite heavy from time to time, along with the development of science and technology knowledge. Each teacher as a major component in education (as a learner / educator) is required to provide service learning well, lifelong learning so that they can offset even exceeded the development of science and technology developed in the community. Teachers educate and prepare students who have the ability to create, organize and maintain his creation so as not to cause havoc for themselves, society, and environment. Further able to make himself as a model and center fad, exemplary, and consultant for the learners. The teacher is able to be responsible in building the civilization of the future. Reflection through experience, performance, the accumulated wisdom of practice and a touch of follow innovative learning school teacher is expected to produce learners as Indonesia intelligent beings. They have high competence and competitive afford healthy, ready to face life's challenges with confidence and confidence is high.

Now and in the future, any school or educational institution should be able to create quality human resources, both scientific and mental attitude. Therefore, it takes a superior school that has the characteristics: (a) leadership (principals) are dynamic and communicative with the freedom to lead towards a vision of educational excellence; (b) has the vision and mission and the strategy to achieve the objectives that have been formulated clearly; (c) teachers are competent and spirited cadres are always passionate in carrying out their professional duties in an innovative way; (d) The teacher who is able to change the paradigm of "teaching to learning; (e) creative teacher - effective and able to organize learning or school environment a pleasant and able to provide meaningful learners, (f) the students were busy studying, passionate and work hard to realize the

learning behavior; (g) the public and parents who participated in supporting education (Parkay 2008: 20)

## THE CHANGING PARADIGM LEARNING AND DEVELOPMENT IN PRIMARY SCHOOL TEACHER PROFESSIONALISM.

On the micro level, the learning paradigm shift from teaching to learning models or teacher centered to student centered. Learning from textual to contextual models, from ekspositorik to participatory. Paradigm of learner-centered learning is one way to improve the quality of education, especially learning process. In essence, learning as a process of discovery and build or construct their own knowledge so that meaningful learning through real experience and social interaction between learners and teachers. (Richard Arends, 2007: 15)

Characteristics of professional teachers (i) have positive expectations for the success of their students, (ii) as a manager class that is reliable, and (iii) know how to design lessons to help his students, to master the lesson well (iv) a commitment to professionalism inherent attitude dedicatio, commitment to quality process and the work and attitude of improvisation sustainable, (v) control and capable of transformation, internalization and implementation of science to students, (vi) to educate and prepare students who have the ability to create, organize and maintain his creation so as not to cause havoc for themselves, society, and environment. (vii) able to establish itself as a model, an example for their students, (viii) able to be responsible in building the civilization of the future. The status and position of teachers as professionals aim to implement the national education system and at the same time realizing the goal in elementary school with a contextual approach, Scientific and Thematic learning model. To achieve professional criteria, teachers must undergo a process towards professionalization or professional degrees true continuous basis, including the competence to manage the class. Coaching and professional development and careers of teachers covers development of pedagogical competence, personal competence, social competence, and professional competence continuously improved.

Talking about the teacher's performance improvement or development of professionalism in order to implement the Curriculum Based on Competency, and Curriculum 13 can not be separated from the main main tasks and responsibilities of various other related teacher. Duties and responsibilities of teachers include many things, that teachers can act as teachers, class leaders, supervising, regulating learning environment, instructional planner, supervisor, motivator, evaluators, innovators, as well as other tasks related to his status as a teacher of Islamic religious education.

Teachers must have the characteristics of a professional. First, a commitment to professionalism inherent dedikatif attitude, commitment to quality processes and work (products), and the attitude of continuous improvement (continuous improvisation). Second, control and able to develop and explain the function of science in life, able to explain the theoretical and practical dimensions. In other words, capable of transformation, internalization and implementation of knowledge to learners. Third, educate and prepare students who have the ability to create, organize and maintain his creation so as not to cause havoc for themselves, society, and environment. Fourth, is able to make itself as a model and fad center (center of self-identification), exemplary, and consultant for the learners. Fifth, able to be responsible in building the future of civilization (civilization of the future). To meet the performance demands of a good teacher, then the teacher professional development becomes a necessity. When this is unavoidable or not executed then the expected increase in the quality of education will never materialize.

The status and position of teachers as professionals aim to implement the national education system and also to realize the goal. To achieve professional criteria, teachers must undergo a process towards professionalization or professional degrees true continuous basis, including the competence to manage the class. Under Law No. 74 in 2008 to distinguish between coaching knowledge and competence development of teachers who have not already qualified and the S-1. Development and increased competence for teachers who already have a


ISBN: 978-602-74576-0-7

teaching certificate done in order to keep its professionalism competence remains in compliance with the development of science, technology, arts, culture, and or sports. Coaching and professional development and careers of teachers covers development of pedagogical competence, personal competence, social competence, and professional competence.

We can not deny anymore that the teacher has a dual role in the world of education, namely to educate, train, guide, motivate, and as the first parents at the school. Teachers play an important role in implementing the curriculum up to date (such as Curriculum 2013), because gurulah which will eventually implement the curriculum in the classroom. Therefore, the teacher as the curriculum goes then every teacher is required to have the ability to develop and implement an outright four-kan namely pedagogic competence, personality, social and professional.

To face globalization era filled with competition and not certainty, it takes a visionary teacher and is able to manage the learning process in an effective and innovative. Necessary changes in strategy and learning model that gives a feel that is fun for teachers and learners (Marzuki, 2009: 7). What is known as "Quantum Quantum Learning and Teaching", which in essence is to develop a model of constructive teaching-learning strategies are innovative and effective as possible in a pleasant atmosphere and passionate and meaningful.(Gene E. Hall, 2008: 25).

In the past and maybe now, the atmosphere of the learning environment is often perceived as an environment of torture / place to look for errors, boring, less stimulating, and takes place a monotonically so that students are forced to learn and less passionate. On the other hand, the teachers are also in a less favorable environment and are often trapped in a daily routine. Therefore, the necessary changes in "mind set" - the teacher changes the paradigm (mindset) teachers, from the traditional mindset to the mindset of professionals commonly called "teaching to learning". Teachers are required to be able to master the four core competencies include pedagogical, personality, social and professional, and are certified teachers as educators. Paedagogik competence is the ability of teachers to manage learning that includes an understanding of learners, designing and implementing learning, evaluation, and development of learners to mengaktualiasasilakan potential. Basically this learning process is the ability of educators to help the development of the full potential learners.

Personal competence that the teacher has a personality that is stable, mature, wise and authoritative, become role models for students and noble. Teachers are role models for students and the surrounding community. Therefore, a steady personality becomes a basic requirement for teachers that are not easily wandered blindly psychological makeover by changing circumstances secar both positive and negative dynamic. With this kind of personality to be able to perform an authoritative teacher, wise in greeting and educating students, and intelligent in serving the community with all the difference.

Social competence is the ability to communicate effectively with students, fellow teachers, staff, parents of students, and surrounding communities. Teachers should avoid selfish attitudes, attitudes which only promote their own interests. Teachers should avoid selfish attitudes. Teachers must be sociable, friendly to students and parents maupum society in general. The teacher is a figure that can be smoothly communicate keselagala direction. So the key to the success of teachers in fostering and mto teach students and other community members are located on how the teacher's ability to interact soasial this to students and other community members.

Professional competence is the ability to be able to master the learning materials widely and mendalah that allows teachers to guide the students to meet minimum competency standards that should be controlled pleh learners. Teachers are required to dominate with both subjects fosterage, since their knowledge of the basics to how to teach the methods and techniques as well as how meneliai and evaluate students who follow the teaching and learning process. The end of the learning process is the learner has the minimum competency standards that must be mastered well, so that he may be able to perform activities in accordance with these competencies. The principal and central in the learning process is the role of teachers, where teachers must be professional that is able to make changes in various aspects such as the reflection of performance, learning, developing

resources, approaches, methods, strategies, media, prepare contens curriculum and the learning process it self. So professional teacher is a teacher who master subjects well and able to teach learners optimally mastered all the competencies required for a teacher.

TIPS LEARNING IN PRIMARY SCHOOL

Paradigm that must be considered by the teacher in the face of globalization and the challenges teachers in implementing the learning or curriculum in class as follows:

1. Reflection of performance themselves, especially in terms of weaknesses. Teachers are not easy to spit sounds wonky, satirical or pitched blame only to the learners. Furthermore, after reflecting weaknesses, continues to take steps and develop skills, such as (i) improvement of design learning creatively, (ii) create and implement their own strategies innovative learning, (iii) Inspiring to help foster the ideals of learners, (iv) motivating by moving a passion for learning, (v) Facilitative by providing resources and support during the learning process.
2. Educate and prepare students who have the ability to create, organize and maintain his creation so as not to cause havoc for themselves, society, and environment.
3. Develop and implement strategies and models of active learning, innovative, creative, effective and fun that can stimulate the motivation of learners.
4. Creating learning fun, exciting, interactive-communicative, polite, fair, democratic, dialogic, challenge and develop the skills of each learner, and encouraging learners.
5. Mastering the various strategies and approaches such as scientific, contextual, constructivist and thematic learning so that the learning process takes place in a conducive atmosphere, fun and meaningful.
6. professionals with the advanced knowledge learning practices, with sincerity, sincerity, loyalty, intimacy politeness, patience, love, joy, improvisation, self-control to fulfill the job.
7. Do not get stuck on mere routine, but always develop and empower themselves continually to boost the qualifications and competence, both through formal education and training, seminars, workshops, and similar activities.
8. Creative - Innovative and master the material and can implement pedagogical correctly.
9. Placing themselves as facilitators of learning and study buddy.
10. Modify and enrich the learning materials so that learners obtain a more varied learning resources.
11. Liking what he taught and loved teaching as a profession that is fun.
12. Following the development of science and cutting edge technology that has broad insight and not left behind with the latest information, thus becoming an effective teacher in teaching and learning activities.
13. Making herself as a model and example for the students and the wider community always shows the attitude and actions are commendable and have high integrity.

CONCLUSION

Learning activities must be centered on the learner and the teacher as facilitator noble, strategy, media and a variety of learning models. The key to success lies in respect of education to students. Being a professional teacher in the 21st century demanded always develop the competence to teach and educate, coupled with character education. Teachers are required to be creative, innovative ways to change the practices "teaching to learning". So professional teacher is a teacher who master subjects well and able to teach learners optimally mastered all the competencies required for teachers.

Improving the quality of education can be through the creation and development of teachers or teacher professional (i) creative by designing learning, (ii) innovative by creating and implementing their own learning strategies, (iii) inspiring to help foster the ideals of learners, (iv) motivating by moving a passion for learning, (v) facilitating the supply source


ISBN: 978-602-74576-0-7

and support during the learning process, so as to create an atmosphere conducive to the inner quality learning.

Refferences:

Gene E. Hall, Linda F Quinn; and Donna M Gollnick, 2008. *The Joy of Teaching, Making a Defference in Student Learning*. Las Vega, University of Nevada, Pearson Education, Inc.

Parkay 2008. *Becoming a Teacher*. Boston, Pearson Education, Inc.

Marzuki, 2009. *Marvelous of Learning* . Precented in the Educational Seminar in FKIP University of Tanjungpura, at May 2 – 3 - 2009.

Richard I Arends, 2007. *Learning to Teach.* New York, McGrawl Hill Companies, Inc.

# UTILIZATION OF E-LEARNING IN THE CLASS OF ECONOMICS TEACHING AND LEARNING STRATEGY FOR STUDENTS OF THE ECONOMICS EDUCATION STUDY PROGRAM IN 2015

**KIROMIM BAROROH**[†]

*Economics Education Department, Yogyakarta State University,*
*Colombo Street Sleman Yogyakarta State 55281, Indonesia*

**BARKAH LESTARI**

*Economics Education Department, Yogyakarta State University,*
*Colombo Street Sleman Yogyakarta State 55281, Indonesia*

**SUWARNA**

*Economics Education Department, Yogyakarta State University,*
*Colombo Street Sleman Yogyakarta State 55281, Indonesia*

**Abstract**

The objective of the research concerned here was to determine 1) the utilization of e-learning in the class of Economics Teaching and Learning Strategy, 2) the learners' response during the teaching and learning using e-learning, and 3) the factors supporting or hindering the utilization of e-learning. The research was quantitative in nature. The data originated in the response given by respondents. The research population consisted of the students enrolling in 2013 and 2014 in the Economics Education Study Program and taking the subject of Economics Teaching and Learning Strategy . The instruments used to collect the research data were a questionnaire, interview guide, observation sheet, and documentation set. The research results are as follows. 1) The utilization of e-learning in the class of Economics Teaching and Learning Strategy covers the material or reading matter, chat or forum, assignment, and quiz features. 2) The overall mean score for response according to the questionnaire is 3.8 so that it is good in category. The highest score is for response in the form of interpretation while the lowest is for that in the form of interaction. 3) The supporting factors are a. the Internet connection sufficiently easy to be accessed by the students and the lecturer and the sufficiently adequate infrastructure for it at UNY, b. lecturers' and students' sufficiently adequate competence in accessing the Internet, and c. the university policy allowing the use of e-learning four times per semester per subject per class and giving the lecturer room for developing e-learning. The factors hindering the utilization of e-learning are that a. students with the auditory learning style experience difficulty in understanding the intention of written material in the reading matter, b. the materials for the class of Economics Teaching and Learning Strategy are not all effective in the teaching and learning using the computer as media, c. a constraint from the part of students is that there are students who are not yet able to be directly active in operating the Be-Smart program used in the e-learning because they forget the password or code given by their lecturer, d. students also still take the attitude of waiting for the lecturer's order to access the e-learning, e. sometimes in the students' region of origin the e-learning is unapplicable because not all regions have

[†] .

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

good Internet connections, and f. the migration of the Be-Smart program from Version 1 to Version 2 also hinders the teaching and learning using the e-learning.

Keywords: e-learning, Economics Teaching and Learning Strategy

## INTRODUCTION

### n. *Background*

Technological advancement is at this time moving very quickly. Teaching and learning models would develop all the time along with the development of the times. When it used to be enough for teachers to use a blackboard and chalk as teaching and learning media, at present there is a demand for teachers possessing competence in utilizing teaching and learning media related to such information technology as Virtual Learning Environment (VLE). In the ongoing era of globalization, the development of e-learning is greatly required to aid the educator in delivering teaching material in accordance with the teaching and learning objective.

In the course of utilizing information technology to support teaching and learning activity, UPT Puskom UNY (*Unit Pelaksana Teknis Pusat Komputer Universitas Negeri Yogyakarta*), a computer center which is one of the technical executive units at a state university in Yogyakarta, has built a system of e-learning at UNY. It is implemented with the integrated online teaching and learning paradigm by using an LMS (Learning Management System) called Moodle. The system of e-learning is already in function and is accessible through the URL: http://besmart.uny.ac.id. (Herman D. Surjono, 2009). The presence of e-learning is not to replace the educator's position. In fact, it is to ease the transfer of knowledge to learners. Currently, for the Economics Education Study Program at UNY, not less than thirty-eight subjects are provided in the curriculum. That number is surely still far below that of the subjects provided for the Economics Education Department, which is seventy-six (Curriculum 2014). Therefore, it is necessary to know the utilization of e-learning in the teaching and learning of those subjects and the students' response to it. It is also similarly necessary to know the factors supporting and the factors hindering the teaching and learning using e-learning.

One of the classes utilizing e-learning in its teaching and learning is that of Economics Teaching and Learning Strategy. The class of Economics Teaching and Learning Strategy has the objective of enabling the students to understand the basic concepts of the teaching and learning strategy, the standard educational process, teacher professionalism, the teaching and learning in the standard educational process, the teaching and learning method and media, basic teaching competence, the reenforcement of the teaching and learning process implementing KTSP (*Kurikulum Tingkat Satuan Pendidikan* 'Educational-Unit Level Curriculum' or 'School-Based Curriculum') and Curriculum 2013, PAIKEM (*Pembelajaran Aktif, Inovatif, Kreatif, Efektif, dan Menyenangkan* 'Active, Innovative, Creative, Effective, and Pleasing Teaching and Learning'), the teaching and learning model, the inquiry strategy, the cooperative teaching and learning strategy, the affective teaching and learning strategy, the contextual strategy in economics teaching and learning, the thinking competence improvement teaching and learning strategy, the e-learning strategy, and the scientific teaching and learning support model, which consists of 1. Project-Based Learning (PjBL), 2. Problem-Based Learning (PBL), 3. Discovery Learning, and 4. Inquiry Learning. Since the e-learning strategy is part of the material in the class of Economics Teaching and Learning Strategy, the students need to immediately acquire the strategy in class in order that they could utilize it in their teaching in the future.

Economics Teaching and Learning Strategy is a compulsory subject for students of the Economics Education Study Program. At present the teaching and learning still generally use the classical way and even photocopies on paper. Students' papers and assignments are generally still submitted in the form of printed and bound sheets of paper. It is surely a form of wasting.

With e-learning, the teaching and learning material could be paperless so that it could lessen global warming. In the teaching and learning, the teacher transfers not only knowledge but also attitude. As educator, the teacher could teach through the behavior of lessening such wasting as paper wasting. One of the efforts made is to use the soft copy. By

using the soft copy, it would be possible to deliver greater quantities of teaching and learning materials.

