

Article Contribution to The New Educational Review

Kotak Masuk x



Heri Retnawati <retnawati.heriuny1@gmail.com> Sab, 8 Apr 2017 08.34

ke The

Dear Editor of The New Educational Review,

We sent an article, entitle "Teachers' Difficulties in Implementing Thematic Teaching and Learning in Elementary School" as contribution to The Educational Review.

Thank you.

Best Regards,
Heri Retnawati

Area lampiran



stanislaw.juszczyk@us.edu.pl Min, 9 Apr 2017 01.57

ke saya

Terjemahkan pesan
Nonaktifkan untuk: Inggris
Dear Dr Retnawati,

thank you very much for a contribution sent to The New Educational Review. However, I have the following remarks:

1. a manuscript is to long; we have limited a lenght of every manuscript to 25,000 of characters with spaces, tables, figures and references – cf. Guide for Authors on our website.
2. every author is please to send with a manuscript the filled in and signed the declaration and copyright form, taken from our website. Without it we can not send the manuscript to the editorial process.

I am waiting for the improved version of your contribution.

Sincerely,
Full Professor Stanisław Juszczak
Editor in Chief of The New Educational Review
www.educationalrev.us.edu.pl

From: [Heri Retnawati](#)
Sent: Saturday, April 08, 2017 2:34 AM
To: [The Educational Review](#)
Subject: Article Contribution to The New Educational Review



Heri Retnawati <retnawati.heriuny1@gmail.com> Jum, 14 Apr 2017 18.12

ke The

Dear Professor Stanisław Juszczak
(Editor of The Educational Review)

We have revised our paper in line with all of your remark.
If there is any more revision, please let us know.

Thank you.

Best Regards,

Heri Retnawati



DECLARATION AND COPYRIGHT TRANSFER FORM

I. PERSONAL DATA

Corresponding author

Name: Heri, **Surname:** Retnawati, **e-mail:** heri_retnawati@uny.ac.id, **Affiliation:** Universitas Negeri Yogyakarta, Indonesia

First author:

Name: Heri, **Surname:** Retnawati, **e-mail:** heri_retnawati@uny.ac.id, **Affiliation:** Universitas Negeri Yogyakarta, Indonesia

Second author:

Name: Sudji, **Surname:** Munadi, **e-mail:** sudjimunadi@uny.ac.id, **Affiliation:**

Third author:

Name: Janu, **Surname:** Arlinwibowo, **e-mail:** januarlinwibowo@windowlive.com,
Affiliation: Universitas Negeri Yogyakarta, Indonesia

Fourth author:

Name: Nidya, **Surname:** Ferry Wulandari, **e-mail:** [nidyaferri@gmail.com](mailto:nidyaferry@gmail.com), **Affiliation:** Universitas Negeri Yogyakarta, Indonesia

Fifth author:

Name: Eny, **Surname:** Sulistyaningsih, **e-mail:** enylistya@gmail.com, **Affiliation:** Universitas Negeri Yogyakarta, Indonesia

II. DECLARATION

I/We, Heri Retnawati, Sudji Munadi, Janu Arlinwibowo, Nidya Ferry Wulandari, Eny Sulistyaningsih, the author (-s) of the paper entitled '**TEACHERS' DIFFICULTIES IN IMPLEMENTING THEMATIC TEACHING AND LEARNING IN ELEMENTARY SCHOOLS**' declare that this manuscript is an original scientific paper, and the manuscript has not been published in other journal or handed over (transferred) to other journal for publication. The manuscript was submitted only to the '*The New Educational Review*'. It will not be submitted anywhere else for publication prior to acceptance/rejection by TNER.

We declare that this manuscript was checked and edited by an English language editor.

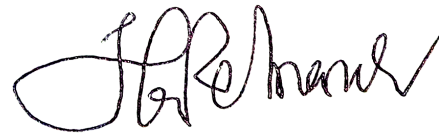
The copyright to this article is transferred to the Wydawnictwo Adam Marszałek if and when the article is accepted for publication. The undersigned hereby transfers any and all rights in and to the paper including without limitation all copyrights to the center.



I/We also certify that this paper is the whole contribution and original of me/ours and has not been copied from elsewhere.

The corresponding author signs for and accepts responsibility for releasing this material on behalf of any and all co-authors. This agreement is to be signed by at least one of the authors who have obtained the assent of the co-author (-s) where applicable. After submission of this agreement signed by the corresponding author, changes of authorship or in the order of the authors listed will not be accepted.

Yours Sincerely,


Heri Retnawati

Date: 2017-04-13

TEACHERS' DIFFICULTIES IN IMPLEMENTING THEMATIC TEACHING AND LEARNING IN ELEMENTARY SCHOOLS

Heri Retnawati, Sudji Munadi

Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Janu Arlinwibowo, Nidya F. Wulandari

Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Eny Sulistyaningsih

Universitas Negeri Yogyakarta, Yogyakarta, Indonesia

Abstract

The objective of this study was to identify teachers' difficulties in implementing thematic learning in elementary schools. The study was phenomenology-type qualitative research. The data were collected through interviews followed by focus group discussion; the focus group discussion involved 15 elementary school teachers from eight provinces that have implemented Curriculum 2013. The data were analyzed by means of Creswell steps. The results of the study showed that teachers encountered obstacles in selecting appropriate problems and themes within thematic, scientific and problem based learning and in managing time for project based learning. The availability of learning facilities was still limited. The problems that had been found in the assessment stage was the teachers' capacity in selecting appropriate techniques, in creating good instruments and in formulating clear assessment criteria.

Key words: *teachers' difficulties, thematic learning, elementary schools.*

Introduction

The change of learning paradigm in the 21st century brings about changes in the curriculum. Chen (2012) explains that the traditional learning activities with their teacher-centered paradigm always follow the material sequence in textbook. The paradigm has been considered less relevant to the demands of the 21st century. Therefore, Harris & Rooks (2010) state that the new learning paradigm urges teachers should help students develop their expertise and capacity in locating and linking concepts in discovery or invention activities or known as student-centered approach.

The curriculum change is also confirmed by Liu & Wang (2010), that in accordance with the definition of integrated curriculum the learning materials should be well arranged in such a way that they will be able to provide better learning impacts. Multiple changes in the learning activities and the competencies that students should master are delivered gradually to schools. The significant matter that has changed in Curriculum 2013 is the new approach that should be applied namely the thematic approach. This approach contains scientific learning, problem-based learning (PBL) and project-based learning (PjBL).

