PROCEEDING
International Conference on Vocational Education and Training
(ICVET) 2012

60 Years
Indonesia-Germany
From Friendship to Partnership

6 Windu
21 Mei 1964 - 21 Mei 2012

*Strengthening the Partnership
between Vocational Education and Training and Industry*

Yogyakarta State University, INDONESIA
28 June 2012

Deutsche Botschaft
Jakarta

Kedutaan Besar Jerman
Jakarta

RISTEK

TECHNISCHE
UNIVERSITÄT
DRESDEN

VICTORIA
UNIVERSITY
MELBOURNE AUSTRALIA

R C P

gíz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

Proceeding

International Conference on Vocational Education and Training (ICVET) 2012

FOREWORD

This proceeding compiles all papers from the invited speakers and complementary papers in International Conference on Vocational Education and Training (ICVET) 2012. The conference is organized by Yogyakarta State University in collaboration with the German Embassy in Jakarta and the Indonesian Embassy in Berlin on 28 June 2012. It is conducted as a part of event series held to celebrate 60 Years Indonesia-Germany Partnership.

The main theme of this conference is "Strengthening the Partnership between Vocational Education and Training and Industry". Three sub themes are covered in this conference: 1) Management; 2) Learning Process; and 3) Program and Collaboration.

I should apologize for the discontentment and inconvenience concerning both the conference and proceeding. I hope this proceeding will give deeper insights about vocational education and training.

Yogyakarta, 28 June 2012

Editor

TABLE OF CONTENTS

VIDEO RECORDING OF TEACHING MICROTEACHING ELEMENT :
An Experimental Study To Improve The Teaching Skills Of Vocational Teacher Candidates

Apri Nuryanto

Faculty of Engineering Yogyakarta State University
aprie_man@yahoo.com

Abstract

The paper is organized as an effort to improve the teaching skills of prospective teachers for vocational students. Teacher as a professional educator has primary responsibility to educate, teach, train, assess, and evaluate students. Teacher as a professional position should be prepared through education and should be supervised by an experienced supervisor. It is not easy to form a professional teacher, one way is through microteaching. Microteaching taught in small scale and one goal is to provide early experience in the practice of teaching. This paper was developed from initial research that emphasizes how the role of students and lecturers in using the video footage that is in use online through social media. Comments and suggestions from each participant are provided online through social media. Analysis is performed to see the influence of video recording and comments from my friends as a reflection of the individual prospective teachers to make improvements in each of the practice of teaching. In addition, how the use of new technologies in communication such as social media to support the vocational teacher candidates.

Keywords: video recording, microteaching, vocational teacher candidates, social media

1. Introduction

The objectives of the national education system is to develop skills and form the character and civilization of the nation's prestige, developing the potential of learners in order to be a human who is faithful and devoted to God Almighty, noble character, knowledgeable, healthy, creative, independent, and become citizens whose democratic accountable [1]. Teachers have a strategic role in education, other educational resources are often less of means if not supported by qualified teachers. The teacher is spearheading the effort to improve quality services and outcomes of education and teacher is the key element to improve the quality of education.

The teacher as a professional educators has the primary duties to educate, teach, guide, direct, train, assess, and evaluate students. Teachers as professional positions should be prepared through education and should be supervise by the experienced supervisor. Any plan to prepare teachers should include some teaching under the direction of an experienced practitioner. Both students and professors have judged the student teaching to be, without qualification, the best way to train teachers [2].

Higher Education is the system which provides teacher candidates plays an important role to prepare graduates readiness in teaching, training, guiding and evaluating. A sequence of elements to meet the standards for the award of Qualified Teacher Status includes: 1) Professional value and practice, 2) Knowledge and understanding, 3) Teaching and class management (discipline and relationships), 4) Teaching and class management (teaching techniques), 5) Teaching and class management (teaching and learning styles), 6) Planning, expectations and targets, 7) Monitoring and assessment [3]. Micro-teaching became one how to realize a quality of teacher candidates.

Micro-teaching is a scaled-down teaching encounter which has been develop as Stanford University to serve 3 pusposes: (1) as preliminary experience and practice in teaching, (2) as a research vehicle to explore training effect under controlled conditions, and (3) as an in-service training instrument for experienced teachers. In micro-teaching the trainees are exposed to variables in classroom teaching without being overwhelmed by the complexity of the situation. They are required to teach brief lessons (5 to 25 minutes) in the their teaching subject, to a small group of pupils (up to 5). These brief lessons allows opportunity for intense supervisopn, video-tape recording for immediate feedback, and the collection and utilization of student feedback [4].

