Curriculum changes in Indonesia: Teacher constraints and students of prospective teachers' readiness in the implementation of thematic learning at low grade primary school

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Abstract: This study aimed at (1) describing the teachers' constraints in thematic learning at low level elementary school, (2) describing the readiness of prospective elementary school teachers in the implementation of thematic learning. The research used a qualitative design in which the source of the data were 60 elementary school teachers in Bali Province and 305 students of semester VI majoring in elementary school teacher education at Universitas Pendidikan Ganesha. The results of the research indicated that (1) the teachers constraints were the lack understanding on the nature and the objectives of thematic learning, the lack of supporting learning factors such as facilities and infrastructure, difficulties in enhancing teaching material and connecting one material to another, difficulties in designing evaluation instruments and how to apply them. (2) The students of prospective primary school teacher felt ready in implementing thematic learning because they already have adequate understanding about thematic learning.

Keywords: Prospective teachers, thematic learning, low grade primary school

INTRODUCTION

Curriculum changes are common, such as in New Zealand (Baker, 2002), Philippines (Mendoza and Nakayama, 2003), Hong Kong (Chan, 2010), China (Lee, 2017). In Indonesia, the paradigm shift of learning from teacher-centered learning to student-centered learning demands changes to the learning that has been done. Lessons learned so far have been done merely to meet the formal demands of school academics (Adimassana, 2000). The curriculum that used to be full of content and has made knowledge is only limited to memorization have to be left behind. Moreover, in nowadays, the world is growing rapidly and competition is happening everywhere. Knowledge that is only memorization (minimal understanding) certainly cannot be used as 'weapon' to face the competition. Listya (2006) and Purwastuti (2014) said that giving large amount of information that is only a memorization is not in line with the real nature of education, that is, as a tool of making a human to be human. The launch of the 2013 curriculum in Indonesia marked the implementation of thematic learning in primary schools. Paradigm shift in Indonesia is also in line with the findings of Gultekin's research (2014) on trends in primary education programs in the world and in Turkey.

The Decree of Permendiknas Number 22 Year 2006 which states that the approach used in the learning in low grade primary schools (1st, 2nd, 3rd class) is thematic learning, it brings the hope of improving the quality of learning that has been going on. Thematic learning is implicit in the 2013 curriculum. Thematic learning is a blended learning that uses themes to link some subjects so as to provide meaningful experiences to students. Thematic learning emphasizes on selecting a specific theme that is appropriate to the subject matter, to teach one or several concepts that incorporate various information (Trianto, 2011).

This thematic method integrates attitudes, skills and knowledge in the learning process. In addition, it is also a theme integrating the various related basic concepts. Students do not learn basic concepts partially, thus it gives the students a full meaning as reflected in the various themes (Yorks & Follo, 1993; Slekar, et al., 2003; Rusman, 2012; Prastowo, 2013). Thematic learning is a learning approach that integrates the various competencies of the various subjects

in various themes. This learning approach is used for all classes in primary schools. This thematic learning involves all subject competencies: PPKn Pendidikan Pancasila dan Kewarganegaraan (PPKn) or Pancasila and Citizenship Education, Bahasa Indonesia, Science or Ilmu Pengetahuan Alam (IPA), Social Studies or Ilmu Pengetahuan Sosial (IPS), Mathematics, Physical Education, Cultural Arts and Workshops except Religion and Character Education. Competencies of Science in class 1st – 3rd are integrated with Indonesian and Mathematics, while for Social Studies is integrated into Indonesian, PPKn and Mathematics.

Broadhead (2001), Suryosubroto (2009), and Narti, et al. (2016) states that thematic learning is an attempt to integrate knowledge, skills, values or attitudes of learning, as well as creative thinking by using themes. Thematic learning makes it easier for students to focus on the particular theme being studied. Thematic learning emphasizes on the involvement of students in the process of learning actively in the learning process, so that students can gain direct experience and are trained to be able to find their own knowledge learned. Through direct experience students will understand the concepts they learn and relate them to other concepts that they have already understood. Thematic learning emphasizes on the application of the concept of learning by doing (Prastowo, 2013). Therefore, teachers need to pack or design a learning experience that will affect the meaningfulness of student learning.

Learning experience that shows the connection of conceptual elements makes the learning process more effective. The conceptual link between the subjects being studied will form the scheme, as a consequence the students will gain wholeness and unity of knowledge. In addition, with the application of thematic learning in elementary school will greatly help the students, because according to the stages of development of students who still see everything as a whole (Rusman, 2012). Thematic learning aimed at helping students in gaining experience through holistic learning. It turned out that in the implementation some obstacles were experienced by low grade elementary school teachers in Jembrana sub-district. Confusion is experienced by teachers when they would develop thematic-learning- based media. When the lesson planning cannot be done well, then the implementation and evaluation of learning also cannot certainly run well. The research finding from Sukini (2012) also shows the same situation that there are problems in the planning, implementation, and evaluation of thematic learning.