Through e-learning, teachers or lecturers (i.e., university teachers) could manage the class materials by constructing the syllabus, uploading the class materials, assigning tasks to students, receiving students' work, making a quiz or test, giving marks, monitoring students' activeness, processing students' scores, and interacting with students and fellow lecturers through the features of forum or discussion, chat, and so on. Students could also likewise gain access to information and lesson materials, interact with fellow students and with lecturers, making a delivery of class assignments, doing a test or quiz, seeing the extent of their learning achievement, and so on.

Johannes (2010) recommends that (1) the lecturer first identifies the class to be the intended audience (best to consist of students already entering the third semester of their study because then at least they have become accustomed to the scientific domain), this being included in the general conditional evaluation of where the students could get access to the Internet and how far their literacy of the Internet is, (2) then the lecturer communicates it to internal stakeholders, the faculty and department as well as colleagues, to gain support and simultaneously as part of the dissemination, (3) after that the lecturer starts with a subject in the curriculum, gradually bringing about participants' involvement in such activities as downloading materials, giving responses, and interacting with both the lecturer and fellow participants, and (4) once starting to provide online service, the lecturer should continuously make changes.

The objective of this writing is to concern itself with the utilization of e-learning in the class of Economic Teaching and Learning Strategy, the learners' response during the teaching and learning using e-learning, and the factors supporting as well as those hindering the utilization of e-learning.

Many educational experts have made definitions of e-learning. According to Heather Fry et al. (2013: 104),

a. e-learning is something that occurs when students learn with communication and information technology rather than with mere sets of systems and equipment,

b. e-learning could be done in classes of distance learning or those with a campus as base,

c. e-learning is usually widely perceived as a means of allowing students to act as practitioners in their field and of allowing the lecturer to use various approaches in implementing learning, in practice there being more than one way to conduct e-learning, and

d. e-learning is not something done by the lecturer because it is something possible to be done by students.

Thus, e-learning is a teaching and learning activity utilizing information technology in guiding students as practitioners in their field and in making them subjects in the teaching and learning activity. E-learning could be used as one of the responses from the teaching and learning activity. The following presents hypothetical teaching and learning situations and the e-learning responses possible to be done.

James J. Cappel and Roger L. Hayen (2004) classify e-learning into several types as follows:

1. *Self-paced independent study*. This entails users taking online courses at their own schedule and pace. Learners do not have others available to which to direct their questions, and feedback takes the form mostly of online quizzes. This type of e-learning requires the most dicipline and self-motivation.
2. *Asyncronous interactive*. This approach allows users to participate with the instructor and other students but not at the same time. It is not usually as self-paced, and feedback is available from others through the use of discussion boards and other means. Examples of this type are not rarely found in the Internet whether they are simple ones or integrated through the e-learning portal.
3. *Synchronous learning*. This e-learning approach is the most like an actual classroom. There is a set schedule, and participants meet in real time. The teacher and the learners should be in front of the computer at the same time because the teaching and learning process is conducted live whether it is through video or audio conference.

In addition, Herman D. Surjono (2009) mentions still one more term, namely, blended learning, which refers to the teaching and learning activity that


ISBN: 978-602-74576-0-7

combines some of its possible forms such as online, live, and face-to-face (conventional) activity.

**o.** *Design and Development of the Online Educational System*

In the building stage of the system, attention needs to be paid to matters of design and development as outlined as follows:

a. *System design and development*. The process of instructional development for online education consists of the planning, development, evaluation, and revision stages. In designing an effective online educational instruction, attention should be paid to not only the objective, requirement, and characteristics of lecturers and students but also the content requirement and technical obstruction possible to occur. Revision is done by using as basis the input from the instructor, content-making specialist, and students concerned during the process.

b. *Interactivity*. The success of the system of long-distance education is determined by, among others, the occurrence of interaction between the lecturer and the students, between the students and the environment of the education, and among the students themselves.

c. *Active learning*. Active participation in the part of the participants of education influences the way how they relate themselves to the material to be learned.

d. *Visual imagery*. Learning through television could motivate and stimulate enthusiasm in the learning process. However, no distortion because of the occurrence of entertainment should be allowed to happen. There should be a selection separating useless information from quality information, determining which is proper and which is not, identifying deviations, distinguishing facts from what are not facts, and understanding how technology could give quality information.

e. *Effective communication*. Instructional design begins with understanding the hope of users and getting to know them as individuals with views differing from that of the system planner. By understanding users' wishes, an effective communication is attained (Hamzah B. Uno, 2009: 35).

Johannes (2010) states that the utilization of e-learning requires the activities mentioned as follows:

*a.* *Audience Preparation*. Participants of each class should be evaluated from the point of the degree of their familiarity with the use of the Internet, indicated at least by whether they already have an e-mail address.

b. *Content Planning*. Planning how the content appears becomes an important matter. The principle is that the appearance should be welcome to all users. The teacher concerned should not imagine that the online result of his or her personal planning serves class participants only; more than that, it would serve all lovers of online service. In relation with it, the content should be divided into the main and supplementary parts. The main part is a kind of publication related to a certain curriculum subject and it could be in the form of a class PowerPoint (or ppt) presentation, an additional or complementary paper, an important address, and others. In addition to the main part, a supplementary part, in nature an added feature to the main part, is also required. Since it is a feature, its users are not only the class participants but also other users who are not the participating students.

c. *Interaction Modeling*. Interaction is an important part in a page of a website intended for active learning. The interaction covers that from the students to the lecturer and that among the students. The interaction occurs in the form of writing but it should be kept in mind that the interaction should encourage the students to get themselves involved honestly and creatively.

d. *Evaluation Modeling*. A certain page in a site is intended for a learning process and therefore the evaluation model should be included from the start. The evaluation could be in a test or non-test form. The evaluation through a test could be to see competence in analyzing and synthesizing each case or inquiry.

e. *Continuous Innovation*. The page or site is a part that should continuously improve and should therefore be always given improvements. An image that should be built up is that the site intended for the users would offer something different compared to others.

**p.** *Factors Supporting Information Technology in Education*

Information technology, which is the main material of e-learning itself, has a role in generating a quick, accurate, orderly, accountable, and reliable service. In the course of attaining that objective, there are several factors influencing information technology, namely, as follows:

1. infrastructure,
2. human resource,
3. policy,
4. financial matter, and
5. content and application (Soekartawi, 2003).

The abovementioned factors are to be well-considered in order that the information technology could develop fast. First, there is a need for an infrastructure that enables access to information anywhere with sufficient speed. The infrastructure required to support the implementation of learning based on communication and information technology covers server computers, the Intranet, Internet access, and client computers for the lecturer and the students. Second, in relation with the human resource, there is a demand for the availability of human brains that master high technology. Third, there is also a demand for the existence of macro- and micro-scale policies taking the side of a long-term development of information technology. Fourth, in relation with the financial factor, there is a need for the presence of a positive attitude in the part of banks and other financial institutions as shown by their support of the information technology industry. Fifth, in relation with the factor of content and application, there is a demand for the occurrence of information delivered to the right people, in the right place, and at the right time as well as for the availability of the applications for the delivery of the content conveniently and comfortably to its users. E-learning, as one of the products of information technology, surely also requires factors supporting the generation of quality education. The factors are, first, a policy acting as umbrella which covers, among others, the cost system and direction of development, second, content or material development implying that, for example, the curriculum should be based on communication and information technology, third, preparation of teaching staff, and, lastly, provision of the hardware.

**q.** *Previous* **Research**

Research by Numiek Sulistyo Hanum (2013) indicates that the implementation of teaching and learning by means of e-learning at SMK Telkom Sandhy Putra Purwokerto, a vocational high school, meets the standard for the implementation of e-learning with the component of lesson planning being sufficiently effective with a tendency of 77.57%; the component of material design and construction being sufficiently effective with a tendency of 75.14%; the component of teaching and learning delivery using e-learning being sufficiently effective with a tendency of 75%; the component of teaching and learning interaction being sufficiently effective with a tendency of 66.10%; and the component of evaluation of teaching and learning implementation using e-learning being sufficiently effective with a tendency of 69.01%. On the whole, it could be concluded that the teaching and learning implementation using e-learning as teaching and learning media at SMK Telkom Sandhy Putra Purwokerto has been sufficiently effective with a degree of tendency of 77.27%. It also indicates that the implementation of e-learning at SMK Telkom Sandhy Putra Purwokerto has not been fully effective for all teachers at SMK Telkom Sandhy Putra Purwokerto because of some factors of the implementation that have not been optimum yet.

All this time the teaching and learning of Economics Teaching and Learning Strategy has been generally with considerable use of the lecture, discussion, and assignment-giving method through classroom teaching and learning. In the present era of globalization students are faced with the challenge of having to be capable of developing a teaching and


ISBN: 978-602-74576-0-7

learning model utilizing information technology. Therefore, students should be made accustomed to being able to utilize learning technologies. One of the technologies is referred to here as e-learning, which is allowed to be applied in four class sessions for each curriculum subject per semester in accordance with academic regulations at UNY. Hopefully, this type of teaching and learning strategy could be utilized to the optimum by students in order that they could conduct learning in any situation.

## RESEARCH METHOD

The research concerned here was quantitative in nature. The data originated in respondents' response. The research population consisted of students of the Economics Education Study Program enrolling in 2013 and taking the subject of Economics Teaching and Learning Strategy in Class B and those enrolling in 2014 and taking the same subject in Class B and *Kelas Unggulan* ('Class of Excellence') totaling to seventy-six students in all.

The instruments used to collect the data in the research were a questionnaire, an interview guide, an observation sheet, and a set of documentation. The following is a grid table of the research instruments:

**Table 1. Grid of the Research Instruments**

| Variable | Indicator | Instrument |
|---|---|---|
| E-Learning Utilization | Program Appearance | Observation Sheet, Media Expert's Evaluation |
| Student's Response | - Thinking Reflection<br>- Interaction<br>- Teacher Support<br>- Peer Support<br>- Interpretation | Questionnaire |
| Supporting and Hindering Factors | - Supporting Factors<br>- Hindering Factors | Questionnaire and Interview Guide |

The technique of data analysis used was the quantitative descriptive statistics analysis technique with the use of the mean.

## RESEARCH RESULT AND DISCUSSION

### 3.1 Utilization of E-Learning in the Class of Economics Teaching and Learning Strategy

The utilization of e-learning by the lecturer is done through the following steps.

a. Audience Preparation
   The preparation activity done was already asking the students at the beginning of the first class to have an e-mail address with uny.ac.id. as the domain. The lecturer gave each student an enrolment key as the code enabling him or her to enter. Because of the use of the code, not everybody could see the material presented in the e-learning. Only the students taking the class could see it.
b. Content Planning
   The content was of the material uploaded by the lecturer. The material could be in the form of ppt presentation, word document, or video. In the case here, any video used was obtained by the lecturer by merely linking to a video in YouTube. The lecturer also told students that the video was not of his or her own making.
c. Interaction Modeling
   The interaction model used an online forum. At the beginning, the lecturer already informed the students that, in addition to classroom activity, they could also have a discussion with fellow students and also with the lecturer in that forum. In the forum, when there were questions, students could answer them. When the answers were still not quite right, the lecturer clarified them or gave reinforcement.
d. Evaluation Modeling
   The evaluation was done through a test or non-test means. The test type of evaluation was through a quiz and a set of questions that students should respond to. The non-test type of evaluation was through their activeness in submitting assignments with those who submitted assignments within the time allocated getting a greater bonus than those who did it too late.
e. Continuous Innovation

The content and appearance of the e-learning was taken to a consultation with material and media experts. In the planning stage of the use of e-learning in the class of Economics Teaching and Learning Strategy, the lecturer did the following activities:

a. making the teaching and learning using e-learning fit the syllabus or RPP (*Rencana Pelaksanaan Pembelajaran* 'Teaching and Learning Execution Plan'),
b. making a grid of the e-learning, and
c. discussing it with fellow lecturers involved in team teaching.

The use of e-learning at the implementation stage of the Economic Teaching and Learning Strategy class was for presentation of the material, chat, forum, and quiz features. The most frequently utilized feature was the reading matter or material.

The activities facilitated were in response to the reading matter, chat, word list, forum, quiz, survey, and assignment features. The activity-facilitating feature most frequently accessed by the students was the reading matter. Uploaded by the lecturer, it would then be downloaded by the students.

The evaluation done by media experts in relation with the e-learning was on the two following aspects:

1. the aspect of appearance and

2. the aspect of programming.

According to the evaluation done together with the team of experts in e-learning, it was found as follows:

The recommendation from reviewer 1 implies that it is already good enough but it needs to be continued and improved, the material in the form of ppt presentations needs to be increased in quantity, and a forum for meetings through the Skype feature needs to be made. Reviewer 2 gave the recommendation that though in outline or in general the media was already fit to use but a little revision for improvement or a little minor revision was needed in order to be more optimum in performance.

Both reviewers stated that the e-learning used as strategy of economics teaching and learning was fit for field testing after the revision suggested.

The e-learning was used to present material, chat, forum, and evaluation matter. What was most often utilized was the reading matter or the material itself. The material consisted of reading matter, ppt presentations, material-related journals, and videos. The forum was utilized for question-and-answer sessions between the lecturer and the students and between students.

The e-learning was also utilized for evaluation in both quiz and assignment forms. At this stage the lecturer evaluated the aspect of the students' activeness in using the e-learning as seen in their activeness in, among others, participating in the forum and the discussion (or chat), submitting assignments, and giving response. In the e-learning, the lecturer gave assignments that should be accomplished by students within certain durations of time. The submission time given by the lecturer was until midnight. However, it was also possible for the lecturer to give the assignment after that. Once there was a case of students too late in sending an assignment. They had not noticed the deadline given for the assignment submission. In result, they could not send their assignment in time. But finally they could ask the lecturer to make it possible again for them to send their assignment to the lecturer. However, it was also possible for the lecturer to have that same assignment of theirs be sent in another form. The lecturer asked the students to send that same assignment of theirs in hard copy. Of course there was more sacrifice in the part of the students because then they had to have it printed and bound first before delivering it to the lecturer.

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

**Table 4. Learners' Response Mean Score During the Teaching and Learning Using E-Learning**

| Response | Mean | Category |
|---|---|---|
| Thinking Reflection | 3.81 | Good |
| Interaction | 3.54 | Good |
| Teacher Support | 3.87 | Good |
| Peer Support | 3.68 | Good |
| Interpretation | 3.91 | Good |
| **General Mean** | 3.76 | Good |

The mean score in general for questionnaire-based response was 3.76 of a range from 1 to 5. Therefore, it could be categorized good. The highest score was for response in the form of interpretation. Meanwhile, the lowest was for response in the form of interaction. The interaction covered the activities of students explaining an idea to other students, students asking other students to explain an idea, students being asked by other students to explain an idea, and students giving response to each other through the forum or chat feature. Interaction was among the lower in score according to observation of the activities of students doing the e-learning; students rarely did the said activity in the learning.

In the forum display given by the lecturer above, there were no students participating. The lecturer indeed did not directly ask the students to give answers. However, if the lecturer had asked them to actively participate in it, the students would have been active.

In relation with the overall mean score for students' response according to interviews, the mean score for response in the form of utilization of e-learning by the students enrolling in 2014 is known to be 2.7 while that for those enrolling in 2013 is known to be 3.4. Therefore, the response of the students enrolling in 2014 has been fair in category while that of those enrolling in 2013 has been good in category.

### 3.2 Factors Supporting the Utilization of E-Learning and Those Hindering It

**Supporting Factors:**

a) The Internet connections have been sufficiently easy for both the students and the lecturer to access. The infrastructure for Internet connection at UNY has been sufficiently adequate. From year to year the capacity for e-learning at UNY has been kept being improved.
b) In relation with human resource matter, the learners' competence in accessing the Internet has been sufficiently adequate. All the students have been able to access the e-learning.
c) The university policy of giving the allowance for using e-learning four times per semester per curriculum subject taught has given the lecturer room for developing e-learning

### 3.3 Hindering Factors:

a) Students who have the auditory learning style have had difficulties in understanding the intention of the material written in the reading matter.
b) An occurring constraint has been that not all materials for the class of Economics Teaching and Learning Strategy have been effective when delivered by using computer media. There are many teaching and learning activities that are more effective when done cooperatively or collaboratively.
c) There has been a constraint from students not yet able to be actively operating the Be-Smart program for the reason of forgetting the password or code given by the lecturer, for example. The students have also still taken the attitude of waiting for the lecturer's order to access the e-learning. The students of the Economics Education Study Program have come from various regions of origin. Sometimes e-learning has been unapplicable in certain regions because the teaching and learning of e-learning do not occur in all regions. The Be-Smart migration from version 1 to version 2 has also become a constraint.

CLOSING

**Conclusion**

1. The utilization of e-learning in the class of Economics Teaching and Learning Strategy covers the provision of the material or reading matter, chat or forum, assignment, and quiz features. According to media experts, the e-learning used is already fit to use with revision.

2. The overall mean score for the students' response according to the questionnaire is 3.76 so that it is good in category. In relation with the form of response, the highest mean score is for interpretation while the lowest is for interaction.