Micro-teaching is a technique that can be used for various types of different professional development. Especially, it has become a successful and an interesting method for transferring theory into practice for a preserve teacher in a teacher education program. The purpose of microteaching application is to develop skills in teaching [5]. A microteaching session is a chance to adopt new teaching and learning

strategies and, through assuming the student role, to get an insight into students' needs and expectations. It is a good time to learn from others and enrich one's own repertoire of teaching methods. A microteaching session is much more comfortable than real classroom situations, because it eliminates pressure resulting from the length of the lecture, the scope and content of the matter to be conveyed, and the need to face large numbers of students, some of whom may be inattentive or even hostile. Another advantage of microteaching is that it provides skilled supervisors who can give support, lead the session in a proper direction and share some insights from the pedagogic sciences.

In micro teaching, teacher candidates find opportunities to develop skills in drawing learners' attention, asking questions, using and managing time effectively and bringing the lesson to a conclusion. Also, through micro teaching, the teachers' class management skills improve. They acquire the skills to choose appropriate learner activities, use teaching goals, and overcome difficulties encountered during the process. During learner learning, on the other hand, teacher candidates improve their skills in giving feedback and measurement and evaluation. Furthermore, by observing the presentation of their friends they find a chance to observe and evaluate different teaching strategies [6].

Micro teaching helps develop skills to prepare lesson plans, choose teaching goals, speak in front of a group, and to ask questions and use evaluation techniques. Teachers' self confidence grows in a comfortable environment. It provides an opportunity to learn multiple skills that are important for teaching in a short time. It is a useful experience to learn how to realize teaching goals through planning a model lesson. It shows how preparation, organization, and presentation are important in learners' learning. Choosing activities, putting them in a logical order, maintaining improvement make it possible to become a whole with the content. Receiving immediate feedback is a means to determine productivity and using teaching strategies. By asking appropriate questions a strong learning environment can be established. Also, it allows for asking questions at various difficulty levels. Also, it makes it possible to create an environment that involves thinking differently and interaction [7].

Video case studies are commonly used in teacher training programs, usually to develop one specific area of competence. The need for an integrative model that meets diverse learning objectives and competences led to a study on how to effectively use videos to guide student-teachers towards professional development. The analysis of case studies helped develop a four-pronged holistic proposal that places student-teachers in the role of both teacher and learner allowing the co-

construction of teaching knowledge and the acquisition of digital competences and media literacy (8). The results suggest that having pre-service teachers develop and analyze video cases can improve motivation, learning, empathy, and the construction of professional identity [9].

Use of the video was optional, and about half of the class reported using the video, though usage was 90.0% for off-campus students. Most on-campus students accessed the video on-line, while all off-campus students accessed the video via CD-ROM. Off-campus students rated the educational value of the video higher than on-campus students, and were more likely to indicate that the video helped them understand the issues being studied. Most students were able to view the videos without any technical playback problems [10]. Results based on the scores in the pre- and posttests showed that Learner-Centered Micro Teaching (LCMT) model had a progress in teacher candidates' teaching behaviors on subject area, planning, teaching process, classroom management, communication, and evaluation [11]. The use of video-enabled, web based computer-mediated communication (CMC) for the provision of feedback to pre-service, trainee teachers who were involved in a Teaching Practicum course within a teacher-education program. Pre-service teachers' micro-teaching and field-teaching performances were videotaped and made available for viewing within the CMC system [12].

The observations in the classroom showed that the students have many difficulty in practice of teaching in the classroom. This difficulty is the impact of the micro-teaching practices. The micro-teaching indeed not fully working as well that make students weakness in many things, such: not ready to teach, less ability to attract the attention of students, low motivation, less ability to provide references, and others. Students seems uncomfortable and doubtful in teaching. Students needs an examples of teaching and how to teach. Video can provide a real examples of teaching in the classroom. It means video of teaching will assist students to have an examples of teaching.

2. Discussion

2.1 Teaching

Teaching may be even more complex than law, medicine, or engineering. Rather than serving one client at a time, teachers work with groups of twentyfive to thirty at once, each with unique needs and proclivities. Teachers must balance these variables, along with a multitude of sometimes competing goals, and negotiate the demands of the content matter along with individual and group needs. They must draw on many kinds of knowledge – of learning and development, social contexts and culture, language and expression,

curriculum and teaching – and integrate what they know to create engaging tasks and solve learning problems for a range of students who learn differently [2].