Thematic learning is one of the learning strategies that have been proposed by many researchers and psychologists (Mirjalili, Jabbari & Rezai, 2012). The reasons for implementing the thematic learning as having been suggested by Min, Rashid & Nazri (2012), is that students will learn better because the learning activities are initiated by problems that have been presented under selected themes. Davis & Shankar-Brown (2011) assert that thematic learning is an approach that is suitable for the learners' development in the 21st century. The reason is that the steps enable teachers to provide challenges students in order to think widely regarding the theme. Then, they should learn it to link with the science that becomes their interest. The importance of thematic learning is provided by Mirjalili, Jabbari & Rezai (2012) who state that in thematic learning there is a process

of associating. It is in accordance with the mandate of Curriculum 2013 in relation to scientific learning.

A thematic curriculum is a set of organized learning experiences that provide students with the opportunity to explore widely the main learning theme (Finch, Frantz, Mooney & Aneke, 1997). Min, Rashid & Nazri (2012) and Chen (2012) state that thematic learning has been one of the effective strategies for contextual learning that is related to the students' daily experiences. In addition, the professional teachers should support students in creating a connection among multiple problem solving methods. In thematic learning, teachers should design learning curricula, learning methods, and assessments and also associate the materials to multiple domains of science within one theme. It emphasizes not only the multiple domains of science but also the multiple cognitive capacities such as reading, mathematics, science, writing and society (John, 2015; Finch, Frantz, Mooney & Aneke, 1997).

In other words, thematic teaching and learning involves the use of themes as the starting point of teaching and learning that will strengthen the students with their knowledge. Krey (1994) states that there are many kinds of theme that might be used in a thematic teaching and learning in order to improve the students' learning experiences. Another learning approach in Curriculum 2013 is scientific learning, problem based learning (PBL) and project based learning (PjBL). Scientific learning is a learning process that has steps namely observing, questioning, gathering information, associating and communicating. On the other hand PBL is a learning model that starts with an introduction toward relevant problems in the learning cycle and to motivate the students in their learning process (Prince, 2004). PBL provides an opportunity for the students to be active, cooperative and collaborative. Thematic integrative learning might be implemented toward elementary school students by creating projects as the materials for establishing a connection toward multiple domains of science or of subjects for the sake of achieving the learning objectives that have been embedded in the students' mind (Bradbury, 2008). Therefore, PjBL is also relevant to increase students' knowledge about the projects that will be assigned are interdisciplinary.

Related to thematic learning in Curriculum 2013, many studies display the effectiveness of thematic learning. According to a study by Liu & Wang (2010), web-based thematic learning has positive impacts on the students' concept learning. The results of another study by Ardianti, Prasetyo & Susanti (2014) showed that thematic learning by means of discovery-based module has impacts on the students' learning results. Min, Rashid & Nazri (2012) have also found that there is a significant relationship between the teachers' understanding of the thematic approach and the teachers' learning practice. The results show that the length of teachers' teaching experience does not show significant differences in thematic learning practice. Another study by John (2015) also uncovers that teachers who understand the thematic curriculum and students' needs should be more effective in implementing the new thematic curriculum and the integrated curriculum.

Recalling the importance of integrated and connected learning, the development of higher order thinking skills is heavily demanded with the increasing global competition. In addition, Davies & Shankar-Brown (2011) state the importance of preparing a generation of educators in order to develop teachers' competencies in planning and implementing thematic learning. Each curriculum change in a school will heavily depend on teachers' competence and expertise (Darling-Hammond, 2010). Therefore, the researchers through this study would like to uncover the teachers' difficulty in implementing thematic learning within elementary schools.

Methodology of Research

This study is a phenomenology-type qualitative research. The data were gathered by means of FGD followed by in-depth interviews in order to gather the elementary school teachers' difficulties in implementing thematic learning. The participants were 15 elementary school teachers

(T1-T15) from eight provinces in Indonesia, consisting of eight male teachers and seven female teachers. There were five teachers (T1, T2, T9, T10 and T11) had not attended the training of Curriculum 2013, while the remaining 10 teachers had attended the training. Three teachers attended the training or the socialization of Curriculum 2013 in their school (T5, T6 and T8), T7 is a national instructor of Curriculum 2013 and the others attended the training or the socialization of Curriculum 2013 in the regency level. At the beginning of data gathering, the researchers held the FGD; and then, the researchers followed up the FGD by means of in-depth interviews. The data were analyzed by referring to the steps of Creswell (2014) namely: defining and preparing data, reading overall data, encoding data in order to define the theme and to create description, establishing the inter-theme connection, and interpreting the theme or the description.

Results of Research

Results of Research

The results of data analysis, are categorized in terms of teachers' understanding, teaching and learning implementation, teaching and teaching and learning facilities and assessment conducted in order to uncover the difficulties of elementary school teachers in implementing thematic teaching and learning.

Teachers' Understanding

The results of the teachers' understanding of thematic learning are presented in Table 1.

Table 1. The Teachers' Understanding of the Thematic Teaching and Learning

Description	Difficulty and Cause	Strategy
The teachers' understanding of the curriculum, including the competence standard	Many teachers responded negatively to the process of curriculum transition.	<ol style="list-style-type: none"> 1. Continuous training and mentoring 2. Curriculum socialization and training that would not only be limited to theoretical review 3. Trained teachers who should share their knowledge and insight to their colleagues 4. The providence of mentoring program that involved the core schools as the center of information and the impacted schools by the government 5. The process of pursuing in-depth curriculum understanding independently.
	Many teachers did not want to change their mindset.	
	The teachers were not prepared to deal with the curriculum change.	
	Many teachers had not understood the new curriculum completely.	
The teachers' understanding of the thematic teaching and learning	The teachers had already understood the definition of thematic teaching and learning.	
The teachers' understanding of the PBL	The teachers were relatively familiar with the term PBL.	
The teachers' understanding of the PjBL	Teachers were not familiar with PjBL	
The teachers' understanding of the assessment	The teachers in general understood the assessment aspects within Curriculum 2013	
	The teachers had not understood the details of assessment process.	

The obstacles in changing the teachers' understanding of the curriculum change was the teachers' negative stigma and individual factors, such as that they still had not opened themselves toward the change and they still had low spirit of independent learning. Multiple massive steps that the government had taken in socializing the curriculum had brought about positive impacts. However, in practice there was a fact that not all teachers had completely understood. Overall,

teachers' understanding of Curriculum 2013 was not sufficient. Teachers were familiar with these approaches but they did not understand the essence and the steps of teaching and learning activities.

Learning Implementation

The results of the teachers' difficulty in implementing thematic teaching and learning activities are displayed in Table 2.