3. The supporting factors are as follows: a. an Internet connection sufficiently easy to be accessed by students and lecturers and a sufficiently adequate infrastructure at UNY, b. lecturers' and students' sufficiently adequate competence in accessing the Internet, c. the university policy allowing the use of e-learning four times per semester per curriculum subject per class of students and giving the lecturer room for developing e-learning. The factors hindering the utilization of e-learning are as follows: a. students with the auditory learning style experience difficulties in understanding the intention of the material written in the reading text, b. not all the materials for the class of Economics Teaching and Learning Strategy are effective in being delivered by using the computer as media, c. there is a constraint in the part of students who could not yet be immediately become active in operating the Be-Smart program for such reasons as forgetting the password or code given by the lecturer, d. students also still take the attitude of waiting for the lecturer's orders to access e-learning, e. sometimes, in the students' regions of origin, e-learning is unapplicable because not all regions have good Internet connections, and f. the migration of the Be-Smart program from Version 1 to Version 2 also hinders e-learning.

**Suggestion**

1. Lecturers utilizing the e-learning is given training in migrating from Version 1 to Version 2 of the Be-Smart program used.
2. Further research is required concerning efforts to develop e-learning.

**References**


47. Hamzah B. Uno. Model Pembelajaran, Menciptakan ProsesBelajar Mengajar yang Keatif dan Efektif. Jakarta: Bumi Aksara , (2009)

48. Heather Fry, *Handbook Teaching and Learning*, terjemahan Ahamd Aznawi. Riau: Zanafa Publishing, (2013),

49. Herman D.Surjono. *Modul Pelatihan E-Learning UNY*.UNY(2009)

50. James J. Cappel and Roger L. Hayen, Central Michigan University, Mount Pleasant, Michigan Evaluating E-Learning: A Case Study. The journal of Computer Information System;Summer 2004;44 4;proQuest Science *Journals* pg.49

51. Johannes .Pemanfaatan ICT (*Internet*) Menopang Pembelajaran Aktif Di Perguruan Tinggi (Staf Pengajar Fakultas Ekonomi Universitas Jambi). (2010)

52. Numiek Sulistyo Hanum (2013) *Jurnal* Pendidikan Vokasi Jurnal Pendidikan Vokasi, Vol 3, Nomor 1, Februari 2013 Keefektifan E-Learning Sebagai Media Pembelajaran (Studi Evaluasi Model Pembelajaran E-Learning SMK Telkom Sandhy Putra Purwokerto) Program Studi Pendidikan Teknologi dan Kejuruan PPs UNY

53. Paetzold, S.P. and Melby, Nathaniel, J. *Active Learning Strategis for Computer Informarmation* System *Education in Online Cours*e, Viterbo University, The Journal of Global Issue, pp. 13 – 17(2008).

54. Soekartawi. *E-Learning di Indonesia dan Prospeknya di Masa Mendatan*g,Makalah pada seminar nasional 'E-Learning Perlu E-Library' di Universitas Kristen Petra, Surabaya.( 2003).

Saifudin Azwar: *Penyusunan Skala Psikologi*. Yogyakarta:Pustaka Pelajar , (2010)



ISBN: 978-602-74576-0-7

# IMPLEMENTING ARTS LESSON IN SENIOR HIGH SCHOOL USING 2013 CURRICULUM

**Wida Rahayuningtyas**
Lecturer of Dance and Music Education
Fine Arts and Design Departsment Faculty of Letters
State University of Malang
(swidarahayu@yahoo.com)

**ABSTRACT**
In order to be relevant and contextual to the modern changes, education should be continuously adapted and adjusted with the development of education and advance innovations in technology. To build modern society which shares the same goal, arts lesson should be generated to create children with creative and analytical thinking, creativity, productivity and aesthetic perspective. The implementation of arts education in senior high school is obviously something challenging for many teachers. Eventhough some necessary adjustments were made to make the teaching and learning suitable with 2013 curriculum, the main objectives of arts education should not be forgotten. One of the main issues that become the ultimate concern is the teaching strategies and methods chosen since each student has their own expectation and capacity in arts lesson.

**Key Word :** Arts lesson, 2013 curriculum

## INTRODUCTION

In facing global industrial era and the vast development of global trade, Indonesia as one of the developing countries in the world should carefully prepare the human resources in terms of mental and physical readiness. Science, technology and arts hold the ultimate concerns in the field of global development and acquisition. The exploration and exploitation of natural resources require the presence of highly qualified human resources, both quantitatively and qualitatively. Those two variables will be the most important capitals to build a country so the ability to produce goods with high quality in domestic and international market can be achieved.

One of the efforts possible to be carried out can be done through education. Education should continuously be adjusted with the development of modern science and the innovations of technology so it can still be relevant and contextualized to recent development. In this context, we can observe the existing curriculum in all levels of national education and give privilege to the all regions to implement it based on the needs and condition there while also utilizing the local wisdom.

The meaning of education is effort to cultivate and develop inate physical and psychological potentials in accordance to the social and cultural values that society believes in (Mahfud, 2009: 32). Ki Hadjar Dewantara explained that the core meaning of education is the perfection of human life to fulfill all the living needs (2013: 94). Socrates in Ki Hadjar Dewantara (2013: 91) presented that the education is magnanimity. It is a process of educating, guiding, controlling, observing, influencing, and transferring knowledge done by educators to learners in order to eradicate stupidity, improve intelligence, and shape personality to give benefits for others in daily interaction (Salahudin, 2011:22). From all the above meanings of education, it can simply be formulated that education is a tool to pursue self-development which can give benefit to someone's life.

Education can be conducted by anyone, anywhere, at anytime, individually or in group. Each form of education has its own characteristics, objectives and different methods depending on where the education is conducted. Randall Collins (1977) in Mahfud (2009: 113) presented three basic types of education found in societies around the world, which is (1) practical skill education, (2) membership in group status education, and (3) bureaucratic education.

Practical skill education is designed to give skill and certain technical ability which are considered vital to do a certain task; it is conducted using master-apprentice teaching method. Membership in group status education is conducted for simbolization objective and strengthening the privilege of elite groups in the society with social stratification. Bureaucratic education itself is an education created by the government which gives emphasis on test, attendace, rank, and degree (Mahfud, 2009: 113-115). These three types of education also exist in our current society. The stakeholder conducting arts education

based on government regulation can be divided into two, form and non formal. Formal education in this context means that it has been regulated by the government as policy maker which we know further as public school and vocational school. Non-formal education can also be divided into two, institutional-based and non-institutional based. The common institutional-based education is course or arts studio while the non-institutional one is family or society (informal).

From all the types of education along with the responsible stakeholders, we can notice that the objective and learning method must be different. We have to be selective to filter which education is relevant to our life goals and which one that can lead us to be someone better.

These days, government holds major contribution for the education in Indonesia. Improvements are continuously created to meet the goals of education so we are not left behind by other countries in terms of education. This issue is also affected by the arapid development of science and technology. The goal of national education, which is to develop students' potential to be a religious individuals who are pious to God the Almighty, healthy, intelligent, skillfull, creative, independent and responsible while also democratic (UU RI No. 20 Year 2003 Chapter II).

O'neil (2008:x) explained that education is a very interesting field since it can contribute to political changes in many social movement expecting social transformation and democracy in the South World. O'neil (2008:xii), also explained that education should have critical role to strive for social changes and transformations for a more just world. For that reason, choosing paradigm and education ideology as an underlying basis is very important. An education, done in formal or informal institution should give ideology and paradigm as the ground.

One of the types of education implemented in schools is arts education. It is carried out as an effort to prepare students through teaching and learning process as well as training so students can have arts competence (Jazuli, 2008:15). Arts education is done to get aesthetic experience. Sofyan Salam (2004) further explained that the aesthetic experience here is special because it is triggered by aesthetic features. The concept of arts education is the ideology and the content that become the framework of implementing arts education in schools.

Arts education in school generally covers fine arts, music, dance, theater and handcraft. In 2013 curriculum, this subject is categorized into group B which signifies that the content of the subject is developed by central government supplemented with local wisdom developed by local government. A teacher who is responsible to teach the whole class and all subjects is also expected to teach arts to their students.

As a subject, arts education has not been considered as an important area of knowledge. Some schools still have the perspective that arts is a recreational subject for entertainment purpose. Correspondingly, the time allotment given for arts is generally less than the other subjects. Also, in many schools, the one given the responsibility to teach arts is not teacher with relevant background and qualification.

Not only schools, government as the superpower body also has the perspective that arts does not contribute to the national development. In national level, science and technology still become the first priority in curriculum and in national examination which determines graduation. As a result, science and technology are given ultimate concern which put aside other subjects somehow deemed as less important ones. In many schools, not only giving less time allotment, arts education is even eradicated. Ganta (1994:46), argued that a nation which puts aside arts from its education will create violent generation in the future since they canot differenciate good and bad nuance.

## THE POSITION OF ARTS EDUCATION IN 2013 CURRICULUM IN SENIOR HIGH SCHOOL LEVEL

Right now in Indonesia, there are two curriculums being implemented, KTSP and 2013 curriculum. The implementation is done based on the decision of regional government. In 2006 curriculum (KTSP), arts belong to the aesthetic group (based on the attachment on Mendiknas regulation No. 2 year 2006). As a domain of knowledge, arts education also belongs there. However, the question would be whether it belongs to normative aesthetic, empirical, or experience. The answer can be seen in the way the program was formulated. In the framework of the basic competence of 2006 curriculum (KTSP), the diction used is verb. It shows that the content is activities or experience. From that point, it can be


ISBN: 978-602-74576-0-7

concluded that the domain chosen in 2006 curriculum is experience, not a parts of science or technology.

From the categorization into aesthetic group, it shows that arts is seen as an aesthetic experience (modern perspective) rather than empirical aesthetic, even normative (before XVIII century) (Dickie, 1979). Arts education in 2006 curriculum as a modern aesthetic has correlation with the objectives of arts as a subject which is to develop students' attitude through asthetic experience. Not only for students who have special talent in arts but also for those who do not have any special talent in it.

In 2006 curriculum, arts is regarded as a subject under science and experience domain. As implicitly stated in the the component of 2006 currciulum framework, the basic and standard competence for junior and senior high school level, the term used in arts is appreciation and expression.

The 2013 curriculum has several characteristics, such as developing the balance between spiritual and social competence, curiosity, creativity, and teamwork along with intellectual and psychomotoric ability. The objective of the 2013 curriculum is to prepare individuals and society who are religious, productive, creative, innovative, affective and able to contribute to the society, the nation and to the whole world. Currciulum is developed by considering the social and cultural characteristics of the society while also preserving the diversity of culture (Peraturan Menteri Pendidikan dan Kebudayaan No. 70 year 2013). The appreciation of local culture should be generated first before learning the culture of other regions or other countries. The formulation of 2013 curriculum is following these notations:

1. Basic competence 1 (KI-1) for spiritual attitude;
2. Basic competence 2 (KI-2) for social attitude;
3. Basic competence 3 (KI-3) for science competence; and
4. Basic competence 4 (KI-4) for core skills competence.

In the 2013 curriculum, arts and handcraft are categorized into group B subject which contect is developed by central government and complemented by local government. A teacher should have a role as classroom teacher that own a duty to teach all courses and also expected to teach arts education to his or her students.

Substantively, arts education has very significant role for the students. The mastery of science and technology is always coincide with the spirit that possess arts values, thus the products of creation owns aesthetic values. By implementing the regional autonomy, the primary and secondary education should be worthy to prepare Indonesian people to be more competitive in order to face the developments in the era of globalization. Tourism, arts and culture which deemed capable to give contribution to the region in the form of original income area are should be supported by the skills and knowledge from its local potentials. The ideas are to make it more focus and narrow down the problem of the topic in discussing local curriculum that set aside the arts education. Therefore, arts education should get greater portion in the process of teaching and learning at school. The insertion of arts education as local content is a great breakthrough to support regional development and education. Education is inseparable political process which will be useful for certain purposes and future above all other possibilities. One of the purposes is for social justice where education is directed towards a better, more open and humane world. We also agree with Ayres and his statement that education and school is a stage race between hope and struggle.

"…hope for a better life and struggle to understand and achieve the so called as better life… At that time we realize that no teaching is flawless – (we finally understand) that such thing should be based on the cultural context, the course of history and economic conditions. Teaching should have a purpose and stance, even it is the opposite or vice versa; it should related to something more specific in the universal world (Ayres 1998: xvii – xviii) (Boyd, 2007:304)

Many of the students who attend some schools in this city join activities in the field of arts outside their school, such as: extracurricular activities, dance studio, music studio, vocal coaching, formed a band, and many more. It is clear enough for everyone to see a fact that the students assumes that the education and development in the field of arts in their school is inadequate to develop, grow, and engraft their skills in arts. Therefore, schools should give greater portion to arts education in the form of local content course because the school has authority to do it. Local government, especially Departsment of education should not giving erratic respond and then wait for another respond from their superior which happened all the time, they should provide more positive support towards this issue.

While arts education aims to make student thinking creatively, the researcher, with pride, productivity, and aesthetic perception, having desire to move forward, the possibility to see that the effort to create a modern and social society are having similar purpose. The stage of an individual to achieve values, behavior, and knowledge of society determine the process of socialization. In this process, students will put and acquired every experience in their life. The fact that children having their arts education to improve their personality and maintain themselves with aesthetic values from future lives will contribute professional and social life for them, so they will be more successful and systematic. This explains that if the children exposed to arts education, it will improves their self-esteem and the pride caused by the feeling of success and satisfaction that they got. A child is able to express himself through arts and also able to develop a feature of healthy personality, actively partsicipate in social life and be someone that helpful. This research is to inquire the personality change that helps children to develop through arts education so they will be able to adapt with their surroundings

**THE IMPLEMENTATION OF ARTS EDUCATION TEACHING IN HIGH SCHOOL ON THE 2013 CURRICULUM**

Learning is a process attempts to obtain a change in behavior as a result of learning. According to winkel (1991), learning is a set of measures designed to support the students' learning process, by calculating extreme events that contribute to the chains of intern events which occurred and experienced by students. This learning focused only for students, it is not only limited inside the classroom, but also covers all conditions and events that have an influence on the learning process. According to the laws of National Education System number 20 year 2003, learning is a process of interaction of students with educators and learning resources in a learning environment. Learning consists of objective components, materials, approaches, strategies, methods, tools, learning resources, as well as the assessment of learning outcomes (evaluation). In the Standard Process (PP Number 19 article 19 year 2005) that the learning process in the educational unit organized in an interactive, inspiring, fun, challenging, motivating students for active partsition, and provide enough space for innovation, creativity, and independence in accordance with their talents, interests and physical and psychological development of students.

According to Gagne and Berliner (1984) in Hosnan (2014:8) there are seven principles of student learning that can be used by teachers to improve learning and creativity, and can be used as a reference in the process of learning and teaching, the benefits are attention and motivation giving for students, encourage and motivate students' active involvement of students, direct involvement of students, giving repetition, giving challenge, feedback, and reinforcement and attention to individual differences of the students.

While in the process of teaching arts education in public schools in order to develop creative potential, it is necessary to consider three principles, which are:

(1) To teach arts education in the school, it is a must to give freedom to the students to cultivate their creative potential, by considering to the objectives and learning context, it will be used a variety of approaches such as, approaches to learning through the arts, learning with arts, learning about arts, approaches the free expression, and a disciplined approach.

(2) Teaching arts education in schools should help students to broaden students' interaction and communication with their environment, namely by linking learning materials with flora and fauna, cultural events, community structure, or the socio-cultural institutions.

(3) Teaching arts education in schools should be done by joyful learning, that learning arts education should be guided by a sense of fun and freedom to be creative, so it will improve the enjoyment in learning (Jazuli, 2008: 140-141).

Based on the seven principles of learning students and 3 arts learning principles, then these two principles can be used as a reference in teaching arts education in school. Thus, the form of arts education activities become very important in the learning process, even more important than the material transformation of the teaching itself. The material of arts education is contextual, plural, and depending on the cultural environment of the school, making it impossible to be equated or standardized.

Teaching and learning arts education can also be done with two approaches, which are (1) arts education can be taught as a subject or a single, stand-alone course by teaching various types and forms of


ISBN: 978-602-74576-0-7

arts, which aims to help students to establish and develop artsistic skills, sensitivity, and appreciate arts, and (2) used as a method of teaching and learning, as an artsistic and cultural approaches that are incorporated into any teaching materials in the curriculum (Rohidi,2016: 22).

Every student, especially high school students that the psychological development startsed in adolescence, where they are in the development of dependent attitude, independence, sexual interest, self-reflection, and attention to aesthetic values and moral issues, that at this stage, their behavior can also be used as a reference by a teacher in arts education teaching strategies to high school students. According to Berzonsky (Adam&Gullota, 1983:144) that propose a model of the branches that build thinking in formal operation. Formal thinking is having two special contents, namely: (1) aesthetic knowledge: that comes from the experience of playing music, reading literature or arts, (2) personal knowledge derived from interpersonal relationships and concrete experiences.

In the curriculum 2013, arts education contained in the high school level aims to develop a proper sense, develop creativity, developing aesthetic taste, develop ethics, develop social awareness, cultural awareness, and love of their own culture. It is in line with the objectives of the curriculum 2013 development. Learning outcomes should lead to 3 domains, namely affective, psychomotor and cognitive.

The learning approach suggested in the implementation of the curriculum for 2013 is the scientific approach, in which this approach is designed to encourage students' learning process to actively constructing concepts, laws or principles, through observation stages, inquire, gather information and communicate. Learning strategies that can be used are discovery learning, project based learning, and problem based learning.