Teaching is simply helping other persons to learn. The teacher plans the learner's experiences so that they will lead as quickly and directly as possible to mastery of desired skill and knowledge. By this means, the amount of random "trial and error" effort by the learner is reduced to minimum. The teacher, then, guides the learner through these planned experiences in such a way that one who is learning makes steady progress in perfecting the skills or understanding the ideas which are being taught [13].

'The profession of teaching is becoming more and more complex. The demands placed on teachers are increasing. The environments in which they work are more and more challenging' [14]. Teaching is a complex, multifaceted activity, often requiring us as instructors to juggle multiple tasks and goals simultaneously and flexibly. The following small but powerful set of principles can make teaching both more effective and more efficient, by helping us create the conditions that support student learning and minimize the need for revising materials, content, and policies. The Teaching for Understanding framework is a guide that can help keep the focus of educational practice on developing student understanding. [15]. Successful teaching is a composite of skills, competencies, artistry and much more besides. Some is learned by experience; some by preparation and reflection [3]. The good teaching was defined as 'getting most students to use the level of cognitive processes needed to achieve the intended outcomes that the more academic students use spontaneously'. Traditional teaching methods – lecture, tutorial, and private study – do not in themselves require students to use these high-level cognitive processes [16].

The main value of an understanding of pupil learning in the context of effective teaching is that it enables a teacher to reflect upon an explicit agenda of the major processes and issues involved in such learning. In the framework developed here, the notions of 'attentiveness', 'receptiveness' and 'appropriateness' acted as the focus for thinking about pupil learning. Teachers' thinking about their own teaching comprises much craft knowledge based on experience. The continued development of the quality of teaching stems from teachers thinking critically about their teaching [17].

Ramsden's course experience questionnaire measures five subscales: **good teaching** (providing useful and timely feedback, clear explanations, making the course interesting and understanding students); **clear goals and standards** (clear aims, objectives and expectations regarding standard of work); **appropriate assessment** (extent to which assessment measures thinking and understanding rather than factual recall); **appropriate workload** (the extent to which workloads interfere with student learning); and **generic skills** (extent to which studies have supported the development of generic skills) [18].

The sequence in Figure 1 draws on the experience of tutoring many student teachers before the first whisper of 'standards' was heard. This box addresses from very early on the questions that are usually uppermost in many student teachers'.

2.2 Micro-teaching

Micro-teaching is a scaled-down teaching encounter which has been develop as Stanford University to serve 3 pusposes: (1) as preliminary experience and practice in teaching, (2) as a research vehicle to explore training effect under controlled conditions, and (3) as an in-service training instrument for experienced teachers. In micro-teaching the trainees are exposed to variables in classroom teaching without being overwhelmed by the complexity of the situation. They are required to teach brief lessons (5 to 25 minutes) in the their teaching subject, to a small group of pupils (up to 5). These brief lessons allows opportunity for intense supervisopn, video-tape recording for immediate feedback, and the collection and utilization of student feedback [4].

| Profesional value and practice: | E.g. how to have high yet realistic expectations; taking account of pupils' backgrounds; treating learners with respect and consistency; being a model of good learning; effective communication with all stakeholders; contributing to the corporate life of schools; learning from a range of parties; self-evaluation. |

| Knowledge and understanding: | E.g. knowledge of the subject they are to teach; understanding of the National Curriculum that they are to teach: its aims and values, contents and Programmes of Study, general teaching requirements, teaching arrangements in their key stages, understanding of how learning takes place and the factors that affect it, use of ICT in teaching and learning, understanding the Special Educational Needs Code of Practice; understanding of a range of strategies for promoting positive behaviour. |

| Teaching and class management (discipline and relationships) | E.g. being proactive, vigilance, transitions, routines and rules, controlling movement, setting realistic and manageable tasks, acting reasonably and fairly, use of praise and encouragement, being clear in demands and expectations, promoting a positive environment, communicating, timing, developing motivation in children, maintaining tolerance and a sense of humour. |

| Teaching and class management (teaching techniques) | E.g. introducing, explaining, questioning, summarising, use of voice, dividing attention, listening, eliciting, demonstration, giving feedback, class, group and individual teaching, timing, beginning, continuing, finishing, transitions. |

| Teaching and class management (teaching and learning styles) | E.g. use of whole-class, group, individual work, formal, informal, didactic, experiential, gain insights into how children are learning and what affects this. |

| Planning, expectations and targets | E.g. subjects, topics, cross-curricular skills, matching, ifferentiation, breadth, balance, continuity, progression, sequence, timing, subject knowledge, objectives, coverage of Attainment Targets and Programmes of Study, analysis of task demands and task, drawing up schemes of work and lesson plans, communicating purposes to children, providing for children with special educational needs, creativity and imagination. |