Table 2. Teachers' Difficulties in Thematic Teaching and Learning Implementation

Description	Cause	Strategy
The teachers' difficulty in implementing the thematic teaching and learning	The learning plan and preparation was relatively difficult.	1. It took creativity in order to perform inter-item association within one theme. 2. There should be an optimization toward the role of school principal as a supervisor. The school principal might control the learning implementation through a correction toward the learning sets and their implementation. The school principal might provide multiple educations toward the teachers through his or her role as a supervisor.
	The difficulties were responded by returning back to the partial learning process.	
The teachers' difficulty in implementing the scientific teaching and learning	It was difficult to implement the scientific learning path.	
	It was frequently occurred that the contexts had not been contextual.	
The teachers' difficulty in implementing the problem-based learning	The PBL model had been rarely implemented because it was considered difficult and complicated.	
	It was difficult to determine the appropriate problem base.	
	The teachers were still convenient with the teacher-centered approach.	
The teachers' difficulty in implementing the project-based learning	It was difficult to manage the time in the PjBL approach.	
	It was difficult to select the appropriate project.	
	The teachers were still convenient with the teachers-centered approach.	
The teachers' difficulty in exercising the HOTS	There were many teachers who had not understood the HOTS and its development.	
	The students had not been accustomed to the HOTS and its development.	

In the study, the teaching and learning and the scientific concept had not been totally implemented. Teachers were trapped into the process of 5M. Problem-based learning and project-based learning had also been less implemented because they had been considered difficult and complicated. Therefore, most of the teachers believed that it would be more convenient to implement the teacher-centered learning method. The challenges and the demands for developing the higher-order thinking skill (HOTS) capacity had not also appeared. The difficulties included the process implementation that had not developed the HOTS capacity.

Learning Facilities

The results of the difficulties that elementary school teachers encountered in terms of learning facilities are displayed in Table 3. There is a problem in the distribution and quantity of books. It is demanded teachers to be more creative in order that the learning process can run well according to the curriculum's demand.

Assessment

The results of the teachers' difficulty in implementing the assessment through thematic learning are displayed in Table 4. In general, the difficulties were the teachers' capacity in selecting the appropriate technique, the design of good instrument and the design of clear score description especially in the attitude assessment. Then, another obstacle was the rubric design. Another difficulty was the teachers had not been accustomed to describing the scores into the descriptive of regarding the students' capacity clearly and briefly.

Table 3. The Teachers' Difficulties in Terms of Learning Facilities

Description	Cause	Strategy
Book availability	There had been delays in the book distribution toward the schools.	1. The school directed the teachers and the students to download the books from the Internet. 2. The school suggested the teachers to design lesson plans according to the new curriculum independently, including the theme composition.
	The book quantity had not been balanced to the number of students.	
	The library quality had been less sufficient.	
Learning media/supporting display	The teachers rarely used learning media.	The teachers were demanded to be creative in providing the learning media independently
	The variation in terms of school facility had been high from one school to another.	
	The learning media availability had been limited.	

Table 4. The Teachers' Difficulties in Terms of Assessment

Description	Cause	Strategy
Spiritual attitude assessment	The class size is very big	The score output was designed in two versions namely in description and in number
	The assessment frequency is high	
	There are no been similar learning results among the teachers.	
Social attitude assessment	The teachers cannot select and to implement the effective and efficient attitude assessment technique.	
Knowledge assessment	The determination of test item composition is difficult.	
	Teachers have difficulties especially with regards to the mapping of students' capacity.	
Skills assessment	It is difficult to design an assessment rubric.	
Should the assessment involve the HOTS?	The assessment does not reach the HOTS	
School report writing	The teachers have difficulties in creating the description.	

Discussion

Teachers' Understanding

One of the dynamics that can be seen in the process of curriculum change in Indonesia is the teachers' response. Several facts show that there are many teachers who show negative responses. As a result, many teachers refuse to change their mindset in teaching and learning. It is certainly in contrary to the statement that teachers should have sufficient capability to increase their students' learning achievement so that the learning process is successful and able to accommodate the students' needs (Martel, 2009). According to Kalelioğlu & Gülbahar (2014, p.248), in the 21st

century an individual should have the capacity of critical thinking, problem solving and creative thinking.

Therefore, it is the government's duty to socialize the new curriculum. However, many teachers admitted that they had not attained an in-depth understanding of Curriculum 2013. It become worse because training are still oriented toward theoretical matters. In addition, teachers also complain of the short training period. The training cannot explain real situations in the teaching and learning processes. Teachers should realize that training is a process of preliminary introduction and multiple processes toward understanding the curriculum should be conducted personally. Chen (2012) states that teachers should have strong and powerful materials, they should realize ideas and themes that will be implemented in the teaching and learning processes and they should understand how well they teach concepts to their students.

The demand of elementary school curriculum is to implement PBL and PjBL. In general, PBL is more familiar. Through in-depth investigation, it found that the teachers do not understand both models profoundly. Most teachers stated that the teaching and learning processes might be in accordance with the suggested models but they did not plan the model syntax. As a result, they could not categorize to which model their teaching process belonged.

The government held mentoring programs that involved core schools and impacted schools. Core schools referred to the schools that are appointed as the center of information. The programs are called ON namely the mentoring of targeted teachers that would be conducted by the regency-level instructors, IN namely the discussion around multiple findings during the ON program and solutions.

Thematic Learning Implementation

Many teachers' problems leads to many problems in the teaching and learning implementation. The first problem is many teachers complained of the difficulty in combining multiple lessons into a single theme. The results of the study strengthened those of the previous ones by Finch, Frantz, Mooney & Aneke (1997), which found that teachers had difficulties in understanding and in implementing thematic curricula.

Besides of those multiple cases presented by teachers as an introduction rarely encourage the students to reason successfully in scientific approach. Unfortunately, reasoning has been a process that might be the students' gate to perform an in-depth understanding and teachers' identification of the students' thinking level. Then, PBL and PjBL models have seldom been relatively implemented by the teachers. In general, teachers admitted that they often included appropriate problems in the PBL process. In relation to the PjBL, teachers' complaint is the difficulty in selecting the appropriate project and time management. Such problems were caused by unpreparedness the teachers in the implementation. One of the reasons that most teachers stated was the demand for completing the learning materials. It shows that there has been a focus on the development of cognitive domain solely. It is very possible that the learning process might run very fast and even might encompass the extensive and intensive materials if the learning materials have been well-designed.

One of the skills that should be developed in Curriculum 2013 has been the Higher Order Thinking Skills (HOTS). It was a response toward the demand of the century that encouraged the students not only to explain and to implement theories but also to solve problems through analysis-, evaluation- and creation-level thinking. However, the data showed that it had been rare that the elementary school teachers hardly understood the HOTS.

One of the strategies to improve teachers' performance is by exerting school principal's role. The data showed that an elementary school whose principal was attentive had good administration and more professional teachers. A school principal has a strategic role in correcting the suitability of the lesson plans and with curriculum and in providing multiple explanations at the same time.