Here is one example of the application of learning the arts of using a scientific approach to the level of high school in grade 11 with a sub-field of dance KI 3 Basic Competency of Applying symbols, types and aesthetic values in imitating various basic movements of traditional dance, as follows:

| **Activity** | **Learning Activity** |
|---|---|
| Observing | Student observe various types of traditional dance forms such as Malang Mask dance through books, pictures or videos |
| Asking | Students ask factual up to hypothetical questions about the kinds of basic movements of Malang mask dance |
| Collecting data | Student collecting data from various sources such as from books about mask dance, pictures, images, or mask dance videos |
| Associating | Analyzing in the form of categorizing the basic movements of mask dance, such as finger form, posture, leg positions, head movements of Malang mask dance |
| Communicating | Student delivers the conceptualization result orally or in writing, charts or any other media |

Teacher's role in teaching arts education is as a facilitator and motivator. It is not merely focused on the transmission of knowledge and skills switching and not the only learning source, it needs to be converted into mentors, coaches, teachers and trainers which means teaching students.

As an example, let's take the teaching and learning of arts education in SMU 8 Malang which using 2013 curriculum. In the 12$^{th}$ grade, the students are directed to held dance performances in accordance with the Basic Competencies 4.3 of conducting performances of dance arts work of his own creations or by group that suitable with stage system. We need to know that, not all students having the same competency in arts, which means the teacher should divide the class into three groups namely dance,

music, and fine arts group. Students are free to choose the third sub-field of the arts that corresponds to their skills and ability. The whole class is a one big group and set a theme to create dance show. The dance group will create dance movements according to the agreed theme, the music group will compose music scores in accordance to dance movements created by dance group. For the fine arts group, they will create works of arts that fit the theme and also make properties and settings for the shows.

The teaching process of arts education as exemplified and done in SMU 8 Malang, a learning process that strongly emphasizes on student's creativity. Learning the arts is expected to include three things: the creation, appreciation and expression, as outlined by Rohendi (2016: 23), as follows:

"The structure of arts education can be divided into three streams of pedagogy, namely: (1) review the results of an artsistic work, (2) the introduction and direct experience with the work (concerts, actor, books, movies) and (3) partsicipation in the work process or arts activities. It should be emphasized in this regard that there are three dimensions of the significance of the involvement of students in arts education; students gain knowledge and understanding through interaction and objects of arts, or arts show with artsist and teacher, students gain knowledge and understanding through engagement in the process of artsistic work, and the students gain knowledge and understanding through the study of arts forms, arts relationship with space and time."

To understand and apply ideas concretely, the content and structure of education which has been designed should be able to describe the properties of each type and form of arts, as well as to provide opportunities for all students to communicate and interact artsistically in the context of the social, cultural, and historical. Therefore, the themes raised by the students in creating dance are themes that embody values and character education and social issues that are happening.

## CLOSING

The position of arts education in the national education is very necessary to be considered, because the arts education also has a very important role in the development of globalization and education. Arts education is a conscious effort to prepare students through tutoring, learning, and training so that students have the ability to perform arts. Arts education is an education to get an aesthetic experience. Aesthetic experience is meant to describe a kind of special experience because of the occurrence of touch with aesthetic nuance. The implementation of learning arts education in accordance with the curriculum of 2013 is to use a scientific approach, with the learning strategies of discovery learning, problem based learning, and project based learning.

## REFERENCES

Adam Gerald& Gullota Thomas. 1983. *Adolescent life Experience*. California: Brooks/Cole publishing Company.

Arslan, Asuman Aypek. 2013. *A Study Into the Effect of Arts Education on Children at the Socialisation Process*. Artsicle Procedia Social and Behavoioral Science: ScienceDirect.

Boyd, Ross (etc). 2007. *Prospective teachers' perspectives on teaching and social justice*. International Education Journal: ScienceDirect

Dewantara, Ki Hadjar. 2013 (a).*Pendidikan (I)*. Yogyakartsa: UST-Press.

----------. 2013 (b).*Kebudayaan (II*). Yogyakartsa:UST-Press.

Hosnan, M. 2014. Pendekatan aintifik dan Kontekstual dalam Pembelajaran Abad 21. Jakartsa: Ghalia Indonesia.

Jazuli, M. 2008. *Paradigma Kontekstual Pendidikan Seni*. Surabaya: Unesa University Press.

Keesing, Roger.M. 1989. 1981. *Antropologi Budaya: Suatu Perspektif Kontemporer* (Terjemahan). Jakartsa: Erlangga.

Koentjoroningrat. 1981. *Pengantar Ilmu Antroplogi*. Jakartsa: Rineka Cipta.

Mahfud, Choir. 2009. *Pendidikan Multikultural*. Yogyakartsa: Pustaka Pelajar.


ISBN: 978-602-74576-0-7

Maksum, Ali. 2004. *Paradigma Pendidikan Universal*. Yogyakartsa: IRCiSoD.

O'neil, William. 2008. *Ideologi-Ideologi Pendidikan* (Terjemahan). Yogyakartsa: Pustaka Pelajar.

Rohidi, Tjetjep Rohendi. 2016. *Pendidikan Seni; Isu dan Paradigma*. Semarang: Cipta Prima Nusantara.

Salahudin, Anas. 2011. *Filsafat pendidikan*. Bandung: Pustaka Setia.

# OPTIMIZATION OF PRIMARY SCHOOL'S TEACHERS IN IMPLEMENTING THE THEMATIC LEARNING THROUGH DANCE MOVEMENTS

Cicilia Ika Rahayu Nita
Elementary School Education Program, FIP Kanjuruhan University Of Malang
E-mail: ikacicilia@gmail.com

**Abstract**

Learning is the process of interaction between children with children, children with learning resources and children with educators. Learning activities means if it is done in a comfortable environment and provide a sense of secure, individual and contextual learning, the experience that they learned directly.one of creative efforts in implementing teaching in primary schools is doing thematic learning especially for lower class. This teaching models will be more interesting and meaningful for the children because of this learning model presents the themes more the actual learning and contextual learning in daily life. However there are many parties who have not yet understand and able to implement this model is good way.

Thematic learning has characteristics that favor the students, as follows: thematic learning centered on students (student continuous), thematic learning can provide direct experience to students (direct experiences), the separation is not clearly, presents the concept variously in a learning process, learning outcomes in accordance with the interests and the needs of the students. Using the principles of learning and playing and fun.(Depdiknas, 2006). In accordance with the function of the art of dance in particular characteristics thematic learning share a common goal of the formation of learners both cognition, affective, and psychomotoric aspects.

Dance movements are given as the media in learning because of the meaning and the benefits against the needs of the development of the learners, which is located on the aesthetic experiences in the form of expression activities or be creative and appreciate through approaches: "learning with art", "learn through art" and "learn about art". This role can be given on education. Teachers as youngsters that have the potential to develop creativity, so that the role of the teacher in developing the dance movements as media thematic learning will have an impact on the achievement of the ideals of the quality of education in accordance with the development of education.

**Kata-kata kunci:** *guru, pembelajaran tematik, gerak tari*
*The key words: teachers, thematic learning, dance movements*

## Introduction

Learning is the process of the changes in the personality of skill, attitudes, customs and understanding which is settled in the behavior that occurs as a result of the exercise or experience. Learning is the process of interaction between children with children children with learning resources and children with educators. Learning activities means if done in a comfortable environment and provide a sense of secure, individual and contextual learning, children experience that he learned directly. The curriculum changes to one of the alternative, so that learning and teaching can be run effectively and efficiently so that the purpose of which is expected to be reached.

The curriculum changes of education in Indonesia repeatedly occur in 2004 which is famous with the Competency Based Curriculum (CBC). The changes of the curriculum happened during the year that is called by the education unit curriculum (school syllabus development). Changes in the curriculum is not a solution in the improvement of the quality of education if the implementation has not been experiencing learning in line with. The policy on regional autonomy has given freedom of movement that wide space to educational institutions in managing existing resources. The policy gives the freedom to the school if the resources are prepared to allocate all the potential and priorities which be able to perform the breakthrough of learning system which more innovative and creative.

Learners in elementary school on the first, second and third grades are located on the extensions of the early age. At the age of all aspects of the


ISBN: 978-602-74576-0-7

development of intelligence likes IQ, EQ and SQ grow and develop in an extraordinary. In general the level of development is still as one integrity (holistic approach) and able to understand the relationship between the concept of a simple way. The learning process is still dependent on the objects of the concrete and experience experienced directly.

Nowadays, the implementation of learning activities at Elementary School at first until third grade for each subjects are done separately, for example Science 2 hours, Social 2 hours and Bahasa Indonesia 2 hours lessons. In the implementation of activities conducted by the pure subject that is only learn the standard and basic competencies related to the subjects. In accordance with the stages of development of children who are still seeing all things as an integrity (holistic), learning that presents subjects separately will cause less develop children to think holistic approach and create difficulties for learners.

One of the efforts to be creative in teaching in primary schools is doing thematic learning especially at lower class. This teaching models will be more interesting and meaningful for the children because of this learning model presents the themes more actual learning and contextual learning in everyday life. However there are many parties who have not yet understand and able to implement this model in good way.

Thematic learning guide in the school syllabus development from the Depdiknas of 2006 revealed that thematic learning is an attempt to integrate the knowledge, skills value or attitude and creative thinking using the theme. According to Daryanto (2014:3), thematic learning is defined as learning that associate several subjects that can provide meaningful experience to children. Daryanto also revealed that there are some benefits of thematic learning:

(1) The students focus on a specific theme
(2) Students are able to learn the knowledge and develop basic competencies between subjects in the same theme; the understanding of the material more depth and impress; basic competencies can be developed better to relate the other subjects with personal experience students
(3) Students are able to feel the benefits and the meaning of learning because the material presented in the context of the theme clearly.
(4) Students more enthusiastic to learn because they can communicate in the real situations, to develop a capability in a subject as well as learn other subjects
(5) Teachers can save time because of the subjects presented can be prepared at the same time (daryanto, 2014:3)

Based on the statement can be asserted that the thematic learning is done with the meaning as efforts to improve the quality of education, especially to offset a surprisingly dense curriculum material. In addition to the thematic learning will provide the integrated learning opportunities that more emphasis on participation or involvement of students in learning. Integrity in this learning can be seen from the aspect of the process or the time aspects of the curriculum and aspects of the teaching and learning.

Thematic learning is very important to be scrutinized, in addition to thematic learning has many advantages, but also has a lack of especially for primary school teachers low class. These difficulties mainly occurred on the implementation of integrated learning and selection of the theme, methods, and the proper media. Therefore to realize the factors which necessary to the existence of a steady preparation from teachers who will implement thematic learning.

Teacher understanding of special school syllabus development thematic learning is good. It can be seen from the correct answer respondents of the understanding school syllabus development namely 80%. They have to understand that the school syllabus development is a set of the plan and the setting of the purpose of the content and teaching materials and the way that is used as a guide the implementation of activities to achieve the goal of learning specific education, this proves that the demands so that the teachers can control thematic learning and various other capabilities achieved already. The Capabilities include the ability to understand the concept of the plan of teaching, write the purpose of the teaching, presents the lesson materials give the question to the students, teaches the concept, communicate with students and observing the class and evaluate the results of the study (Cooper in Zahera, 1997).

In the process of thematic learning, the aspects of the students be the main attention, learning activities are no longer monopolised by the teacher (teacher center) and teachers must be able to present lessons by using many methods so that learning can take place with the


ISBN: 978-602-74576-0-7

effective and useful for the students, then the method selected must be able to develop their creativity appropriate with the development and the needs of the learners. When it is associate with the level of development of children, integrated learning is learning approach that notes and adjust the giving of the concept in accordance with the level of children development. The concept approach in accordance with the level of development of the children that went from the theory of learning that refuse to drill the system as the basis of the formation of knowledge and the intellectual structure of children (Depdikbud, Prabowo. 2000).

In addition to the thematic learning have characteristics that favor the students, as follows:

a. Centered on students. Thematic learning centered on students (student centered)
b. Thematic learning can provide direct experience to students (direct experiences).
c. The separation of the subjects are not clearly.
d. Presenting the concept of variously subjects in a learning process.
e. Learning outcomes in accordance with the interests and needs of students.
f. Using the principles of learning and playing and fun.
g. Thematic learning centered on the students (student centered).
h. Learning outcomes in accordance with the interests and needs of students.
i. Using the principles of learning and playing and fun (Depdiknas, 2006).

The dance position in Education

Education has a large role in the form of human. Hope the birth of human being who exited as a result of the education process listed in the Regulation of the Government of the Republic of Indonesia Number 19 Year 2005 on National Education Standards. That if observed from the role, the art of dance has a role in the formation of individual learners are in harmony with the needs of the development of the children in the reach multiple intelligent which consists of interpersonal intelligence, visual spatial, musical, linguistically, mathematical logic, naturalist and intelligence adversitas, creativity intelligence, spiritual intelligence, moral and emotional intelligence.

Dance movements are given as the media in learning because of the meaning and benefits against the needs of the development of the learners, which is located on the aesthetic experiences in the form of expression activities or be creative and appreciate through approaches: "learning with art", "learn through art" and "learn about art". This role can be given on education.

Dance used in learning which means to build and develop the potential for aesthetic appearance of the students. Read (1974), says that basically every person is believed to have the seed of aesthetic awareness, namely mental push which called aesthetic impulses. While a work of art can be said as an etetis object, namely a stimulus objects that can cause aesthetic response for those who see it. Art as an appreciation activities which are psychological involving stimulus response process. Through the observation of the art works will be a process to respond the aspects of art. This is where the aesthetic impulses someone which will be stimulated and believed to develop awareness and sensitivity aesthetic attitude that the estuary on the capability of respect, enjoy and assess.

The existence of dance art learning in formal education have a meaning and a very important function for learners. The meaning of learning the art of dance as revealed by Margaret H, Doubler (1970: 351) who holds as follows:

> *If dance is to fuction again as a vital experience in the lives of our people, it must be the responsibility of our educators. The inclusion on dance in the general education program is the one means of giving free oppurtunity to every child for experincing the contributions it can make to his developing personality and his growing artistic nature.*

The opinion above states that dance in the school is a tool to provide an opportunity for children to experience a contribution, from the dance in developing personal and growth the artistic sensitivity naturally. The statement needs to be realized by a teacher in formal schools, dance learning give contribution for the development of child personality.

When we analyze the dance activities that have value learning and the results which provide the benefits against students. When the jurisdiction of education include psychomotor aspect, cognition, dn affective will be achieved with good. According to Rohidi (2001:103), dance as media education at least is predicated on the purpose of fine art education there are three namely; 1) a strategy or how to foster, develop creativity and sensivity; 2) provides

opportunities in the widest sense on the students to expression; and 3) develop personal children toward the establishment of a complete and comprehensive personal, both individually, social and cultural. Some of the benefits of the art of dance as media of education according to Hidajat (2005: 13), which is as follows:

a. The introduction of the body

The art of dance as the introduction of the body is intended to give the understanding on the children to the function of the mechanism of the body (the awareness of the body). So that the students felt no stranger to the members of his body, as the feet, hand, head and the function of the bone.

b. The formation of the body

The art of dance as a media establishment of the body (forming body), which is the art of dance provides the possibility of children who can grow and develop reasonable. The children who had the habit of such as difficult to walk, roads crooked, road with the abdomen pushed to the future, is tilted or lifted up and some how certain standing will be controlled and trained simultaneously with the technical elements of dance. So that is expected to experience a reasonable growth.

c. Socialization of themselves

The art of dance as media socialization of students means that the art of dance is not good for taught individually. But, will achieve a useful result social because submitted in classical. The children can bring themselves in the association, does not feel fasilities or high heart.

d. Grow Personality

personality values produced from the dance exercise can shape the character of the students that include discipline, neatly, adaptation speed, courage act, responsibility, the depth of the immensity, preoccupation and dedication and fortitude.

e. Explore the Characteristic

Human actually have the talent duplication, namely emulate a number of character, start from other human characteristics, animals and also the attributes of the specific. The replication is a meaning that is in a statement himself, which is called as the quality of the understanding of the characteristics of a good external and internal.

f. Communication

The Art of Dance communication as communication media for children often difficult to reveal what is in his heart. He wanted to share the things he endured, he felt, he biodiversity on the other. The art of dance gives students opportunities for states with the language of physical cleanliness, namely can claim the joy, sorrow and etc.

g. The introduction of the cultural value the

The efforts which make the students are able to recognize the value of the culture is not enough to read or were given explanations (knowledge), but they possible can participate (plays an active role in the feel by phisikal and empathize with the activities of arts).

**Optimization of the teachers in the implementation of the thematic learning through dance movements**

The research found that the model of thematic learning conducted through hard work and effort that has been done by teachers in teach thematic learning although many teachers find it difficult to get a suitable media and can represent all subjects that are integrated and they too restricted to the learning media that is available or can be purchased. Sutirjo and Sri Istuti Mamik (2004) stated that the thematic learning is an attempt to integrate the knowledge, skills, value or the attitude of learning and creative thinking using the theme. Therefore all experience or the ability of the teachers in developing thematic learning and with all its aspects is an advantage that is not infinite for schools.

Thematic learning or Integrated learning is a model that combines a number of learning materials from various standard and basic competencies from one or several subjects. The implementation of this learning can be done through three approach: the determination based on the relevance of the standard and basic competencies, theme and the problems facing. The theme is given with the intention of uniting the contents of the curriculum in one unified whole, enrich the treasures of the students and learning that involves several subjects to provide meaningful experience to the students. Integrity in this learning can be seen from the aspect of the process or the time the aspects of the curriculum and aspects of teaching and learning in one time face-to-face.