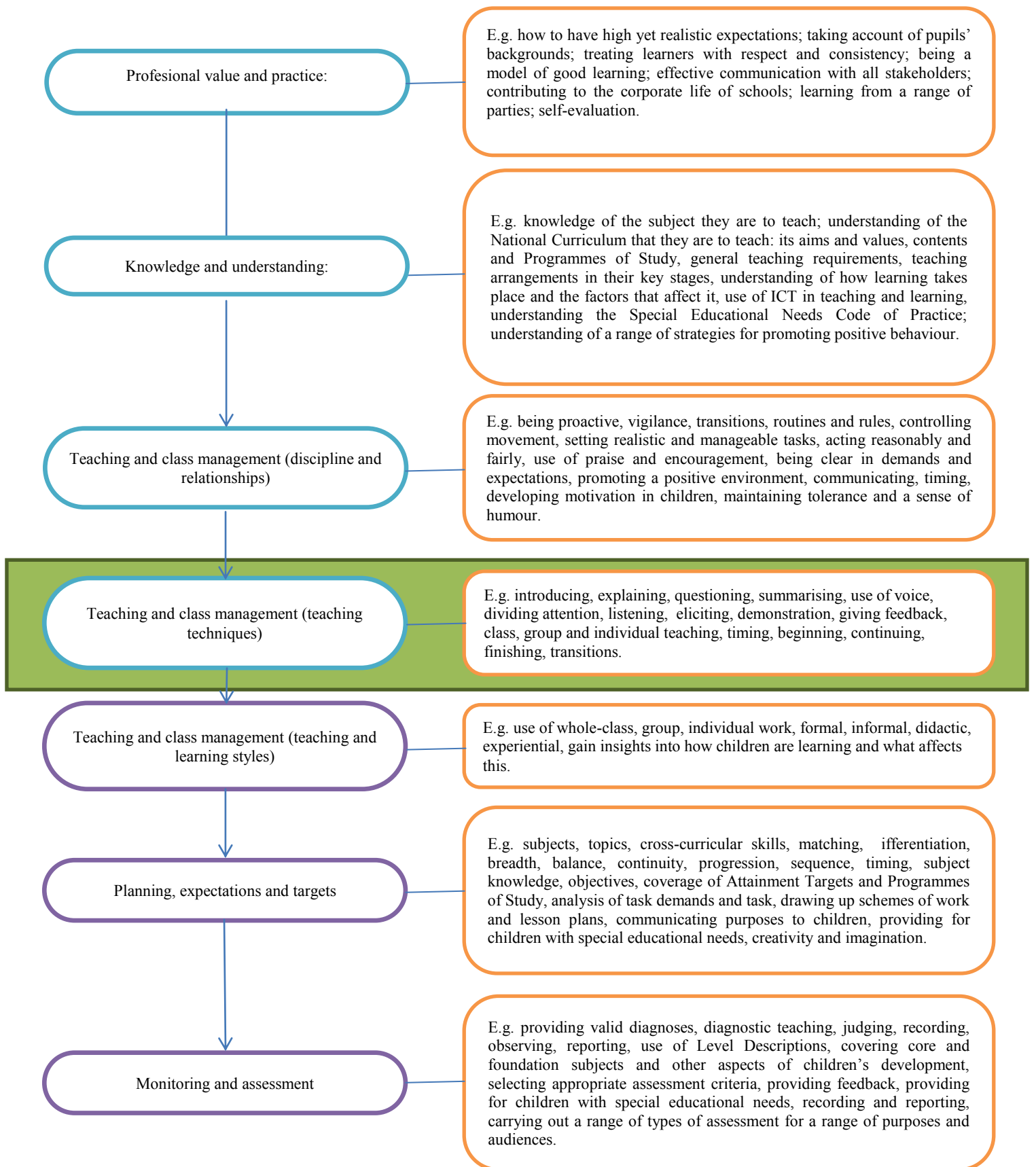| Monitoring and assessment | E.g. providing valid diagnoses, diagnostic teaching, judging, recording, observing, reporting, use of Level Descriptions, covering core and foundation subjects and other aspects of children's development, selecting appropriate assessment criteria, providing feedback, providing for children with special educational needs, recording and reporting, carrying out a range of types of assessment for a range of purposes and audiences. |