Learning Facilities

Facilities are other important factors within the implementation teaching and learning processes. The facilities which are anticipated are the student's and the teacher's books. However, many delays of the distribution of Curriculum 2013 books have been often found. Another problem is the mismatch in the number of books and the students. Therefore, most schools implemented a policy that one book should be used by two students, the teachers and the students to download the book from the Internet and the downloaded book might be turned into a matter of guidance for the teaching and learning process. Unfortunately, the library facilities in most of elementary schools are limited. The alternative would be suggesting the teachers to design a teaching and learning process that will be in accordance to the new curriculum independently and this would include the theme design.

Teaching and learning process in the classroom should be multiple supporting media. Typically, elementary schools have the fundamental displayed tools. However, not many schools have other media such as geometrical build model, human skeleton model, animal digestive system model, computer and the Internet facility. Consequently, many teachers admitted that they rarely used the teaching and learning media due to the limited support provided by the school.

Assessment Implementation

The attitude assessment is most teachers often complain about. The teachers cannot design a good instrument from the formulation of the conceptual definition from the formulation of the operational definition to the formulation of indicators and test items. In general, the process is perceived to be very difficult and the results of this process will be inclined to bias. The second problem is the assessment process. Many teachers often complain the big class size. Consequently, the process is very difficult. The problem in cognitive assessment is the determination of test item construction in terms of both theme mastery and lesson mastery. For the remaining part, the teachers are relatively familiar and relatively understand the knowledge.

The difficulty in the skills assessment is designing the assessment rubric. The description is considered the most difficult process. It is not well designed causes they to have difficulties in maintaining the objectives. This result supports the previous research by Retnawati, Hadi, & Nugraha (2016) that teachers had difficulty in developing the instrument of attitude, formulating the indicators, and designing the assessment rubric.

The final stage within the assessment process is the school rapport card writing. Basically, the score contains the achievement of student's competency so that the students focus on comparing not only their achievement to their peers but also their own achievement. The scores are displayed in a description of achievement and it is considered difficult by the teachers. The teachers are not been accustomed to writing the description. Consequently, it had been complained by the teachers.

Conclusions

The greatest challenge in the curriculum process has been the teachers' negative stigma. Multiple massive efforts that have been taken by the government have provided positive impacts. However, the research found that many teachers have not completely understood Curriculum 2013. The reason is that they are physically confused, afraid and do not open themselves toward the change; as a consequence, the efforts to understand the curriculum are not appeared in maximum. The teaching and learning process has not been fully conducted due to the teachers' multiple difficulties. It include the implementation and the learning contents that have not developed the HOTS. The teaching facilities in the form of learning resources and learning media are limited; as a

result, the teachers are demanded to be creative so that the teaching and learning process can be conducted well. The problems in the assessment stage are the teachers' capacity in selecting the appropriate technique, in designing the good instrument and in designing a clear assessment description.

References

- Ardianti, S. D., Prasetyo, A. P. B., & Susanti, R. (2014). Developing thematic inquiry-discovery module on metabolism for junior high school students. *International Conference on Mathematics, Science, and Education, ICMSE 2014*, Faculty of Mathematics and Natural Sciences Semarang State University.
- Bradbury, K. (2008). *The positive attributes of integrated thematic curriculum for primary grades*. La Verne, CA: EDUC 596, University of La Verne.
- Chen, Y. (2012). The effect of thematic video-based instruction on learning and motivation in e-learning. *International Journal of Physical Sciences*, 7 (6), 957–965.
- Darling-Hammond, L. (2010). *Evaluating teacher effectiveness: How teacher performance assessments can measure and improve teaching*. Washington, DC. Center for American Progress.
- Davies, M. & Shankar-Brown, R. (2011). A programmatic approach to teaming and thematic instruction. *North Carolina Middle School Association Journal*, 26 (1), 1-17.
- Finch, C. R., Frantz, N. R., Mooney, M. & Aneke, N. O. (1997). *Designing the Thematic Curriculum: an all aspects approach*. Berkeley, CA: National Center for Research in Vocational Education Graduate School of Education University of California.
- Harris, C. J. & Rooks, D. L. (2010). Managing inquiry-based science: challenges in enacting complex science instruction in elementary and middle school classrooms. *J Sci Teacher Educ*, 21, 227–240.
- John, Y. J. (2015). A “new” thematic, integrated curriculum for primary schools of Trinidad and Tobago: a paradigm shift. *International Journal of Higher Education*. 4(3), 172-187.
- Kalelioğlu, F. & Gülbahar, Y. (2014). The effect of instructional techniques on critical thinking and critical thinking dispositions in online discussion. *Educational Technology & Society*, 17(1), 248–258.
- Krey, D. M. (1994). *Operationalizing the thematic strands of social studies for young learners*. Madison, WI: National Council for the Social Studies, University of Wisconsin.
- Liu, M. C., & Wang, J. Y. (2010). Investigating knowledge integration in web-based thematic learning using concept mapping assessment. *Educational Technology & Society*, 13(2), 25–39.
- Martel, H. A. (2009). Effective strategies for general and special education teachers. *Senior Honors Theses*. Paper 210.

Min, K. C., Rashid, A. M., & Nazri, M. I. (2012). Teachers' understanding and practice towards thematic approach in teaching integrated living skills (ILS) in Malaysia. *International Journal of Humanities and Social Science*, Vol. 2 No. 23; December 2012, 273–281.

Mirjalili, F., Jabbari, A. A., & Rezai, M. J. (2012). The effect of semantic and thematic clustering of words on Iranians Vocabulary learning. *American International Journal of Contemporary Research*, Vol. 2 No. 2; February 2012, 214 – 222.

Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231.

Retnawati, H., Hadi, S., & Nugraha, A. C. (2016). Vocational high school teachers' difficulties in implementing the assessment in Curriculum 2013 in Yogyakarta Province of Indonesia. *International Journal of Instruction*, 9(1), 33-48.