In order to implement the community learning that has been poured out in the syllabus, teachers must develop implementation plan learning (RPP). RPP is a position for teachers in teaching both in the classroom and laboratory and/or field for each basic competencies. Therefore, what is stipulated in the RPP contain things that directly relate to the learning


ISBN: 978-602-74576-0-7

activities in their efforts to achieve the mastery of a basic competency.

The competency standard is the qualification ability of the learners which describing the mastery of knowledge, attitudes and skills which is expected to be reached in certain subjects. The competency standard is taken from the standard content (standard and basic competencies).

The basic competencies is a number of minimum capabilities that must be owned by the learners in order to control the decree certain subjects. The basic competencies selected from listed in the standard of the content. Prior to determine or select the basic competencies, building blocks first examine the competency standard and basic competencies subjects with attention to the following matters.

a. The order based on the concept of the hierarchy of disciplines and/or difficulty level Basic Competencies
b. Interrelationship between the standard and basic competencies in lessons
c. The relevance of the standard and basic competencies between subjects

After the preparatory stage is done, then will be presented in the implementation phase of the integrated learning. Now the implementation phase of the learning activities includes (Depdiknas 2006):

a. Opening activities

This activity was done especially to prepare the learners in physical and psychological disorder in following the learning process; give learners motivation to learn in the appropriate contextual benefits and applications lesson materials in daily life by providing examples and local comparison, national and international; asking questions that associate prior knowledge with the materials to be learned; explains the purpose of the lesson or the basic competencies will be achieved; and convey the scope of the material and the explanation of the explanation of activities according to the syllabus.

This activity is primarily create the atmosphere in the beginning of learning to encourage learners focuses themself to be able to follow the learning process in a good way. The nature of the activities in the opening of the activity to warming up. At this stage can be done by digging against the experience of the theme will be served. Some examples of activities that can be done is a story, physical or physical activity in accordance with the theme, singing, singing while dancing to follow the rhythm of the music and telling the experience. The role of dance movements in thematic learning based on the results of research especially on the level of the opening activities are very important role is as a stimulant to imagine students more easily to take an active role in learning and have new findings.

b. Main Activities

The Main activities focused on activities that aimed to development the attitude, knowledge and skills. In the context of the development of the attitude, then all oriented learning activities at this stage in the competencies that encourage learners to perform the activities through afeksi process that started from the receive, run, respect, ponder, to practice.

Competency knowledge is done through the activity of knowing, understand, implement, analyzing, evaluate, to create. For competencies skills obtained through the activities observed, ensnared, try, thinking out, entertainment, and created. All content (topics and subtopics) subjects decreased from the skills should encourage learners to perform the process of observation until the creation.

The achieve of the skills necessary to do the learning that apply research based learning mode (discovery/inquiry learning and teaching that produce a work based on the troubleshooting (project based learning).All learning activities in the core activities of activities include observing, ensnared, data collection, mengasosiasi, and communicate. On stage communicate dance movements based on the results of research also shows the role of the high enough, with dance movements students will be easier to convey than rote.

c. Closing activities

The nature of the activities of the cover is to calm down and reflect in order to evaluate. Evaluation set apart on the entire range of learning activities and the results obtained and the next together find the benefits directly or indirectly from the results of the lessons and the activities of the cover is also intended to provide feedback on the process and learning outcomes; do follow-up activities in the form of task, both individual tasks or groups; and inform the plan learning activities for the next meeting.

Some examples of the activities of the end/that can be done cover is concluded/reveals the results of the learning that has been done, moral messages, dance and dance appreciation.

**Conclusion**

Based on the results of research can be concluded that the dance movements based on their function is very important to: socialization themselves. The art of dance as media socialization of students means that the art of dance is not good for taught individual will achieve a useful result social because submitted in classical. The children can bring themselves in the association, does not feel fasilities or high heart. Grow the personality values which produced from the dance exercise which can shape the character of the students that include discipline, neat, adaptation speed, courage act, responsibility, the depth of the immensity, preoccupation and dedication and fortitude. Explore the characteristic, human actually have the talent duplication, namely emulate a number of character, start from other human characteristics, animals and also the attributes of the specific. The replication is a meaning that is in a statement himself, which is called as the quality of the understanding of the characteristics of a good external and internal. Communication, the art of dance as communication media children often difficult to reveal what is in his heart. He wanted to share the things he endured, he felt, he biodiversity on the other. The art of dance gives students opportunities for states with the language of physical cleanliness, namely can claim the joy, sorrow and so on. The introduction of the value of culture, an effort so that the students can recognize the value of the culture is not enough to read or were given explanations (knowledge), but they possible can participate (plays an active role in the feel by physical and empathize with the activities of arts).

The results of thematic learning will get good results if the teacher can develop creativity through dance movements that adjusted with the function of dance itself. In accordance with the situation and is very clear that the readiness of the teachers to use dance movements in remixing thematic learning is very determine the results of student learning.

## Reference

National Education Standards Board. 2006. Model kurikulum tingkat satuan pendidikan dan model silabus mata pelajaran SD/MI. Jakarta: BP. Cipta Jaya.

Darynto. 2014. Pembelajaran Tematik, Terpadu, Terintegrasi. Yogyakarta: Gava Media

The Directorate General of Higher Education Depenas (2008). Pembelajaran inovatif & partisipasif. Jakarta:

Directorate General of Higher Education National Education Department.

Hernawan, A. H., Novi, R. 2009. Konsep dasar dan model-model pembelajaran terpadu. Jakarta: Universitas Terbuka.

Komala Sari, 2007, Aplikasi Model Pembelajaran Tari Pendidikan Di SDN Nilem Bandung, Journal Language and Education Faculty of UPI Bandung

Hidayat Robby,2005, Wawasan Seni Tari, Pengetahuan Praktis Bagi Guru Seni Tari State University of Malang.

Lyle, M., Spencer and Signe M., Spencer. 1993. Competence at work, models for superior performance. Canada: John Willey & Sons, Inc.

Moleong, L. 1996. Penelitian Kualitatif. Bandung: PT Remaja Rosdakary

Mulyasa, E. 2005. Menjadi guru profesional menciptakan pembelajaran kreatif dan menyenangkan. Bandung: Remaja Rosda Karya.

Mulyasa, E. 2009. Kurikulum Tingkat Satuan Pendidikan. Bandung: PT Remaja Rosdakarya.

Sholichah, M. 2011. Research Result, Thesis (Sarjana)—State University of Malang 2011, http://library.um.ac.id/free-contents/index.php/pub/detail/masalah-masalah-pembelajarantematik-tema-lingkungan-di-kelas-II-SDN-Purwosari-II-Pasuruan-maratus-sholichah48350.html

Sujana, N. 1990. *Penilaian hasil proses belajar mengajar*. Bandung: PT Rosdakarya.


ISBN: 978-602-74576-0-7

Sukayati dan Wulandari, S. 2009. *Pembelajaran tematik di SD*. The Ministry of National Education

The Directorate General of the improvement of the quality and the educators. Pusat Pengembangan dan Pemberdayaan Pendidik dan Tenaga Kependidikan (PPPPTK) Matematika 2009.

Sukmadinata, S. N. 2005. *Landasan psikologi proses pendidikan*. Bandung: Remaja Rosda Karya.

Suparman, A. 2004. *Desain instruksional*. Jakarta: Penerbit Universitas Terbuka.

# THE READINESS OF PRE-SERVICE TEACHER TO BE A PROFESSIONAL MATHEMATICS TEACHER

SAIFAN SIDIQ ABDULLAH
*Yogyakarta State University*

JAILANI
*Yogyakarta State University*

**Abstract**

**The research aims to describe pre-service teacher readiness in graduate education to be a professional mathematics teacher. This readiness is measured by professional knowledges, professional skills and professional attitudes. The result shows that pre-service teacher knowledges about subject matter and pedagogy in poor category. Futhermore, pre-service teacher skills (Instructional preparation and performance) and attitudes (belief, perception and interest) in ready category.**

## 1. Introduction

Needs of professional math teacher should be loaded, because the existence of professional math teacher is key of success in math education (Widyani, 2010; Syah, 2013; Mulyasa, 2013). The one of institution who has most responsibility for preparing sufficient professional teacher is Teacher Education (Jalal, 2010). Teacher Education has important task related to the necessary of professional teacher, that is preparing professional pre-service teacher and later on will be professional teacher. (Chotimah, 2009). In preparing professional pre-service teacher, Teacher Education off course should have strategy and preparation in programme that will be held. This programme has purpose to supply pre-service teacher to be professional teacher.

In general, the standard for professional teachers in Teacher Education summarized into three domains, namely professional knowledge, professional skills and professional attitude (Guskey, 2000; Snoek, 2010; Muzaffar, Rahim, and Jessee, 2011). The three domains are standard that can be evaluated, so Teacher Education can continuously monitor and evaluate the programs relating to the standard of professional teachers. As a result, standards for pre-service teachers to be a professionals should also cover three domains.

The final goal is to produce pre-service teachers who are ready to be a professional teachers. Readiness include aspects of knowledge, skill and attitude (Jusoh, 2012). The readiness of pre-service teacher is suit with the standards of professional teachers. If the pre-service teacher have mastered the three standards of professionalism, the pre-service teacher will be ready to be a professional teachers. In addition to facilitating pre-service teacher, Teacher Education must also monitoring and evaluating their readiness continously. Therefore, Teacher Education succeeded in generating professional pre-service teacher and can fullfil the needs of professional math teacher in Indonesia.

## 2. Literature Review

This section will explain about professional math teacher and readiness of pre-service teacher.

### 2.1 Professional Math Teacher

The new professional standards for teachers describe consistent performance in terms of teachers' knowledge, understanding and professional practice (LLUK , 2007). The standards are grouped into three domains of teaching; Professional Knowledge, Professional Practice and Professional Engagement (AITSL†, 2013). Standards of professional teachers, including teachers and prospective teachers of mathematics according to Howard Green (2004) is the professional values and practice, knowledge and understanding, and teaching. Professional values and practice covering the attitudes and commitment to be a professional math teacher. Knowledge and understanding includes the qualifications of teachers to master the mathematics content and how students can understand thoroughly about the content teachers teach so that students can excel in mathematics. Teaching includes the skills to plan, monitor, evaluate, and manage classes, and all based on the attitude and professional knowledge.

Massachusetts Department of Elementary and Secondary Education or MDESE (2013) formulated standards for teachers and professional teacher

candidates as follows: the Professional Standards for Teachers define the pedagogical and other professional knowledge and skills required of all teachers. These standards are used by teacher preparation providers in preparing their candidates. Snoek (2010) outlined three elements that contribute to the professionalism of teachers as knowledge, skills, and attitudes. Attributes in knowledge consists of knowledge on the subject (mathematics content), knowledge of the teaching and learning process (including the latest with the relevant results of educational research), knowledge society and knowledge of policy and organization in the field of education. Attributes in skills consist of the ability to communicate and discuss educational issues with a wider audience, to take into account the quality of the work to the outside world, to do research in school practice, to contribute to collaborative learning community of professionals, and translate the results of educational research to innovation in the classroom/school. Attributes attitude includes a dedication to student learning, committed to the profession and the collective group of professionals, willing to contribute to the collective knowledge of the profession, commitment to the code of professional conduct and integrity/their work, willing to publish quality work to the outside world, to focus on continuing professional development, and focus on the improvement and innovation of teaching

**2.2 Pre-service Teacher Readiness**

The definiton of pre-service teacher according to Board of Study, Teaching and Education Standard or BOSTES (2013) is a students in initial teacher education programs provided by higher education institutions. Meanwhile, Fajet (2005) defined pre-service teacher is those who desire to become teachers study another 4 years in a teacher education program at a college or university. So, math pre-service teacher is a student who desire to be math teacher and take math education programme in university.

Readiness in terms of knowledge, skills, attitudes and interests play an important role in producing and creating effective teaching and learning methods (Jusoh, 2012). Profeesional knowledge consist of subject matter (Kosnik & Beck, 2009; Villegas & Reimers, 2003; Milgram, 2005; Rosas & West, 2011; Tichenor, Marcedes S. & Tichenor John, M., 2004; Niess, 2005; Muzaffar, Rahim, & Jessee, 2011) and pedagogy (Tichenor, Marcedes S. & Tichenor John, M., 2004; Kosnik & Beck, 2009; Driel & Berry, 2010; Muzaffar, Rahim, & Jessee, 2011). Professional skills consist of instructional preparation and instructional performance (Villegas & Reimers, 2003; AAMT, 2006). Professional attitudes consist of beliefs (Milgram, 2005; Bhargava & Pathy, 2011), perception (Stark, 2002; Charalambous, 2008; Bhargava & Pathy, 2011; Mergler & Spooner-Lane, 2012) and interest (Jusoh, 2012).

**3. Methodology**

It was a descriptive study using the Concurrent Embedded Strategy. This study used the quantitative method as the primary method, and qualitative method as the secondary or complementary method.

**3.1 Participant**

This subject reasearch is 8th semester pre-service teacher in four teacher educations in Semarang. Eighty four (84) pre-service teacher of math education programme were taken as the sample for the study. Eleven of them didn't respond. Hence, the participants of the study remined 73 pre-service teachers.

**3.2 Data Collection and Analyses**

The main instrument was a test and questionnaire and supported by the data obtained from the document review, observation sheets, and interview guidelines. The test was used to determine the pre-service teacher knowledge about subject matter and pedagogy. The questionnaire was used as self evaluation about lesson plan, worksheet and teaching perform, and also to determine the beliefs, perception, and interest of the pre-service teachers to be professional math teachers. The document analysis was used to assess teachers' lesson plans and worksheet. The observation and interviews were used to get supporting data which was obtained from the questionnaire.

Quantitative descriptive analysis presented in tabular format that contains the value that was converted into a scale of 0 - 100. The descriptive analysis is presented in tabular form containing the value obtained by the respondent. Student readiness is determined by the level of propensity to do categorization in the variable. Because it is necessary to determine in advance the conversion value of each sub-variables as a criterion. The level tendency is divided into five categories as shown in Table 1.


ISBN: 978-602-74576-0-7

Table 1. Criteria Rating.

| Score | Category |
|---|---|
| $X > 90$ | Very Ready |
| $75 < X \leq 90$ | Ready |
| $60 < X \leq 75$ | Fairly |
| $50 < X \leq 60$ | Poor |
| $X \leq 50$ | Very Poor |

With:
*X=(respondents score/ideal max score)×100*

Qualitative data was obtained from observation and interview. The data was analyzed by interactive model that consisting of data reduction, data display, conclusion drawing and verification (Miles & Huberman, 1994)

## 4. Results

In general, the readiness of math pre-service teacher in ready category. Math subject matter and pedagogy are in poor category. Pre-service teacher skills are in ready category. Meanwhile, their attitude in ready caategory.

Table 2. The Readiness of Math Pre-Service .Teacher

| Aspects | Score Mean | Category |
|---|---|---|
| Math subject matter | 54,41 | Poor |
| Pedagogy | 52,83 | Poor |
| Instructional preparation | 75,65 | Ready |
| Instructional perform | 89,86 | Ready |
| Beliefs | 80,98 | Ready |
| Perception | 76,84 | Ready |
| Interest | 76,99 | Ready |

Based on interviews with eight respondents obtained the information that there are some materials that are still not well understood mathematical subject matter. Some of the material are geometry, trigonometry and probability. The material also affects respondents in teaching it. Good capacity for abstract thought as the reason of repondents felt difficult to understand the material geometry. On the matter of trigonometry, respondents considered that the material is widely used rote formulas so that they find it difficult to memorize. While the probability, respondents felt that the problems in this matter is so large that requires logic skills mature.

The interview also provide information that the respondents still have less knowledge about the characteristics of students and curriculum. Respondent reasons felt difficult to understand the characteristics of the student because the student was very diverse with varied intellectual level as well. Theoretically, some respondents admitted that they have not been optimally understand the psychology of children's learning. In addition, some respondents still do not have a mature knowledge of the curriculum. Some changes in the curriculum is the reason why the respondents have not been keen to understand the curriculum

While the results of interviews about the guidelines used in developing learning tools and the implementation of learning, some students only based on lecture and books available in Teacher Educations. Many of the respondents did not understand about the content standards and process standards are actually the main guideline in development and implementation of learning tools. Some students also did not understand the regulation of education well. This is indicated by the absence of documents about various government regulations in the form of soft or hard files of the respondents.

Some problems felt by students in developing a lesson plan are the effectiveness step of learning activity and timing allocation. While all respondents recognized the constraints in implementing the learning is the ability to condition the classroom. Some respondents stated that they are equivocal for the students when the classroom atmosphere is not conducive. The other reasons related to knowledge about the characteristics of their students.

Meanwhile, from the attitude aspects, the majority of respondents already have a strong conviction to be a professional math teacher. Nonetheless, there are still some doubts on the respondents. Most of these doubts is the self-doubt of the subject matter of mathematics and teaching

experience is still lacking. Other doubts expressed by respondents was the perception of the teaching profession. One respondent stated that the teaching profession today is extremely difficult to obtain. Graduates math teacher ever year more and more is not matched with adequate employment, while being a temporary teacher thinks less promising. Then reason respondents chose mathematics education is because they like math and arithmetic like almost all respondents said that interested in becoming a math teacher. Then, when the researchers asked respondents about what advice to give to Teacher Educations, some of respondents said that need to improve the quality of lecturers. In addition, some respondents say still not equipped with knowledge about the research. However, there are respondents who stated that Teacher Educations should be able to maintain its quality.