Figure 1. A sequence of elements to meet the standards for the award of Qualified Teacher Status [3]

Micro-teaching is a technique that can be used for various types of different professional development. Especially, it has become a successful and an interesting method for transferring theory into practice for a preserve teacher in a teacher education program. The purpose of microteaching application is to develop skills in teaching [5]. A microteaching session is a chance to adopt new teaching and learning strategies and, through assuming the student role, to get an insight into students' needs and expectations. It is a good time to learn from others and enrich one's own repertoire of teaching methods. A microteaching session is much more comfortable than real classroom situations, because it eliminates pressure resulting from the length of the lecture, the scope and content of the matter to be conveyed, and the need to face large numbers of students, some of whom may be inattentive or even hostile. Another advantage of microteaching is that it provides skilled supervisors who can give support, lead the session in a proper direction and share some insights from the pedagogic sciences.

In micro teaching, teacher candidates find opportunities to develop skills in drawing learners' attention, asking questions, using and managing time effectively and bringing the lesson to a conclusion. Also, through micro teaching, the teachers' class management skills improve. They acquire the skills to choose appropriate learner activities, use teaching goals, and overcome difficulties encountered during the process. During learner learning, on the other hand, teacher candidates improve their skills in giving feedback and measurement and evaluation. Furthermore, by observing the presentation of their friends they find a chance to observe and evaluate different teaching strategies [6].

Micro teaching helps develop skills to prepare lesson plans, choose teaching goals, speak in front of a group, and to ask questions and use evaluation techniques. Teachers' self confidence grows in a comfortable environment. It provides an opportunity to learn multiple skills that are important for teaching in a short time. It is a useful experience to learn how to realize teaching goals through planning a model lesson. It shows how preparation, organization, and presentation are important in learners' learning. Choosing activities, putting them in a logical order, maintaining improvement make it possible to become a whole with the content. Receiving immediate feedback is a means to determine productivity and using teaching strategies. By asking appropriate questions a strong learning environment can be established. Also, it allows for asking questions at various difficulty levels. Also, it makes it possible to create an environment that involves thinking differently and interaction [7].

2.3 Video Based Learning

As film and later video technologies developed, teacher educators quickly recognized their potential to magnify the perceived relevance and actual power of teacher education and professional development programs. These technologies offered unique affordances that appeared especially well-suited to teacher educators' agendas. Video-based multimedia can enhance teacher education by stimulating intending teachers to engage more effectively in the process of productive professional learning [19].

One the earliest applications of video to teacher education was the development of microteaching. As its name implies, the goal of microteaching was to experiment with teaching at a micro-level – teaching was scaled down in terms of instruction time, class size, and instructional strategies used. At the beginning of a typical microteaching session, the participant was introduced to a specific teaching skill such as lecturing or leading a discussion [20].

Video feedback was also an important part of the microteaching process. The lesson itself was videotaped and immediately following, the participant used the video to analyze his or her success with the selected skill. In some cases, the participant watched the video with a supervisor. Either way, the next step was for the participant to restructure the lesson as needed and reteach the lesson to a new group of students. The cycle of reteaching and video analysis continued until the participant demonstrated mastery of the focus skill.

For example, Borg : explored the use of microteaching to modify the ways in which inservice teachers conducted whole-class discussions. In one case, teachers were introduced to a set of probing techniques including prompting students with cues, asking students for further clarification, and helping students relate their responses to other relevant topics [20].

Video technology entered the field of teacher training intertwined with microteaching, a behaviourist strategy to enhance the teaching/learning process. As applied to teacher training, microteaching has four main objectives: 1) assess the student teachers' overall teaching skills; 2) identify skills that require improvement; 3) provide a system for practicing the skills; and 4) monitor the skill development process [5].

2.4 Social Media as Media Learning

ICT developments at this time gave the impact to the many users of social media one of which is Facebook. Facebook is a social networking and web site launched in February 2004.

"Founded in February 2004, Facebook is a social utility that helps people communicate more efficiently with their friends, family and co-

workers. The company develops technologies that facilitate the sharing of information through the social graph, the digital mapping of people's real-world social connections. Anyone can sign up for Facebook and interact with the people they know in a trusted environment." [21].