<i>Heri Retnawati</i>	Dr., lecturer & researcher, Yogyakarta State University, Yogyakarta, Indonesia. E-mail: heri_retnawati@uny.ac.id Website: https://www.scopus.com/authid/detail.uri?authorId=56896145400 https://scholar.google.co.id/citations?user=7CzPTYIAAAAJ&hl=en
<i>Sudji Munadi</i>	Prof., lecturer & researcher, Yogyakarta State University, Yogyakarta, Indonesia. E-mail: sudji.munadi@uny.ac.id Website: https://scholar.google.co.id/citations?user=JDBOGG8AAAAJ&hl=en
<i>Janu Arlinwibowo</i>	M. Pd., alumnae, Yogyakarta State University, Yogyakarta, Indonesia. E-mail: januarlinwibowo@windowslive.com Website: https://scholar.google.co.id/citations?user=0tVmCcssAAAAJ&hl=en
<i>Nidya F. Wulandari</i>	M. Pd., alumnae, Yogyakarta State University, Yogyakarta, Indonesia. E-mail: nidyaferri@gmail.com Website: https://scholar.google.co.id/citations?user=TCH-r5AAAAAJ&hl=en
<i>Eny Sulistyarningsih</i>	M. Pd., alumnae, Yogyakarta State University, Yogyakarta, Indonesia. E-mail: enylistya@gmail.com Website: https://scholar.google.co.id/citations?user=SMGhHaYAAAAJ&hl=en

*Heri Retnawati, Sudji Munadi
Janu Arlinwibowo, Nidya Ferry Wulandari
Indonesia*

TEACHERS' DIFFICULTIES IN IMPLEMENTING THEMATIC TEACHING AND LEARNING IN ELEMENTARY SCHOOLS

Abstract

The objective of this study was to identify teachers' difficulties in implementing thematic learning in elementary schools. The study was phenomenology-type qualitative research. The data were collected through interviews followed by focus group discussion; the focus group discussion involved 15 elementary school teachers from eight provinces that have implemented Curriculum 2013. The data were analyzed by means of Creswell steps. The results of the study showed that teachers encountered obstacles in selecting appropriate problems and themes within thematic, scientific and problem based learning and in managing time for project based learning. The availability of learning facilities was still limited. The problems that had been found in the assessment stage was the teachers' capacity in selecting appropriate techniques, in creating good instruments and in formulating clear assessment criteria.

Keywords: *teachers' difficulties, thematic learning, elementary schools.*

Introduction

The change of learning paradigm in the 21st century that increasingly demands students to have complex capabilities brings about changes in the curriculum. Chen (2012) explains that the traditional learning activities with their teacher-centered paradigm always follow the material sequence in textbook. Such paradigm has been considered less relevant to the demands of the 21st century that urge students to be active and creative thinker. Therefore, Harris & Rooks (2010) state that the new learning paradigm urges that teachers should help students develop their expertise and capacity in locating and linking concepts in discovery or invention activities or also known widely as student-centered approach.

The curriculum change is also confirmed by Liu & Wang (2010), that in accordance with the definition of integrated curriculum the learning materials should be well arranged in such a way that they will be able to provide better learning impacts. Multiple changes toward the approaches or the models in the learning activities and the competencies that students should master are delivered gradually to schools, especially to educators or teachers. The significant matter that has changed in Curriculum 2013, compared to the previous curricula, is the new approach that should be applied namely the thematic approach. This approach contains scientific learning, problem-based learning (PBL) and project-based learning (PjBL).

Thematic learning is one of the learning strategies that have been proposed by many researchers and psychologists (Mirjalili, Jabbari & Rezai, 2012). The reasons for implementing the thematic learning in Curriculum 2013, as having been suggested by Min, Rashid & Nazri (2012), is that students will learn better because the learning activities are initiated by problems that have been presented under selected themes. Davis & Shankar-Brown (2011) assert that thematic learning is an approach that is suitable for the learners' development in the 21st century. The reason is that the steps in thematic learning enable teachers to provide challenges toward students in order to think widely regarding the theme that they are studying. Then, they should learn this theme in order to link it with the science that becomes their interest. The importance of thematic learning is also provided by Mirjalili, Jabbari & Rezai (2012) who state that in thematic learning there is a process of associating. This statement is in accordance with the mandate of Curriculum 2013 in relation to scientific learning.

A thematic curriculum is a set of organized learning experiences that provide students with the opportunity to explore widely the main learning theme (Finch, Frantz, Mooney & Aneke, 1997). Min, Rashid & Nazri (2012) and Chen (2012) state that thematic learning has been one of the effective strategies for contextual learning that is related to the students' daily experiences. In addition, Finch, Frantz, Mooney & Aneke (1997), Anthony & Walshaw (2009), Chen (2012), Min, Rashid & Nazri (2012) and Rosenshine (2012) assert that professional teachers should support students in creating a connection among multiple problem solving methods, between mathematical topics and representations and between mathematics and students' daily life. In thematic learning, teachers should design learning curricula, learning methods, and assessments and they should also associate the materials to multiple domains of science within one theme that has been selected for the learning activities. Thematic learning emphasizes not only the multiple domains of science but also the multiple cognitive capacities such as reading, mathematics, science, writing and society (John, 2015; Finch, Frantz, Mooney & Aneke, 1997).

In other words, thematic teaching and learning involves the use of themes as the starting point of teaching and learning processes that will strengthen the students with the knowledge that they have attained. Krey (1994) states that there are many kinds of theme that might be used in a thematic teaching and learning in order to improve the students' learning experiences. Another learning approach that belongs to thematic learning as mandated in Curriculum 2013 is scientific learning, problem based learning (PBL) and project based learning (PjBL). Scientific learning is a learning process that has steps namely observing, questioning, gathering information, associating and communicating. On the other hand PBL is a learning model that starts with an introduction toward relevant problems in the learning cycle and to motivate the students in their learning process (Prince, 2004). PBL provides an opportunity for the students to be active, cooperative and collaborative. Thematic integrative learning might be implemented toward elementary school students by creating projects as the materials for establishing a connection toward multiple domains of science or of subjects for the sake of achieving the learning objectives that have been embedded in the students' mind (Bradbury, 2008). Therefore, PjBL is also relevant to the implementation among students comprehensively in order to increase their knowledge about the projects that will be assigned are interdisciplinary.

Related to thematic learning in Curriculum 2013, many studies display the effectiveness of thematic learning. According to a study by Liu & Wang (2010), web-based thematic learning has positive impacts on the students' concept learning. The results of another study by Ardianti, Prasetyo & Susanti (2014) showed that thematic learning by means of discovery-based module has impacts on the students' learning results. Min, Rashid & Nazri (2012) have also found that there is a significant relationship between the teachers' understanding of the thematic approach and the teachers' learning practice. The results of this study show that the length of teachers' teaching experience does not show significant differences in thematic learning practice. Another study by John (2015) also uncovers that teachers who understand the thematic curriculum and students' needs should be more effective in implementing the new thematic curriculum and the integrated curriculum.

Recalling the importance of integrated and connected learning in all domains of science for the 21st century learners, the development of higher order thinking skills is heavily demanded along with the increasing global competition. This is a challenge for teachers in creating such learning. In addition, Davies & Shankar-Brown (2011) state the importance of preparing a generation of educators in order to develop teachers' competencies in planning and implementing thematic learning. Each curriculum change in a school will heavily depend on teachers' competence and expertise (Darling-Hammond, 2010). Therefore, the researchers through this study would like to uncover the teachers' difficulty in implementing thematic learning within elementary schools.