**Appendix A**

Test

1. Given function y=2+sin x. The correct statement is...
   a. Function not intersect x-axis.
   b. Function intersect at point (-2,0).
   c. Function intersect at origin.
   d. The maximum value is 2.
2. …..

**Appendix B**

Questionnaire

1. What do you think about teacher profession in Indonesia?

**References**

AAMT, Standards for Excellence in Teaching Mathematics in Australian Schools. Available in http://www.aamt.edu.au/standards/

AITSL, National Professional Standards for Teachers, Carlton South: MCEECDYA, (2011).

Bhargava, Anupama & Pathy, Minaketan, American International Journal of Contemporary Research, 1(1), 77-81 (2011).

BOSTES, Australian Professional Standards for Teachers, Sydney: NSW, (2011)

Charalambous, C.Y, Preservice Teachers' Mathematical Knowledge for Teaching and Their Performance in Selected Teaching Practices: exploring a Complex Relationship, Disertation not published, University of Michigan, USA, (2006).

Chotimah, Peranan LPTK dalam Mewujudkan Guru yang Profesional: Suatu Tantangan dan Harapan, (2009).

Driel, J.H. & Berry, A, International Encyclopedia of Education, 7(3), 656-661(2010).

Fajet, Walter, et al, Teaching and Teacher Education, 21, 717-727 (2005).

Green, Howard, Professional standards for teachers and school leaders: a key to school improvement, New York: Rouletde Falmer, (2004).

Guskey, T. R,. Evaluating professional development, Thousand Oaks, CA: Corwin Press, (2000).

Jalal, F., et al, Teacher Certification in Indonesia: A Strategy for Teacher Quality Improvement. Jakarta: Depdiknas, (2009).

Jusoh, R, International Interdisciplinary Journal of Education , 1, 7, 98-102 (2012).

vKosnik, Clare & Beck, Clive, Priorities in Teacher Education: The 7 Key Elements of Pre-Service Preparation, New York: Routledge, (2009).

LLUK, New Overarching Professional Standards for Teachers, Tutors, and Trainers in The Lifelong Learning Sector: Aplication of The Professional Standards for Teachers of Mathematics (Numeracy). UK : Skills for Business, (2007).

Mergler, Amanda G., & Spooner-Lane, Rebecca., Australian Journal of Teacher Education, 37(8), 66-81 (2012).

Milgram, R. James, The Mathematics Pre-Service Teachers Need to Know, California:


ISBN: 978-602-74576-0-7

Department of Mathematics, Stanford University, (2005).

Mulyasa, E., Standar Kompetensi dan Sertifikat Guru, Bandung: ROSDA, (2013).

Muzaffar, I., Rahim, H., & Jessee, C. Designing Effective Pre-Service Teacher Education Pragrams. Washington, DC: USAID, (2011).

Niess, M.L., Teaching and Teacher Education, 21, 509-523 (2005).

Snoek. Theories on and concept of professionalism of a teachers and their consequences for curriculum in teacher education, avalaible in http://www.hbokennisbank.nl/en/page/ hborecord.view/?uploadId=amsterdam%3Aoai%3Ahva.nl%3A440607

Syah, Muhibbin, Psikologi Pendidikan: dengan Pendekatan Baru (Edisi Revisi). Bandung: PT Remaja Rosdakarya, (2013).

Tichenor, Marcedes S. & Tichenor John., The Professional Educator, 27(1), 89-95(2004).

Villegas-Reimers, E., Teacher Professional Development: An International of The Literature. Paris: International Institute for Educational Planning, (2003).

Widyani M. Hapsariputri, Evaluating Teacher' Quality Improvement Policy in Indonesia (to meet the UNESCO-EFA criteria). Thesis not published, Delft University of Technology, (2010).

# FEASIBILITY AND EFFECTIVENESS OF CONTINUING PROFESSIONAL DEVELOPMENT OF VOCATIONAL HIGH SCHOOL TEACHERS USING E-LEARNING PORTAL BASED INTERACTIVE MULTIMEDIA

SOEHARTO
Electrical Engineering Education Department, Engineering Faculty of Yogyakarta State University
Karangmalang, Yogyakarta, Indonesia.

SUKIR
Electrical Engineering Education Department, Engineering Faculty of Yogyakarta State University
Karangmalang, Yogyakarta, Indonesia.

ARIADIE CHANDRA NUGRAHA
Electrical Engineering Education Department, Engineering Faculty of Yogyakarta State University
Karangmalang, Yogyakarta, Indonesia.

Abstract

This study aims to generate continuing professional development of Vocational High School Teachers of Electrical Power Skills Program using e-learning portal based interactive multimedia that has a good feasibility and effectiveness. The study was research and development involving several steps: needs assessment, planning, manufacture, black box testing, validation, revision, application, and finishing. Data collection was gained by testing, assignment, and observation, using item test, assignment sheets, and observation sheets. Data were analyzed descriptively. Findings of the study showed that the continuing professional development of Vocational High School teachers of Electrical Power Skills Program have been developed, using e-learning-portal based interactive multimedia, with web address in www.CPDguru.com; which has: (1) good feasibility, as indicated by the good results of black box testing and validation by materials experts, media experts and teachers were classified as good with an average score of 3.14; and (2) good effectiveness, as indicated by average of pre-test and post-test teacher's score were 48.8 and 74.93, in addition the average score of classroom action research proposal and Scientific Articles Journal was 71.6.

*Keywords: continuing professional development, interactive multimedia, e-learning portal*

## 1. Introduction

Act No. 14 of 2005 on teachers and lecturers, is the policy of direct intervention in order to improve the quality of teacher competence through the obligation policy that teachers must have a professional certificate. Zamroni proposed that the Act on teachers and lecturers is a political decree that teachers are professional workers, who are entitled to rights as well as professional liability, e.g.[1]. Hence, the teachers are expected to be able to devote totally to their profession and to live worthy from that profession. In order to establish that a teacher has met the professional standard, then the teacher must pass a competency test through the teacher certification program, so the teacher would get a teaching certificate and professional teacher predicate and professional allowance in the amount of monthly basic salary.

Professional teachers are marked by the acquisition of teaching certificates, should have the competency and good performance, which is in accordance with the standard. But in fact shows that not all of the teaching certificate holder having the competency and good performance. Studies conducted by PGRI of the impact of teaching professional certification on teacher performance showed that the performance of teachers who have pass the certification test have not been satisfied.

There were still quite a lot of teachers, including the Vocational High School (VHS) teachers, who after passing the certification program, were not trying to improve their competence and tend to perform like before


ISBN: 978-602-74576-0-7

getting a teaching certificate. The same thing was stated by President Susilo Bambang Yudhoyono, on the Commemoration of National Teacher Day and 66th PGRI Birthday on 30 November 2011 in Sentul, that the president was still receiving input from community members, most of those teachers who have passed the certification program and have received teaching professional allowance, it turns out that their performance have not been satisfied and have not changed much. Teachers who have obtained teaching certificate but have not yet demonstrated a good competence and performance, one of the reasons was the teachers did not want to develop their professionality. Teachers who are not making an effort to develop their professionality, could be assured that their competencies and performance mastery tend to decrease with the time elapsed.

As a logical consequence for teachers as professional workers , therefore the teachers must constantly improve their professionality. The activity of teachers professionality development should be continuous, incessant, and there would not be any point of professional capability reaching the final peak. Here is the essence that teachers must undergo a process of continuing professional development (CPD). CPD for teachers has been manifested in a legal umbrella namely MENPAN Regulations and Bureucracy Reforms No. 16 of 2009 on Teaching Professionality Functional and credit point that would be implemented starting in 2013. In Chapter V, Article 11, paragraph c, from that regulation it was mentioned that in broad outline the CPD for teachers covers included three main elements, namely: self-development, scientific publications, and innovative works

Based on preliminary studies in the form of field observations and interviews with some teachers of Sedayu 1 State VHS of Bantul, Pengasih 2 State VHS of Kulon Progo, showed that so far the model of professional development for VHS teachers were still partial, it has not shown its sustainability, and it has not displayed its optimization. This matter was demonstrated, among others: (1) functional training for VHS teachers was organized by the Agency for education and training (edutrain/diklat) in the Ministry of Education and Culture such as P3GT and VEDC, were very limited and could not reach all the teachers because of the limiting funds, education and training institution, instructors, and facilities and infrastructure ; (2) functional training for VHS teachers were not continuous, but were discontinuous with material that sometimes less relevant with the teachers expertise of who attended the training; (3) there are still quite a lot of vocational teachers were reluctant to attend the functional training if they had to pay with their own money ; (4) there was rarely VHS teachers who undertook a classroom action research, lesson study, presented scientific papers at scientific forums, writing articles in scientific journals, invention of an effective technology, art works, and labwork device manufacturing, whereas those activities have been so highly required as a condition for rank raising from class III / b to III / c, so there was a concern that many teachers who would stuck his rank in class IIIb.

To overcome the above problems, it is necessary to conduct a research on CPD for teachers, especially VHS teachers used E-learning Portal based interactive multimedia, so it could be expected that professional teachers would always be materialized. This study aims to generate CPD of VHS Teachers of Electrical Power Skills Program using e-learning portal based interactive multimedia that has a good feasibility and effectiveness. CPD was first introduced by Richard Gardner in mid 1970. CPD is an effort made for improving professional knowledge and skills continuously beyond the initial basic training required in carrying out the work. In the field of teaching, that development is an in-service training. In its development, CPD responsibility shifted from the school organizers and teachers into individual. The meaning of which was that the individual is currently responsible for the development of his professional career, e.g. [2]. Another opinion was given by the IFL in Peter Scales, at al. which stated that the continuing professional development of teachers is an effort to maintain, improve and expand their knowledge and skills relevant to the expertise of teachers that have a positive impact on the practice and the learning experience, e.g. [3].

Furthermore Stenhouse in Peter Scales, et al., stated that the outstanding characteristic of continuing professional development is the existence of an


ISBN: 978-602-74576-0-7

autonomous professional capacity for teachers to develop themselves through self-learning system, internships, research on the classroom action and so on, e.g. [3]. Based on the above opinions can be said that the continuing professional development was an activity done by teachers for maintaining, improving and renewing the teachers competency continuosly to improve the quality of teachers' work on the assignment.

Rose and Reynolds stated that CPD can be classified into three types, namely: (1). Direct teaching, such as courses, training, and workshops; (2) learning in school, such as peer coaching, colleague criticism, mentoring, classroom action research, and teaching team; and (3) Learning outside the classroom, such as network utilization cooperation, visits to other schools, inter-school activities, and so forth, e.g. [4]. As with the Kennedy which divided the nine models of CPD, among others: (1) training model; (2) bearing award model; (3) defecit model; (4) stairs model; (5) standard-based model; (6) coaching / mentoring model ; (7) joint-practice model; (8) research model on classroom action; and (9) transformative model, e.g. [5].

On the Regulation of the Minister of State for Administrative Reform and Bureaucratic Reform No. 16 of 2009, Chapter V, Article 11, paragraph c shows that continuing professional development is primarily based on three activities, namely self-development, scientific publications, and innovative work. The components are contained in self-development activities, namely: (1) education and functional training; and (2) the collective activities of teachers for improving their competency or professionality. Scientific publication activity component includes the following: (1) scientific publication of research products or innovative ideas in the field of formal education; and (2) the publication of textbooks, enrichment books and teachers' manuals. At inovative work activities consists of several components, namely: (1) finding the effective technology; (2) finding or creating the art works; (3) making or modifying kit lessons, or visual-aid lessons or labwork-equipments; and (4) follow the development of the preparation, guidelines, questions and the like.

Research conducted by the Offer and Pedder concerning benefits, status and effectiveness of CPD among others concluded: (1) Teachers who were doing professional development through seminars and workshops that are not clearly focus was less benefits; (2) CPD has a greater benefit mainly through learning such as courses or training; (3) Benefits for teachers in participating in CPD include the ability to collaborate with colleagues and gain new information, but the benefit level differ significantly between teachers, e.g.[6].

In contrast to Pedder Opfer research, research on teachers' perceptions of the score of CPD in South Africa conducted by Lessing and Witt shows the results include: (1) according to teachers opinion, workshop activities provide an added value for teachers because through the workshop can help enhancing their knowledge, increasing their motivation to work, increasing their working efficiency and motivating a better teaching habits; and (2) through the workshops the teachers could update their knowledge and provide an inspiration in advancing teaching at schools, e.g. [7]. It seems that this study gave different results from Opfer and Pedder research above. This might be due to the two studies were conducted in very different countries, this study was conducted in Southern Africa which is including in developing countries, while the above study was conducted in England which is including in developed countries.

Research conducted by Ono and Ferreira on a CPD case study by means of lesson study in South Africa showed that teachers who were engaged in lesson study in Mpumalanga could increase their knowledge and skills in teaching, e.g. [8]. But those teachers were not sure about the ease of lesson study implementation throughout South Africa. Another study conducted by Seezink and Poell on the CPD need for vocational education teachers at competency-based school, a case study in the Netherlands showed that teachers as an individual learns to improve his/her knowledge would have the creativity or new ideas in teaching, especially in the competency-based education, e.g. [9].

Along with the technology development in the computer field, recently has been available various software that can display text, sound, graphics, video and integrated and synergy animation, so that case was called multimedia. According Mussama, et al., multimedia term came from multi which means more than one and the meaning of that media is means of communication, so


ISBN: 978-602-74576-0-7

that multimedia is defined as a means of communication using a lot of media include sound, images, animation, digital video and text, e.g. [10]. There would be many possibilities for the application of interactive multimedia for learning, namely: (1) Classroom learning, if the place and time to learn is the same, (2) Synchronous learning, if time is the same but the learning place is different, (3) E-learning if the time is different, but learning place is the same , (4) WEB-base learning, if learning was done at any place and any time. As the way for measuring the successful of learning through the interactive multimedia model are: (1) Reaction and action plan of the presented material, (2) Changes in knowledge, affective and psychomotoric (3) The amount of material used in the real world, (4 ) economically accountable, (5) Production costs should not beyond the limits.

E-learning is short for electronic learning. One common definition of e-learning is: delivery of learning materials through an electronic media such as the internet, intranet / extranet, satellite broadcast, audio / video tape, interactive TV, CDROM, and computer-based training (CBT). The ILRT of Bristol University defines e-learning as the use of electronic technology to send, support, and improve teaching, learning and assessment. In addition, e-learning term covers a wide range of applications and processes such as computer-based learning, web-based learning, virtual classroom, and so forth; while the on-line learning is part of the technology-based learning resource that utilizes the Internet, intranet, and extranet resources.

## 2. Research methods

This type of research used in this research is the research and development, which is in general have some steps namely: need assesment, design, manufacture, testing and validation, revision , implementation, and finishing.The way of collecting data used in this study were tests, assignments, and observation. Tests performed include: (1) black-box testing, to test the functioning of the system, and (2) pre-test, post-test and assignments for teachers in the implementation of the CPD model-based using e-learning portal based interactive multimedia. The assignment given to the teachers to make a journal article or research proposal of classroom action which is consulted online to the experts. Observations made by media experts, material experts, and teachers for CPD model by using e-learning portal based interactive multimedia.

Instruments used at the black box testing was checklist functional system, while at the pre-test and post-test in the implementation of CPD model using problems set test. Instrument used to assess the tasks created by teachers in the form of sheets of assessment tasks. Instruments used in the validation activities by material experts, media experts, and teacher was validation sheet. Prior to be used those instruments should be measured their validity and reliability. Data analysis technique used was descriptive.

## 3. Results and Discussion

### 3.1. Research Results

Through research steps include:need assesment, design, manufacture, testing and validation, and revision, so it has been obtained the CPD for VHS teachers by using e-learning portal based interactive multimedia which has a web address at www.pkbguru.com. In testing step, the activities carried out was black box testing on the results of CPD for VHS teachers using e-learning portal based interactive multimedia, the results are as shown in Table 1.

At the validation step, the activities were done by 2 media experts, 2 material experts and 2 teachers on the product of continuing professional development of VHS teachers using e-learning portal based interactive multimedia with the results shown in Table 2.

The next research step was implementation or trial-test of CPD products of VHS teachers using an e-learning portal based interactive multimedia in the field. In this activity the CPD material was limited to the class action research material and scientific articles writing. The amount of teachers involved in this activity was 15 people who came from VHS Electrical Power Installation Engineering Skills Program in Yogyakarta Special Region. Trial activities was begun with an explanation of the model implementation of CPD of teachers using e-learning portal based interactive multimedia on 6 September 2014 in the Data Communication Laboratory, Electrical Engineering Education Department of Engineering Faculty of Yogyakarta State University. Before commencing the activities of implementing CPD teachers models using


ISBN: 978-602-74576-0-7

e-learning portal based interactive multimedia, the pre-test was firstly carried out.

Furthermore, the trial test activities on implementation of CPD of teachers using e-learning portal based interactive multimedia was on-line conducted until 10 October 2014. This activity consisted of independent study conducted by teachers and tutorial in classroom action research proposal writing or online scientific journals articles writing via www.pkbguru.com.

The teachers studied classroom action research material and scientific journal article writing published in www.pkbguru.com independently. If there were difficulties experienced by those teachers in learning that material could be delivered to the discussion forum facilities which would be responded by an expert or another teacher participants. In addition these problems could also be submitted through the tutorial facilities of "japri = personal network" which would be specifically responded by the expert.