This social networking site is one of the most recent example of the use of ICT has been widely adopted by students, so has the potential to become a valuable resource to support communication and collaboration in education. The results suggest that Facebook is an open technology to support the work of the classroom [22]. The results of other studies also showed that Facebook can be used for education, although the portions are small, and still more widely used to disclose information that is more personal [23].

The use of ICT tools to facilitate the learners in the field of education needs to be improved continuously. As the use of social network Facebook to go to college there is currently no microteaching doing. Program on Facebook makes it possible to incorporate video, text, images and other media. The use of Facebook for microteaching eg by uploading a video of the presentation and invited to comment on the presentation.

3. Conclusion

Video recording is important to use as a tool for teaching aids for vocational teacher candidates to develop teaching skills. This video will be more meaningful and successful if it can be viewed and commented upon whenever and wherever. One way to maximize the video recording is to use the applications in social media like facebook. Where video recordings and other student's comments can be presented simultaneously so as to help prospective teachers become easy to practice teaching.

REFERENCES

[1] **UU No.20.** Sistem Pendidikan Nasional. 2003.

[2] **Bullock, S. M.** Inside Teacher Education : Challenging Prior Views of Teaching and Learning. Rotterdam : Sense Publishers, 2011.

[3] **Cohen, Louis, Manion, Lawrence and Morrison, Keith.** A Guide to Teaching Practice : Fifth edition. New York : Simultaneously, 2004.

[4] **Allen, Dwight W.** Micro-teaching : A Description. California : Stanford University, 1967.

[5] The effect of micro teaching application on the preservice teachers'teacher competency levels. **Karçkay, A. T. & Sanlı, S.** 2009, Journal Procedia Social and Behavioral Sciences 1, pp. 844–847.

[6] The Experiences of Lecturers and Students in. **Higgeins, A., & Nicholl, H. .** 2003, Nurse Education in Practice, 3 , pp. 220-227.

[7] **Gee, J. B.** Innovation In Instructional Strategies Used With Graduate. Knoxville : The Mid-South Education Research Association, 1992.

[8] Rethinking the use of video in teacher education: A holistic approach. **Masats, D. & Dooly, M.** 2011, Journal Teaching and Teacher Education 27, pp. 1151-1162.

[9] Let's make a movie: Investigating pre-service teachers' reflections on using video-recorded role playing cases in Turkey. **Koc, M.** 2011, Teaching and Teacher Education 27, pp. 95-106.

[10] An evaluation of streaming digital video resources in on- and off-campus engineering management education. **Palmer, S.** 2007, Journal Computers & Education 49, pp. 297–308.

[11] Learner-Centered Micro Teaching In Teacher Education. **Kilic, A.** 2010, International Journal of Instruction. January 2010 Vol.3, No.1., pp. 77-100.

[12] Enhancing the teaching experience of pre-service teachers through the use of videos in web-based computer-mediated communication (CMC) . **Lee, G.C., & Wu, C. C.** 2006, Innovations in Education and Teaching International Vol. 43, No. 4, pp. 369–380.

[13] **Leighbody, G. B.** Methods of Teaching Shop and Technical Subjects. New York : Delmar, 1968.

[14] **Commission, Communities of The European.** Improving the Quality of Teacher Education. 3 8 2007.

[15] **Perkins, D. & Blythe, T.** The Teaching for Understanding Framework. San Francisco : Jossey-Bass, 1998.

[16] **Biggs, J. & Tang, C.** Teaching for Quality Learning at University : What the Student Does, 3rd edition. New York : McGraw-Hill, 2007.

[17] **Kyriacou, C.** Effective Teaching in Schools, Third Edition : Theory and Practice. Cheltenham : Stanley Thornes, 2009.

[18] **Fry, H., Ketteridge, S., & Marshall, S.** A Handbook for Teaching and Learning in Higher Education : Enhancing Academic Practice Third edition. New York : Taylor & Francis, 2011.

[19] **Naidu, S.** Learning and teaching with technology: principles and practices. London : Taylor & Francis e-Library, 2005.

[20] **Brophy, J.** Using Video in Teacher Education: Advances in Research on Teaching, Volume 10. s.l. : Emeral Group, 2003.

[21] The threats of social networking: Old wine in new bottles? Weir, George R.S., Toolan, Fergus dan Smeed, Duncan. 2011, information security technicalreport 1 6, hal. 38-43.

[22] Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. Roblyer, M.D., et al., et al. 2010, Internet and Higher Education 13, p. 134–140.

[23] Students' and teachers' use of Facebook. Hew, Khe Foon. 2011, Computers in Human Behavior 27, p. 662–676.