Methods

This study is a phenomenology-type qualitative research. The data were gathered by means of FGD followed by in-depth interviews in order to gather the elementary school teachers' difficulties in implementing thematic learning. The participants were 15 elementary school teachers (T1-T15) from eight provinces in Indonesia, consisting of eight male teachers and seven female teachers. There were five teachers (T1, T2, T9, T10 and T11) had not attended the training of Curriculum 2013, while the remaining 10 teachers had attended the training. Three teachers attended the training or the socialization of Curriculum 2013 in their school (T5, T6 and T8), T7 is a national instructor of Curriculum 2013 and the others attended the training or the socialization of Curriculum 2013 in the regency level. At the beginning of data gathering, the researchers held the FGD; and then, the researchers followed up the FGD by means of in-depth interviews. The data were analyzed by referring to the steps of Creswell (2014) namely: defining and preparing data, reading overall data, encoding data in order to define the theme and to create description, establishing the inter-theme connection, and interpreting the theme or the description.

Results of Research

The results of data analysis, are categorized in terms of teachers' understanding, teaching and learning implementation, teaching and teaching and learning facilities and assessment conducted in order to uncover the difficulties of elementary school teachers in implementing thematic teaching and learning.

1. Teachers' Understanding

The results of the study regarding the teachers' understanding of thematic learning are presented in Table 1 as follows.

Table 1. The Teachers' Understanding of the Thematic Teaching and Learning

Description	Difficulty and Cause	Strategy
The teachers' understanding of the curriculum, including the competence standard	Many teachers responded negatively to the process of curriculum transition.	<ol style="list-style-type: none"> 1. Continuous training and mentoring 2. Curriculum socialization and training that would not only be limited to theoretical review 3. Trained teachers who should share their knowledge and insight to their colleagues 4. The providence of mentoring program that involved the core schools as the center of information and the impacted schools by the government 5. The process of pursuing in-depth curriculum understanding independently.
	Many teachers did not want to change their mindset.	
	The teachers were not prepared to deal with the curriculum change.	
	Many teachers had not understood the new curriculum completely.	
The teachers' understanding of the thematic teaching and learning	The teachers had already understood the definition of thematic teaching and learning.	
The teachers' understanding of the PBL	The teachers were relatively familiar with the term PBL.	
The teachers' understanding of the PjBL	Teachers were not familiar with PjBL	
The teachers' understanding of the assessment	The teachers in general understood the assessment aspects within Curriculum 2013	
	The teachers had not understood the details of assessment process.	

The obstacles in changing the teachers' understanding of the curriculum change was the teachers' negative stigma and the teachers' individual factors, such as that they still had not opened themselves toward the change and they still had low spirit of independent learning. Multiple massive

steps that the government had taken in socializing the curriculum had brought about positive impacts. However, in practice there was a fact that not all teachers had completely understood Curriculum 2013. The training program had not been able to embrace and to provide teachers with understanding. Overall, teachers' understanding of multiple learning methods or approaches that had been mandated by Curriculum 2013 was not sufficient. Teachers were familiar with these approaches but they did not understand the essence and the steps of teaching and learning activities these approaches.

2. Learning Implementation

The results of the study regarding the teachers' difficulty in implementing thematic teaching and learning activities are displayed in Table 2 as follows.

Table 2. Teachers' Difficulties in Thematic Teaching and Learning Implementation

Description	Cause	Strategy
The teachers' difficulty in implementing the thematic teaching and learning	The learning plan and preparation was relatively difficult.	1. It took creativity in order to perform inter-item association within one theme. 2. There should be an optimization toward the role of school principal as a supervisor. The school principal might control the learning implementation through a correction toward the learning sets and their implementation. The school principal might provide multiple educations toward the teachers through his or her role as a supervisor.
	The difficulties were responded by returning back to the partial learning process.	
The teachers' difficulty in implementing the scientific teaching and learning	It was difficult to implement the scientific learning path.	
	It was frequently occurred that the contexts had not been contextual.	
The teachers' difficulty in implementing the problem-based learning	The PBL model had been rarely implemented because it was considered difficult and complicated.	
	It was difficult to determine the appropriate problem base.	
	The teachers were still convenient with the teacher-centered approach.	
The teachers' difficulty in implementing the project-based learning	It was difficult to manage the time in the PjBL approach.	
	It was difficult to select the appropriate project.	
	The teachers were still convenient with the teachers-centered approach.	
The teachers' difficulty in exercising the HOTS	There were many teachers who had not understood the HOTS and its development.	
	The students had not been accustomed to the HOTS and its development.	

In the study, the researchers found that in the teaching and learning process and the scientific concept had not been totally implemented. Teachers were trapped into the scientific learning sequence that involved the process of 5M. Problem-based learning and project-based learning had also been less implemented because both approaches had been considered difficult and complicated. Therefore, most of the teachers still believed that it would be more convenient for them to implement the teacher-centered learning method. The challenges and the demands of the 21st century for developing the higher-order thinking skill (HOTS) capacity had not also appeared in the learning process. Teachers and students were equally unfamiliar with the development of HOTS. The difficulties here included the process implementation in accordance with the curriculum and the learning materials that had not developed the HOTS capacity.

3. Learning Facilities

The results of the study regarding the difficulties that elementary school teachers encountered in terms of learning facilities are displayed in Table 3 as follows.

Table 3. The Teachers' Difficulties in Terms of Learning Facilities

Description	Cause	Strategy
Book availability	There had been delays in the book distribution toward the schools.	1. The school directed the teachers and the students to download the books from the Internet. 2. The school suggested the teachers to design lesson plans according to the new curriculum independently, including the theme composition.
	The book quantity had not been balanced to the number of students.	
	The library quality had been less sufficient.	
Learning media/supporting display	The teachers rarely used learning media.	The teachers were demanded to be creative in providing the learning media independently
	The variation in terms of school facility had been high from one school to another.	
	The learning media availability had been limited.	

There is a problem in the distribution and quantity of books in relation to learning facilities. The limited learning media demanded teachers to be more creative; as a result, they provided these media by themselves. Learning facilities in the form of learning sources and media are very limited so that teachers are demanded to be more creative in order that the learning process can run well according to the curriculum's demand.

4. Assessment

The results of the study regarding the teachers' difficulty in implementing the assessment through thematic learning are displayed in Table 4 as follows.