In the activities of CPD teacher model trial-test, the teachers were also asked to make a research proposal of classroom action research (CAR) or scientific journal articles, which would be given a recomendation or an online tutorial by the expert. The results of classroom action research proposal made or scientific journal articles were then uploaded by the teachers through the "japri = personal network" facilities that existed at www.pkbguru.com.

Then the expert gave a recomendation on CAR proposal writing or scientific journal articles had been made by teachers through the "japri = personal network/persnet" facilities in the web address. The teachers then revised CAR proposal writing work or scientific journal articles in accordance with the recomendation given by the expert. The Revision results of CAR proposal writing or scientific journal articles done by teachers and then re-uploaded through the "japri=personal network/persnet" facilities in the web address. Thus PTK proposal writing or online journal articles tutorial were proceeded continuesly up to the expert gave a good score at the end for the works of

Table 1. Results of black box testing on the results of CPD of VHS teacher used e-learning portal based interactive multimedia

| No | Name of Case Testing | Indicator | Testing results |
|---|---|---|---|
| 1 | Download free downloaded materials | Teacher could download free downloaded materials without registering as the member in www.pkbguru.com. | Success |
| 2 | Registe membe | | |
| 3 | Downlc membe | | |
| 4 | Accoun | | |
| 5 | Registe | | |
| 6 | Enter C | | |
| 7 | Start Ne | | |
| 8 | Writing | | |
| 9 | Accoun | (login) prior to enter the system | |

Table 2. Validation results conducted by media experts, matterial experts, and teachers to the CPD products of VHS teachers using an e-learning portal-based interactive multimedia

| No. | Validator | Aspects | Achievement average | |
|---|---|---|---|---|
| | | | Score | % |
| 1. | Media experts | Display | 3,4 | 85 |
| | | Easily usage | 3,22 | 80,5 |
| | | Material presentation | 3,1 | 77,5 |
| | | Advantage | 2,75 | 68,8 |
| 2. | Material experts | Material relevancy | 3,35 | 83,8 |
| | | Technical | 3,25 | 81,3 |
| 3. | Teachers | Display | 2,9 | 72,5 |
| | | Easily usage | 2,83 | 70,8 |
| | | Material presentation | 3 | 75 |
| | | Advantage | 3,2 | 80 |
| | | Material relevancy | 2,86 | 71,5 |
| Overall average | | | 3,13 | 78,15 |


ISBN: 978-602-74576-0-7

classroom action research proposals or scientific journal articles.

Furthermore, the closing ceremony was held on October 11, 2014 in which the evaluation of trial test activities on the implementation of teacher's CPD conducted in the Data Communication Laboratory, Electrical Engineering Education Department of Engineering Faculty of Yogyakarta State University. At the trial test evaluation activities on those CPD teachers model implementation, the teachers were asked to do the Post-test. Pre-test and post-test scores achieved by teachers in the trial test on implementation of CPD of VHS teachers using e-learning portal based interactive multimedia was presented in Table 3.

Table 3. Pre-test and post-test scores achieved by the teachers in the trial-test on implementation of CPD teacher using e-learning portal

| No | Participant Number | Pre test Score | Category | Post test Score | Category |
|---|---|---|---|---|---|
| 1 | 01/UC/2014 | 60 | Adequate | 80 | Very Good |
| 2 | 02/UC/2014 | 48 | Inadequate | 76 | Good |
| 3 | 03/UC/2014 | 52 | Inadequate | 72 | Good |
| 4 | 04/UC/2014 | 36 | Poor | 64 | Adequate |
| 5 | 05/UC/2014 | 60 | Adequate | 84 | Very Good |
| 6 | 06/UC/2014 | 68 | Good | 92 | Excellent |
| 7 | 07/UC/2014 | 56 | Adequate | 76 | Good |
| 8 | 08/UC/2014 | 48 | Inadequate | 72 | Good |
| 9 | 09/UC/2014 | 48 | Inadequate | 76 | Good |
| 10 | 10/UC/2014 | 48 | Inadequate | 72 | Good |
| 11 | 11/UC/2014 | 40 | Poor | 76 | Good |
| 12 | 12/UC/2014 | 44 | Poor | 68 | Good |
| 13 | 13/UC/2014 | 40 | Poor | 72 | Good |
| 14 | 14/UC/2014 | 48 | Inadequate | 76 | Good |
| 15 | 15/UC-MMIBPE/2014 | 36 | Poor | 68 | Good |
| Average score | | 48,8 | Inadequate | 74,93 | Good |

In the trial test on implementation of teacher's continuing professional development using e-learning portal based interactive multimedia, another activities among of which was tutorial to the teachers in writing of classroom action research proposal or online scientific journal articles via "japri=personal network/persnet" on www.pkbguru.com facility. The work of teachers in the form of classroom action research proposal writing or scientific journal articles was given recomendation by the expert, then was revised by the teacher, furthermore it was given a further recomendation by the expert and it was revised further by the teachers, as such online continously till that work was gained a good score. As for the score achieved by the teachers in the assignment of CAR proposal writing or scientific journal articles with an online tutor "japri=personal network/persnet" facility on www.pkbguru.com as shown in Table 4.

Table 4. Scores achieved by teachers in the assignment of writing CAR proposal or scientific journal articles with online tutor.

| No | Participants Number | Working Type | Scores | Categories |
|---|---|---|---|---|
| 1 | 01/UC/2014 | CAR Proposal | 75 | Good |
| 2 | 02/UC/2014 | CAR Proposal | 73 | Good |
| 3 | 03/UC/2014 | R&D Proposal | 71 | Good |
| 4 | 04/UC/2014 | CAR Proposal | 70 | Good |
| 5 | 05/UC/2014 | CAR Proposal | 76 | Good |
| 6 | 06/UC/2014 | Article journal | 74 | Good |
| 7 | 07/UC/2014 | Article journal | 72 | Good |
| 8 | 08/UC/2014 | CAR Proposal | 70 | Good |
| 9 | 09/UC/2014 | CAR Proposal | 73 | Good |
| 10 | 10/UC/2014 | CAR Proposal | 70 | Good |
| 11 | 11/UC/2014 | CAR Proposal | 70 | Good |
| 12 | 12/UC/2014 | CAR Proposal | 70 | Good |
| 13 | 13/UC/2014 | CAR Proposal | 70 | Good |
| 14 | 14/UC/2014 | CAR Proposal | 72 | Good |
| 15 | 15/UC/2014 | CAR Proposal | 68 | Good |


ISBN: 978-602-74576-0-7

| | | |
|---|---|---|
| Average score | 71,6 | Good |

**3.2. Discussion.**

Research carried out by the steps include: need assesment, design, manufacture, testing and validation, and revision, has been obtained the results of CPD of VHS teachers of Electrical Power Instalalation Enginering Skills Program using e-learning portal based interactive multimedia, which has a web address at www .pkbguru.com.

The material contained in this CPD teacher model was limited to the classroom action research material and scientific papers writing. Those materials presented with some various display supported by flash program so it was capable of being displayed by the effects of motion pictures and writings, as well as accompanied by sound effects. The materials were available in two types, namely for a guest user and the member user.

Guest user could only download a freely downloaded material while the member user has privelege namely he/she could download the materials that could not be downloaded by the guest user. In order to become a member, the teachers could register via the registration. If the teacher has been successfully registered to be a member, then the teacher must firstly login by filling in your username and password. After the teacher has been successfully login, so the teacher got a few options such as user profiles features, teachers forum, and he/she could download the materials that require the prerequisite member as the user. Through the teachers forum so the member could discuss with the same teachers or could interact with the manager. Those functions as described above were obviously able to function properly.

The CPD of VHS teachers using e-learning portal based interactive multimedia, further testing were carried out by two kinds of testing namely black box testing and validation by media expert, material expert, and teacher. In the black box testing has been carried out every block functioning test from the whole CPD model system using e-learning portal based interactive multimedia. Black box testing results as presented in Table 1 shows that each block and the whole system was properly function. This means that every part of CPD model system of VHS teacher using e-learning portal based interactive multimedia could work synergistically so that the whole system could work well.

In the validation activities carried out by media experts on the results of the CPD of VHS teacher using e-learning portal based interactive multimedia, has been obtained an average score at the display aspect of 3.4 , at the easily usage aspect of 3.22, the material presentation aspects of 3, 1, and the advantage aspect of 2.75. If the average score of those four aspects was calculated the score obtained was3.12, which was included in a good category.

In the validation activities carried out by material experts on the results of the CPD of VHS teacher using e-learning portal based interactive multimedia, has been obtained an average score at the material relevancy aspect of 3.35 , at technical aspect of 3.25. If the average score of those two aspects was calculated the score obtained was 3.3, which was included in a very good category.

In the validation activities carried out by teachers on the results of CPD of VHS teachers using e-learning portal based interactive multimedia, it has been obtained an average score at the display aspects was 2.9 , at the easily usage aspect was 2.83 , at the material presentation aspect was 3, the advantage aspect was 3.2 and the material relevancy aspect was 2.86. If the average score of those five aspects were calculated the score obtained was 2.99, which is in a good category. In addition if the average score achieved in the validation conducted by media experts, material experts and teachers as a whole to be averaged , the overall average score obtained was 3.14 which is in a good category.

Based on the black box testing results on the CPD of VHS teachers using e-learning portal-based interactive multimedia, it showed that each block and the whole system were obviously found to work functionally proper. Besides that matter the average score obtained from the overall validation of media experts, mateial experts and teachers, was 3,14 which is in a good category. Thus, it shows that the CPD of VHS teachers using e-learning portal-based interactive multimedia has the feasibility of good usage.


ISBN: 978-602-74576-0-7

Results of pre-test taken by the teachers before attending the trial test model implementation of CPD teachers using e-learning portal based interactive multimedia were presented in Table 3. The pretest results as shown in Table 3 above showed that: (1) the highest category was achieved by a good teacher, with the number of teachers was 1 (6.67%); (2) the pretty good score category were 3 people (20%); (3) the inadequate score category were achieved by 6 people (40%); and (4) the poor score category was obtained by 5 people (33.33%). In the average, the pre-test score achieved by teachers was 48.8, this score is in the inadequate category. Thus, it shows that the majority of teachers (73.33%) were lack or have not yet mastered the competency of classroom action research and scientific articles writing. Nevertheless, it is reasonable because the teachers have not begun learning the competency of classroom action research and scientific articles writing through CPD models using MMIB e-learning portal.

At the end of the trial test activities in implementing CPD teachers model using e-learning portal using e-learning portal based interactive multimedia, teachers were asked to take a post-test, the results were also shown in Table 3. Results of the post-test of the trial test activities in implementing CPD teachers model using e-learning portal MMIB as shown in Table 3 above, show that: (1) excellent score categories were achieved by 3 people (20%); (2) good score categories were achieved by 11 people (73.33%); and (3) Adequate score category was achieved by one person (6.67%). In the average , the post-test score achieved by the teachers was 74.93, this score was in a good category. The meaning of which that in the average, teacher has been properly mastering the competency of classroom action research and scientific articles writing. If the average teachers pre-test score of 48.8 was compared with the average teachers post-test score of 74.93, it appears that the average post-test score increased by 53.94% from the pre-test score. The meaning of which was that before attending the trial-test activities in implementing CPD teachers model using e-learning portal MMIB, the teachers have not been mastering the competency of classroom action research and scientific articles writing, but after attending those activities, they turned to well master the competency of classroom action research and scientific articles writing.

That matter was also supported by data that CAR proposal or scientific journal articles writings are done by the teachers and guided online by the tutor via "japri=personal network" on www.pkbguru.com. in the average their score achieved was 71.6 with the good classified score as shown in Table 4. Based on the average teachers post-test score achieved in the trial -test activities in implementing CPD teachers using e-learning portal using e-learning portal based interactive multimedia of 74.93, which was in a good categories, and the average score of the teachers work in the form of writing CAR proposal or scientific journal articles guided online was 71.6, which is quite good, this matter proved that CPD teachers models used e-learning portal MMIB has a good effectiveness.

## 4. Conclusion and Sugestion

### 4.1. Conclusion

**4.1.1.** Continuing professional development of VHS teachers using e-learning portal based interactive multimedia has a good feasibility level of implementation, this is indicated by the results of blac box testing that showed the entire system functions properly, and the average score overall validation of media expert, material experts and teachers of 3.14 which is in good category.

**4.1.2.** Continuing professional development of VHS teachers using e-learning portal based interactive multimedia, has a good effectiveness level of implementation, this was indicated by the average teacher post-test score achieved was 74.93 which is in a good category and the average value of the teachers work in the form of PTK proposal writing or scientific journal articles guided online of 71.6 which is in a good category.

### 4.2. Sugestion

In relation to the achievement of continuing professional development of VHS teachers of Electricalpower Expertise Program using e-learning portal based interactive multimedia that has a good feasibility level of implementation, and has a good effectiveness level of implementation, therefore to the teachers, especially VHS teachers with the competency of Electrical Power Utilization Installation Engineering Skills, and VHS teachers in general or other teachers, in order to immediately benefitted it by registering themselves as


ISBN: 978-602-74576-0-7

members, so they can login and can get a chance to develop CPD for themself.

**References**


1. Zamroni. *Sertifikasi Profesi Akan Meningkatkan Mutu Guru*. Yogyakarta: Universitas Negeri Yogyakarta. (2006).
2. Gray, S.L. *An Enquiry Into Continuing Professional Development for Teachers*. Esmee Fairbairn: London. (2005).
3. Peter Scales, at. al. *Continuing Professional Developmentin The Lifelong Learning Sector*. New York: The McGraw-Hill Companies. (2011).
4. Rose, J. & Reynolds, D. *Teachers' Continuing Professional Develompment: A New Approach*. Annual World ICSEI: London. (2010).
5. Kennedy, A. Models of Continuing Professional Development: A framework for Analysis. *Journal of In-Service Education*, 31 (2), 235-250. (2005).
6. Opfer, D. & Pedder, DBenefits, status and effectiveness of Continuous Professional Development for teachers in England. *The Curriculum Journal Faculty of Education, University of Cambridge, Cambridge, UK*, 01 Desember 2010, 428. . (2010).
7. Lessing, A. & Witt, M.d. The value of continuous professional development:teachers' perceptions. *South African Journal of Education* Vol 27, 53-67. (2007).
8. Ono, Y. & Ferreira, J. A case study of continuing teacher professional development through lesson study in South Africa. *South African Journal of Education*, vol 30, No. 1., 12. (2010).
9. Seezink, A., Poell, R.F. Continuing professional development needs of teachers in schools for competence-based vocational education: A case study from The Netherlands. *Journal of European Industrial Training*, Vol. 34 Iss: 5, pp.455 – 474. (2010).
10. Mussama, I.M. et.al. dkk. Pengembangan Media Pembelajaran Interaktif Berbasis Multimedia Pada Mata Kuliah Dasar Listrik. *Jurnal Pendidikan Teknologi dan Kejuruan FT UNY*, Volume 16, Nomor 1, (2007).



ISBN: 978-602-74576-0-7

# The Development of the Curriculum of Art and Culture Education in the Study Program of Elementary School Teacher Education

**ZULFI HENDRI**
*Faculty of Languages and Arts, Yogyakarta State University*

**ABSTRACT**

Art and Culture Education in schools contains many things as mandated by the Indonesian Government Regulation No. 19 of the year of 2005 about National Standards of Education. Besides, the issue of uniqueness, meaningfulness, and usefulness of the needs of learners' development, variations in the scope of learning is also very much. In addition, the level of knowledge of children with different levels of education curriculum requires a different concept. To take a look at the existing fact, presumably, there is the issue of the curriculum of Art and Culture Education in the Study Program of the Elementary School Teacher Education (PGSD).

## A. Background

In the middle of modern and global life, being filled with a variety of demands due to the complexity and plurality existing in the social order, it is the time for education in Indonesia to put fine arts, including art education as a part of education which is not different from other fields of knowledge. As stated that way, it is because the arts offer a variety of functions. As mentioned by Rohidi (2000), in the perspective of education, arts can serve as a tool or medium to provide a balance between intelectuality and sensibility, rationality and irrationality, and minds and emotional sensitivity. Furthermore, Rohidi said that education using the arts as a medium can be used to improve the creativity of learners; because it has imaginative characteristics functioned to stimulate those who involved in it to combine the feelings that exist within the existing reality (Rohidi, 2000). Similarly, the National Standards of Education stated that the art education in schools with a variety of uniqueness and its significance can be beneficial to the needs of the development of learners (PP No.19: 2005).Through art education, the aspects of the development of learners can be increased, because through art education, children can freely express and explore to reinforce what is already known and to discover new things and to be able to develop all potential optimally, both the potential of physical, emotional and spiritual.

However, the reality of implementation in schools, including in elementary schools, art education is still seen as unimportant subjects and tends to be complementary. As mentioned in Syafii's study (1998), the reality of fine art education of the elementary school in Central Java which was based on the responses of teachers, it was in poor condition. Art education, said teachers, did not meet or has not met the expected functions yet. Fine art education in schools is simply as "display" curriculum, as subjects of a "formality", pastime, and relieving for tired teachers. Most of the curriculum was not implemented. In addition, there were still so many issues of the implementation of arts education at the primary level in Indonesia such as (1) the existing teachers were lack of ability. As said by Suyuti (2009) the learning process of the arts (including fine arts) in school could not be carried out optimally as the educators in both formal and non-formal schools have not armed, controlled, or skilled to teach the arts yet; (2) limited availability of time; and (3) and art subjects included visual arts, music, dance, and theatre arts.