Table 4. The Teachers' Difficulties in Terms of Assessment

Description	Cause	Strategy
Spiritual attitude assessment	The class size is very big	The score output was designed in two versions namely in description and in number
	The assessment frequency is high	
	There are no been similar learning results among the teachers.	
Social attitude assessment	The teachers cannot select and to implement the effective and efficient attitude assessment technique.	
Knowledge assessment	The determination of test item composition is difficult.	
	Teachers have difficulties especially with regards to the mapping of students' capacity.	
Skills assessment	It is difficult to design an assessment rubric.	
Should the assessment involve the HOTS?	The assessment does not reach the HOTS	
School report writing	The teachers have difficulties in creating the description.	

In general, the difficulties that in the researchers found in the assessment stage were the teachers' capacity in selecting the appropriate technique, the design of good instrument that achieved HOTS and the design of clear score description especially in the attitude assessment. Then, another obstacle that the researchers found in the skill assessment was the rubric design. Another difficulty that teachers encountered in the final process was that the teachers had not been accustomed to describing the scores into the descriptive statements of regarding the students' capacity clearly and briefly.

Discussion

1. Teachers' Understanding

One of the dynamics that can be seen in the process of curriculum change in Indonesia is the teachers' response. Several facts show that there are many teachers who show negative responses to the curriculum change. The root of such a problem is the teachers' unpreparedness for the change. As a result, there are many teachers who refuse to change their mindset in teaching and learning. Such a phenomenon is certainly in contrary to the statement that teachers should have sufficient capability in order to increase their students' learning achievement so that the learning process is successful and able to accommodate the students' needs (Martel, 2009). According to Kalelioğlu & Gülbahar (2014, p.248), in the 21st century an individual should have the capacity of critical thinking, problem solving and creative thinking.

Therefore, it is the government's duty to socialize the new curriculum. However, there are many teachers who admitted that they had not attained an in-depth understanding of Curriculum 2013. Such conditions become worse because training programs that have been conducted are still oriented toward theoretical matters. In addition to complaining of the problems of quality, teachers also complain of the short training period. The training materials cannot explain real situations that might possibly happen in the teaching and learning processes. Teachers should realize that training is a process of preliminary introduction and multiple processes toward understanding the curriculum should be conducted personally by each teacher. Chen (2012) states that teachers should have strong and powerful materials, they should realize ideas and themes that will be implemented in the teaching and learning processes and they should understand how well they teach concepts to their students. The reasons behind the low quality and quantity of training programs and the sufficient efforts to pursue in-depth understanding independently cause teachers to be unable to provide any explanation to their colleagues.

The demand of elementary school curriculum is to implement PBL and PjBL. In general, PBL is more familiar to the teachers in comparison to PjBL. Through in-depth investigation, the researchers found that the teachers, do not understand both models profoundly. Most teachers stated that the teaching and learning processes might be in accordance with the suggested models but they did not plan the model syntax. As a result, when they were asked about syntax the teachers were confused because they could not categorize to which model their teaching process belonged.

In order to facilitate the process of implementing Curriculum 2013, the government held mentoring programs that involved core schools and impacted schools. Core schools referred to the schools that are appointed as the center of information. The programs that have been implemented in order to support the implementation of Curriculum 2013 are called ON namely the mentoring of targeted teachers that would be conducted by the regency-level instructors, IN namely the discussion around multiple findings during the ON program and solutions.

2. Thematic Learning Implementation

Many problems that occur around the teachers' understanding leads to many problems in the teaching and learning implementation. The first problem is in the theme planning. Many teachers complained of the difficulty in combining multiple lessons into a single theme. The results of the study strengthened those of the previous ones by Finch, Frantz, Mooney & Aneke (1997), which found that teachers had difficulties in understanding and in implementing thematic curricula.

Besides of those multiple cases presented by teachers as an introduction rarely encourage the students to reason successfully in scientific approach. Unfortunately, reasoning has been a process that might be the students' gate to perform an in-depth understanding and teachers' identification of the students' thinking level. Then, both PBL and PjBL models have seldom been relatively implemented by the teachers. In general, teachers admitted that they often included appropriate problems in the PBL process. On the other hand, in relation to the PjBL, teachers' complaint is the difficulty in selecting the appropriate project and time management. Such problems were caused by

unpreparedness the teachers in the implementation process. The teachers had not completely gained an in-depth understanding of the model.

One of the reasons that most teachers stated within the process of adjusting themselves to the new curriculum was the demand for completing the learning materials. This situation shows that there has been a focus on the development of cognitive domain solely. It is very possible that the learning process which emphasizes the students' activeness might run very fast and even might encompass the extensive and intensive materials if the learning materials have been well-designed.

One of the skills that should be developed in Curriculum 2013 has been the Higher Order Thinking Skills (HOTS). The emphasis that the curriculum pursued was a response toward the demand of the century that encouraged the students not only to explain and to implement theories but also to solve problems through analysis-, evaluation- and creation-level thinking. However, the data found in the field showed that it had been rare that the elementary school teachers hardly understood the HOTS.

One of the strategies to improve teachers' performance is by exerting school principal's role. The data found in the field showed that an elementary school whose principal was attentive had good administration and more professional teachers. Such a principal might control the teaching and learning process by means of correcting the learning sets and their implementation. A school principal has a strategic role in correcting the suitability of the lesson plans and with curriculum and in providing multiple explanation that might be necessary for the teachers at the same time.

3. Learning Facilities

Facilities are other important factors within the implementation of teaching and learning processes. The existing facilities which are anticipated are the student's books and the teacher's books. However, the distribution of Curriculum 2013 books is not been well implemented; as a result, many delays have been often found within the book distribution to the schools. Another problem that occurs within the book distribution is the mismatch in the number of books and that of the students. Therefore, most schools implemented a policy that one book should be used by two students at the same table, the teachers and the students to download the book files from the Internet and the downloaded book files might be turned into a matter of guidance for the teaching and learning process. Unfortunately, the library facilities in most of elementary schools are limited. The alternative to this situation would be suggesting the teachers to design a teaching and learning process that will be in accordance to the new curriculum independently and this would include the theme design.

Within the teaching and learning process in the classroom, in general there should be multiple supporting media. Typically, elementary schools have the fundamental displayed tools such as ruler, arc, calipers, globe, and map or tennis ball. However, not many schools have other media such as geometrical build model, human skeleton model, animal digestive system model, computer and the Internet facility. In the terms of media use, in general the teachers adjusted themselves to the situation of their schools. Many teachers admitted that they rarely used the teaching and learning media due to the limited support provided by the school.

4. Assessment Implementation

The attitude assessment is the assessment that most teachers often complain about. For the attitude assessment, the teachers cannot design a good instrument from the formulation of the conceptual definition from the formulation of the operational definition to the formulation of indicators and test items. In general, the teachers directly view the instrument items without any appropriate stage; as a result, the process is perceived to be very difficult and the results of this process will be inclined to bias. The second problem related to assessment is the assessment process. Many teachers often complain the big class size and, as a consequence, the assessment process is very difficult to administer. The problem in cognitive assessment is the determination of test item construction in terms of both theme mastery and lesson mastery. For the remaining part, the teachers are relatively familiar and relatively understand the knowledge of assessment process.

The difficulty that the teachers encounter in the skills assessment in designing the assessment rubric. The description design that becomes the guidelines in assessment gradation is considered the most difficult process. The rubric that is not well designed causes the teachers to have difficulties in maintaining the assessment objectives. This result supports the previous research by Retnawati, Hadi, & Nugraha (2016) that teachers had difficulty in developing the instrument of attitude, formulating the indicators, and designing the assessment rubric.

The final stage within the assessment process is the school rapport card writing. Basically, the score in Curriculum 2013 contains the achievement of student's competency so that the students will focus on comparing not only their achievement to that of their peers but also their own achievement in order to master all competencies. The scores are displayed in a description of achievement and such a description is considered difficult by the teachers. The teachers are not been accustomed to writing such a description; as a result, this process had been complained by the teachers.

Conclusions

The greatest challenge in the curriculum process has been the teachers' negative stigma. Multiple massive efforts that have been taken by the government in socializing the new curriculum have provided positive impacts. However, the research found that many teachers have not completely understood Curriculum 2013. The reason is that these teachers are physically confused, and they are afraid and the teachers do not open themselves toward the change; as a consequence, the efforts to understand the new curriculum independently and collectively are not appeared in maximum. The teaching and learning process in accordance to the Curriculum 2013 has not been fully conducted due to the teachers' multiple difficulties. These difficulties include the process implementation according to the curriculum and the learning contents that have not developed the HOTS. The teaching facilities in the form of learning resources and learning media are limited; as a result, the teachers are demanded to be creative so that the teaching and learning process can be conducted well in accordance with the curriculum's demand. The problems that have been found in the assessment stage are the teachers' capacity in selecting the appropriate technique, in designing the good instrument and in designing a clear assessment description.

References

- Anthony, G. & Walshaw, M. (2009). *Effective pedagogy in mathematics*. Brussels: International Academy of Education.
- Ardianti, S. D., Prasetyo, A. P. B., & Susanti, R. (2014). Developing thematic inquiry-discovery module on metabolism for junior high school students. *International Conference on Mathematics, Science, and Education, ICMSE 2014*, Faculty of Mathematics and Natural Sciences Semarang State University.
- Bradbury, K. (2008). *The positive attributes of integrated thematic curriculum for primary grades*. La Verne, CA: EDUC 596, University of La Verne.
- Chen, Y. (2012). The effect of thematic video-based instruction on learning and motivation in e-learning. *International Journal of Physical Sciences*, 7 (6), 957–965.
- Darling-Hammond, L. (2010). *Evaluating teacher effectiveness: How teacher performance assessments can measure and improve teaching*. Washington, DC. Center for American Progress.

- Davies, M. & Shankar-Brown, R. (2011). A programmatic approach to teaming and thematic instruction. *North Carolina Middle School Association Journal*, 26 (1), 1-17.
- Finch, C. R., Frantz, N. R., Mooney, M. & Aneke, N. O. (1997). *Designing the Thematic Curriculum: an all aspects approach*. Berkeley, CA: National Center for Research in Vocational Education Graduate School of Education University of California.
- Harris, C. J. & Rooks, D. L. (2010). Managing inquiry-based science: challenges in enacting complex science instruction in elementary and middle school classrooms. *J Sci Teacher Educ*, 21, 227–240.
- John, Y. J. (2015). A “new” thematic, integrated curriculum for primary schools of Trinidad and Tobago: a paradigm shift. *International Journal of Higher Education*. 4(3), 172-187.
- Kalelioğlu, F. & Gülbahar, Y. (2014). The effect of instructional techniques on critical thinking and critical thinking dispositions in online discussion. *Educational Technology & Society*, 17(1), 248–258.
- Krey, D. M. (1994). *Operationalizing the thematic strands of social studies for young learners*. Madison, WI: National Council for the Social Studies, University of Wisconsin.
- Liu, M. C., & Wang, J. Y. (2010). Investigating knowledge integration in web-based thematic learning using concept mapping assessment. *Educational Technology & Society*, 13(2), 25–39.
- Martel, H. A. (2009). Effective strategies for general and special education teachers. *Senior Honors Theses*. Paper 210.
- Min, K. C., Rashid, A. M., & Nazri, M. I. (2012). Teachers’ understanding and practice towards thematic approach in teaching integrated living skills (ILS) in Malaysia. *International Journal of Humanities and Social Science*, Vol. 2 No. 23; December 2012, 273–281.
- Mirjalili, F., Jabbari, A. A., & Rezai, M. J. (2012). The effect of semantic and thematic clustering of words on Iranians Vocabulary learning. *American International Journal of Contemporary Research*, Vol. 2 No. 2; February 2012, 214 – 222.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223-231.
- Retnawati, H., Hadi, S., & Nugraha, A. C. (2016). Vocational high school teachers’ difficulties in implementing the assessment in Curriculum 2013 in Yogyakarta Province of Indonesia. *International Journal of Instruction*, 9(1), 33-48.
- Rosenshine, B. (2012). Principles of instruction: research-based strategies that all teachers should know. *American Educator*. Spring 2012.

<i>Heri Retnawati</i>	Dr., lecturer & researcher, Yogyakarta State University, Yogyakarta, Indonesia. E-mail: heri_retnawati@uny.ac.id Website: https://www.scopus.com/authid/detail.uri?authorId=56896145400 https://scholar.google.co.id/citations?user=7CzPTYIAAAAJ&hl=en
<i>Sudji Munadi</i>	Prof., lecturer & researcher, Yogyakarta State University, Yogyakarta, Indonesia. E-mail: sudji.munadi@uny.ac.id Website: https://scholar.google.co.id/citations?user=JDBOGG8AAAAJ&hl=en
<i>Janu Arlinwibowo</i>	M. Pd., alumnae, Yogyakarta State University, Yogyakarta, Indonesia. E-mail: januarlinwibowo@windowslive.com Website: https://scholar.google.co.id/citations?user=0tVmCcssAAAAJ&hl=en
<i>Nidya Ferry Wulandari</i>	M. Pd., alumnae, Yogyakarta State University, Yogyakarta, Indonesia. E-mail: nidyaferri@gmail.com Website: https://scholar.google.co.id/citations?user=TCH-r5AAAAAJ&hl=en