Among many issues, the problem of the inability of teachers to teach the art well must be an important domain to note. As what have known, most of the teachers teaching the arts in elementary school is a Classroom Teacher, due in accordance with the Basic Education Data (Dapodik), teachers who are recognized at the primary level is a Classroom Teacher, Religion Teacher and Teacher of Physical Education and Health (see Dapodik, 2012). Thus, art learning and other arts were taught by the classroom teacher. Classroom teachers only have professional competence which have been defined, namely: to master the material, structure, concept and mind set of competency standard science of the five subjects of elementary school (SD) or Islamic elementary school (MI) is Indonesian Language, Mathematics, Social Studies, Science, and Civics, but the art and culture subject does not belong to it (Government Regulation, 2005).

Problems of art education in schools did not solely lie in the teacher's factor. If it was disentangled, these problems could be found from upstream to downstream. It was also from the macro to micro domain of education. Thus, it was unwise if the problems were addressed only to the educational personnels' factor. Due to the teacher who is now a educator at a number of schools is a product of breeding and management system of the teachers lasted for long time ago. In the system of construction and management of teachers conducted by the Institution for Education of Educational Personnels (LPTK), a variety of the policy of teacher's competence development has been formulated in the curriculum and learning resources for educational personnels. In this case, when the competence of teachers was questionable, it was worth to expect related to the weakness which will return to the curriculum and learning management conducted by LPTK, as well as the teacher's management policies held by the government.

Therefore, a thorough evaluation of the educational curriculum of educational personnels becomes a necessity. From the evaluation, it will lead to the efforts in building a model of curriculum development of educational personnels which gives more meaning to the improvement of the ability or competence of teachers as professional educational personnels. The implementation of evaluation and the procedures of the development of the educational curriculum of educational personnels require prerequisite activities which include; review of legislation on teachers and teacher education to understand government policy on teachers, critical review activities of the curriculum of educational personnel being applied in a number of LPTK, identification of the model of development of a model of the educational curriculum of educational personnels and the procedures of the development of the educational curriculum of educational personnels.

**B. Education for Prospective Teachers of Arts**

Basically, education for prospective teachers *(Teacher Education)* at LPTK must prepare graduates to be able to face global developments and challenges in the world of education. Along with the development of many challenges to be faced by educators, as mentioned in UNESCO's report (1996) that there are at least seven challenges that may be faced by teachers in the future. Those seven tensions are:

1. The tension between 'global' and 'local', i.e. on one hand people will become citizens of a global world, but in another hand they do not want to lose their local cultural roots;
2. The tension between 'universal' and 'individual';
3. The tension between traditionalism and modernity;
4. The tension between the consideration of long-term and short-term;
5. The tension between the need to compete and concern for the balance of opportunities;
6. The tension between the pace of expansion of science, technology and arts (IPTEKS); and
7. The tension between the spiritual and the material. Consequently, a shift in the pattern of global life that is characterized by the development of: 1) from the local community to the world ones; 2) from social cohesion to democratic participation; 3) from economic growth to the development of human resources.

Based on the above description, the development of the curriculum of educational personnels becomes an important part of the improvement of the whole quality of education. Curriculum development is currently to lead to the process of authentic teacher learning (authentic teacher learning), because the curriculum will be the key of educational reform (Ann Lieberman, *et. al*., 2008). Prospective teachers should have the skills and attitudes that refer to the *keys performance indicators* (KPI) and *keys value indicators* (KVI). As noted by Hammond, *et. al.* (2005), it includes; 1) the knowledge of students and how they learn and develop within social contexts (knowledge of learners and how they learn and develop within social contexts), 2) the conception of materials and objectives of the curriculum; understanding of the materials and skills to be taught in the light of social goals of the educational process (conception of curriculum content and goals; an understanding of the subject matter and skills to be taught in light of the social purpose of education), 3) understand the teaching environment supported by the social environment of school (an understanding of


ISBN: 978-602-74576-0-7

teaching in light and supported by classroom environment). Moreover, Hammond *et. al.* (2005) also added that the teacher education needs to be placed in critical (important) to coherence in standards (standard coherent), clarity about curriculum (obvious curriculum), and commitment to act based on knowledge about what appears to be effective (a commitment to act based on an understanding of effectiveness).Meanwhile, in terms of teacher development, Berliner divided the level of teachers' expertise into 5 levels: novice, advanced beginner, competent, proficient and expert. On the other hand, Lee Schulman (2008; 21) has organized the domains of knowledge which are important for teachers into the following categories:

1. *Content knowledge* (knowledge of the contents), or knowledge of certain subjects to be taught, for example Mathematics, English, History.
2. *Pedagogical content knowledge* (knowledge of pedagogical content); that is, a special mix between content and pedagogy that uniquely becomes an area of teachers' authority; a special form of their own professional understanding.
3. *Knowledge of learner* (knowledge of students) and their characteristics.
4. *General pedagogical knowledge* (knowledge of pedagogy in general), with special references about the principles and strategies of management and organization of the class which seems to go beyond the subject being taught.
5. *Knowledge of educational contexts* (knowledge of the educational context) which is related to group works, organizing and funding of school districts, until the character of the community and culture in its environment.
6. *Curriculum knowledge* (knowledge of curriculum), knowledge of materials and programs will serve as capital for teachers.
7. *Knowledge of educational ends, purpose and values* (related to the target, purpose and values of education) and the basic of philosophy and history.

In addition to the above view, there are still so many other challenges in art education which need to be considered in the development of competence of prospective art teacher, namely the nature and form of art education itself. Art education (fine arts, dance, music, art and drama / theatre) has a multilingual nature, multidimensional and multicultural. Multilingual means to develop self-ability to express creatively in various ways and media such as visual language, sound, motion, and a variety of roles in between. Multidimensional means the development of the diverse of competencies including conception (knowledge, understanding, analysis, and evaluation), appreciation and creations by blending harmoniously aesthetics, logic, kinaesthetics, and ethics. Multicultural characteristics contain the art education to develop the awareness and the ability of appreciation towards the diverse domestic and foreign culture (Depdiknas, 2007).

**C. Development of Art Education Curriculum in LPTK**

To develop the management of teachers facing challenges in the future, it is worth if LPTK refers to a new concept of development of teacher education. In this case, the *Education Department of Eastern Mennonite University* (2008-2009) has issued what they called the *Teacher Education Handbook; Reflective Caring Teachers Preparing For a Changing World*. In the handbook, the vision and mission were described as well as new strategies to provide education for teachers facing the challenge of the world which is changing rapidly. In this case, there were six major issues related to the characteristics and professional identity of teachers to be prepared, namely; scholarship (expertise), inquiry (critical analytical), professional knowledge (mastery of professional knowledge), communication (communication skills), caring (caring attitudes), and leadership (leadership). Those six variables becoming the main educational issues have each complete indicator that can be seen below:

1. Scholarship: to acquire knowledge through the liberal arts, Global Village General Education Curriculum and specialty area studies and to organize and integrate that knowledge across disciplines and cultures: a) demonstrate competency in general education knowledge and liberal arts. b) articulate major concepts, assumptions, debates, and methodologies of inquiry that are central to the discipline(s)/he teachesc) demonstrate awareness and apply

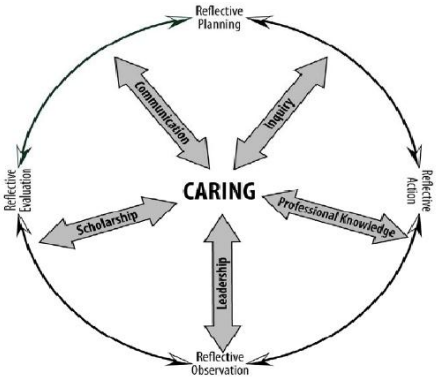

ISBN: 978-602-74576-0-7

meaningful connections across disciplinesand cultures.

2. Inquiry: to generate questions and to use critical thinking to self-assess, to viewproblems collaboratively and from multiple perspectives, and to make informed,research-based decisions to enhance student learning; a) evaluate philosophies of education from multiple perspectives to articulate apersonal philosophy that enhances student learning; b) use inquiry-based strategies to enable students to construct knowledgec (analyze social contexts for reflection, problem-solving, and learning throughdialogued) draw upon personal and collegial reflections to evaluate and revise practice.
3. Professional Knowledge: to demonstrate pedagogical and professionalknowledge in order to create, manage, and assess diverse environmentsconducive to learning setting high expectations; a) plan appropriate instruction and assessment based on the knowledge of constructivist learning theory, subject matter, student development,instructional strategies, the learning context, and curriculum; b) integrate informal and formal assessments into instruction, maintain records,and analyze data to inform teaching decisions and to monitor student progress) adapt and/or create a variety of instruction to provide equitable opportunitiesfor all learners including those from diverse cultural backgrounds and withexceptionalitiesd) understand how educational legal and policy issues affect students‟,guardians‟, and teachers‟ roles and responsibilitiese) develop and design technologically mediated learning environments that aredevelopmentally and task appropriatef) identify, locate, evaluate, and use appropriate instructional hardware andsoftware to support specialty professional associations standards.
4. Communication: to acquire and use knowledge of effective verbal, nonverbal,and technological communication strategies to support student learning, to solveproblems, and to create peaceable climates; a) demonstrate effective reading, writing, speaking, listening, and observationskills to enhance student learning, b) communicates appropriately with parents or guardians of students and school personnel, c) use electronic technologies to access, manage and exchange information for sound problem solving and decision making.
5. Caring: to develop a nurturing spirit that honours diversity, advocates for students, integrates faith and ethics, and promotes peace building in diversesettings plan and advocate for safe and just learning experiences for allstudents;a) evaluate the effects of his or her actions on students, colleagues, andsupervisorsb) promote social harmony and peace building in learning communitiesc) model caring by treating students fairly and respectfully, promoting studentfeelings of self-worth, and creating a climate that allows access toappropriate learning opportunities for all studentsd) value stewardship of self, community, ideas, and environmental resources byintegrating faith and ethics with professional responsibility.
6. Leadership: demonstrate high aspirations for themselves and their professionand to influence positive change in educational settings; a) view teaching as a vocation (conceptual framework), b) demonstrate resourcefulness and responsibility in educational settingsinfluencing positive change, c) build professional relationships with colleaguesd) participate in opportunities for professional growth. Salah satu yang baru secara konseptual baru dari enam variabel di atas dalam ranah keguruan adalah apa yang disebut dengan caring (sikap peduli). Caring seperti dikemukakan di atas diartikan sebagai " to develop a nurturing spirit that honours diversity, advocates for students, integrates faith and ethics, and promotes peace building in diverse settings plan and advocate for safe and just learning experiences for all students", that is an attitude to always develop the spirit of care and service, respect for differences, encourage students to unite together as a whole belief and ethics, support the


ISBN: 978-602-74576-0-7

peaceful atmosphere in a variety of situations, plan and support the comfort of all students in gaining a learning experience. In the perspective of caring teachers (caring teachers), reflective process becomes an integral part of the professional duties of a teacher. Reflective process was carried out continuously in the planning process of teaching (reflective planning), in the process of teaching acts (reflective action), in the learning process of observation (reflective observation) and in the evaluation process of learning (reflective evaluation).In the reflective process conducted continuously, caring teacher will always increase five variables into their identity and professional characteristics namely; quality of communication, quality of inquiry, the quality of scholarship, quality of leadership and quality of professional knowledge as a teacher on a particular subject. The relationship between the reflective process and the increase of variable of education in the perspective of caring teacher (caring teachers) can be seen in the following models**:**




The teacher education program developed by Eastern Mennonite University (EMU) theoretically refers to the theory of constructivism led to deliver a commitment of authentic caring (commitment to authentic caring), so it can carry out the task with awareness, caution and activeness to conduct reflection. To evaluate and examine the ability of teachers, there are ten standard variables that should be controlled by the teacher. The ten standards were developed by a consortium of supporting new teachers and assessors of interstate or Interstate New Teacher Assessment and Support Consortium (INTASC).In the context of teacher development companies, specifically, if the development of teachers is through LPTK, these ten standards should be a major concern. The ten standard questions are: 1) Subject Matter. The teacher understands the central concepts, tools of inquiry,and structures of the discipline(s) he or she teaches and can create learningexperiences that make these aspects of subject matter meaningful for students. 2) Student Learning. The teacher understands how children and youth learn anddevelop, and can provide learning opportunities that support their intellectual,social and personal development. 3) Diverse Learners. The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adaptedto learners from diverse cultural backgrounds and with exceptionalities. 4) Instructional Strategies. The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking,problem solving, and performance skills. 5) Learning Environment. The teacher uses an understanding of individual andgroup motivation and behavior to create a learning environment that encouragespositive social interaction, active engagement in learning, and self-motivation. 6) Communication. The teacher uses knowledge of effective verbal, nonverbal, andmedia communication techniques to foster active inquiry, collaboration, andsupportive interaction in the classroom. 7) Planning Instruction The teacher plans and manages instruction based uponknowledge of subject matter, students, the community, and curriculum goals. 8) Assessment. The teacher understands and uses formal and informalassessment strategies to evaluate and ensure the continuous intellectual, social,and physical development of the learner. 9) Reflection and Professional Development. The teacher is a reflective practitioner who continually evaluates the effects of her/his choices and actions on others(students, parents, and other professionals in the learning community) and whoactively seeks out opportunities to grow professionally. 10) Collaboration, Ethics, and Relationships. The teacher communicates andinteracts with parents/guardians, families, school colleagues, and the communityto support students' learning and wellbeing (Hammond, dkk. 2005).


ISBN: 978-602-74576-0-7

**D. Cover**

Professional development of teachers should be refocused on the establishment of learning community (learning communities).Teachers should be a part of learning communities in the network of schools. The school networks will help teachers to make the practitioner knowledge (from the experiences of teachers), public knowledge (from research and theory), and new knowledge (of what is jointly made and agreed).The process of curriculum development in educational personnel, especially those based on the authentic situation (authentic filed based pedagogy) can refer first to what is called *a framework for teacher learning.* In addition, Indonesian insight as well as social and cultural elements inside it should also be an integral part of the foundation of the curriculum.

**References**


BSNP. (2006). *Kurikulum Tingkat Satuan Pendidikan*. Jakarta: BSNP-DEPDIKNAS.

Chapman, Laura H. (1978). *Approach to Art in Education.* New York: Harcourt Brace Jovanovich.

Departemen Pendidikan dan Kebudayaan. (1998). *Development and Learning of Students*. Jakarta: Depdikbud.

Dikti, Depdiknas. (2010). *Bahan Sosialisasi Program Pendidikan Profesi Guru*. Yogyakarta: UNY.

Education Department of Eastern Mennonite University (2008-2009), *Teacher Education Handbook; Reflective Caring Teachers Preparing for a Changing World*, www.emu.edu/education/tehandbook08.pdf .

Gay, L.R. (1991). *Educational Evaluation and Measurement: Com-petencies for Analysis and Application (Second Edition)*. New York: Macmillan Publishing Company.

Hammond, Linda Darling and John Bransford (editors). (2005). *Preparing Teachers For A Changing World; What Teachers Should Learn and Be Able To Do*. The National Academy of Education.

Peraturan Menteri Pendidikan Nasional No. 22 of the year of 2006 on the Content Standards for Primary and Secondary Education Unit.

_____ No. 24 of 2007 on the Implementation of Permendiknas No. 22 and 23 of 2007.

Patricia Cranton and Ellen Carusetta. (2004). "*Developing Authenticity as a Transformative Process*", Journal of Transformative Education, Vol. 2 No. 4, (online service), Published by SAGE. USA.

Read, Herbert. (1970). *Education through Art.* London: Faber & Faber.

Rohidi, Tjetjep R.. (2000). *Kesenian dalam Pendekatan Kebudayaan*. Bandung: STISI.

Sudjana, Nana. (1989). *Dasar-dasar Proses Belajar Mengajar*. Bandung: Sinar Baru.

Syafii. (1993). *Enkulturasi Nilai Estetik: Proses Pendidikan Seni Rupa SD di Kotamadia Semarang.* Laporan Penelitian Pulit IKIP Semarang.

Undang-Undang RI No 20 Tahun 2003 tentang Sistem Pendidikan Nasional.

Undang-Undang RI Nomor 14 Tahun 2005. Guru dan Dosen. Bandung: Fokusmedia.

Yuxin Ma, Guolin Lai, Doug William, Louise Prejean, Mary Jane Ford. (2008). "*Exploring the Effectiveness of a Field Experience IA Pedagogical Laboratory; The Experience of Teacher Candidate*," in Journal of Technology and Teacher Education, Vol.16



ISBN: 978-602-74576-0-7

Numebr 4 (online service)
Published by Sage USA.

http://arttangara.multiply.com/journal/item/5/EVALUASI_SENI_RUPA_ANAK_2

http://navelmangelep.wordpress.com/2012/04/01/penelitian-pengembangan-development-research/2/7/2013

LPPMP Yogyakarta State University
ISBN: 978-602-74576-0-7

ISBN 978-602-74576-0-7


Lembaga Pengembangan dan Penjaminan Mutu Pendidikan
Universitas Negeri Yogyakarta