Irene (2013) also pointed out that not all lesson plans have been made using the thematic lesson plan models yet. At the implementation stage of thematic learning, low-class learning activities mostly have not used thematic learning model, it was seen in the material delivery which was still separated. At the assessment stage, it has not used thematic assessment model. Assessment of the learning outcomes implemented by all teachers was in the form of written test that was still carried out separately, according to the subject. Research Hikmah (2012) indicates that teachers experience obstacles in the implementation of thematic learning in the form of (a) limited school facilities and infrastructure, (b) teacher education background is still low, (c) limited knowledge of teachers on the application of thematic learning models, d) limited use models and learning media, and (e) the difficulty of changing the way teachers teach.

In other countries, researches on thematic learning has also been conducted by Broadhead (2001) and Antinyelken (2010). The Broadhead's research (2001) describes the results of interviews with those who are responsible for developing the curriculum and how policies are taken based on ideological proposals as the effort to develop an effective thematic curriculum. While Antinyelken's (2010) study found that curriculum change in Uganda with the introduction of a thematic curriculum was welcomed enthusiastically by most teachers. However, its implementation is still hindered by some constraints. Those constraints include crowded classrooms, lack of teaching aids, and insufficient number of textbooks, teachers' low motivation, and limited training on the implementation of thematic curriculum. Previous studies have attempted to illustrate teacher constraints in the implementation of thematic learning in low class in their respective regions. This study also examines constraints encountered by teachers in the implementation of thematic learning but certainly in different areas with the previous research that is in Bali Province. In addition, while the previous researches focus only on the constraints experienced by teachers, this study will also examine the readiness of the students of prospective elementary school teachers in the implementation of thematic learning. This

research is important to measure the success of preparing prospective primary school teacher and more importantly can be a feedback for related institutions in improving the quality of graduates.

METHOD

Type of the Research

The research design chosen to achieve the research objectives is a descriptive research design. This design was chosen because it is in accordance with the characteristics of the research problem. The selection of this design is also in accordance with the nature of descriptive research that describes a phenomenon as it is by examining it regularly, strictly prioritizing objectivity, and carried out carefully. Descriptive research is a research method aimed at describing the phenomena that exist, which took place at the present time or in the past (Furchan, 2004).

Data and Data Sources

This research data in the form of information or records regarding (1) the constraints faced by elementary school teachers in the implementation of thematic learning in low classes and (2) the readiness of prospective elementary school teacher candidates for Ganesha University of Education towards the implementation of thematic learning in low classes. The source of data in this study were 60 elementary school low-grade elementary school teachers in Bali Province and prospective elementary school teacher students. Teacher selection is done randomly. Meanwhile, the selected students were the VI semester students of the Elementary School Teacher Education of the Ganesha University of Education as many as 305 people. Ganesha University of Education students were chosen because this college is the largest state tertiary institution producing teacher candidates in Bali.

Data Collection Technique

Data collection methods used were interview and questionnaire methods. The interview method is used to find out the obstacles faced by teachers related to curriculum changes that occur. The questionnaire method is used to collect data on the readiness of elementary school teacher candidates in implementing the implemented curriculum. The interview instrument was developed from four indicators, namely (1) teachers' understanding of thematic learning, (2) supporting completeness, (3) difficulties experienced, and (4) results achievement. Each indicator is developed into a question. While the readiness questionnaire for prospective teachers was developed from three indicators, namely (1) the understanding of prospective teachers about thematic learning, (2) readiness to implement, and (3) constraints and efforts. Each indicator is manifested in a question.

Data Analysis

Data processing of the results of interviews and questionnaires was done qualitatively and quantitatively. Data from interviews and questionnaires in the form of qualitative description data responses of teachers to the questions asked and also in the form of quantitative data categories of each response given.

Among these data processing is through three stages of the flow model, namely data reduction, data presentation, and drawing conclusions / data verification. According to Miles & Huberman (1992) these three activities flow simultaneously. Data reduction is defined as the process of selecting, focusing on simplifying, abstracting, and transforming rough data that arises from written records in the field. Data reduction continues throughout the study. Data reduction is part of the analysis. Data reduction is a form of analysis that sharpens, classifies, directs, disposes of unnecessary, and organizes data in such a way that the final conclusions can be drawn and verified.

At the stage of presenting data, a presentation is made by arranging information to give the possibility of drawing conclusions. Research data that has been reduced in the previous process is displayed according to the similarity of the answers or responses given. Therefore, in the data presentation section, the answers from the research subjects are not displayed thoroughly. The conclusions of the answers as a whole are displayed with pictures by classifying the answers given in several categories.

The next step is the stage of drawing conclusions based on findings and verifying data. This stage is the stage of drawing conclusions from all data that has been obtained as a result of research. Conclusion or verification is an attempt to find or understand the meaning of the data collected. In accordance with the opinion of Miles and Huberman (1992), the analysis process is not one-time, but interactive, back and forth between the activities of reduction, presentation and drawing conclusions or verification during the study period. After verifying it can be concluded based on the results of research presented in the form of narration.

RESULTS

1. Constraints in Thematic Learning

From the research results could be found some constraints that were experienced by the teachers in the implementation of thematic learning in low class. First, many teachers did not understand the nature and objectives of thematic learning. It can be seen from the interview with the question "Do you understand the nature and purpose of thematic learning?" Some of the teachers answered to the question are as follows.

Data 1

Teacher I   : I have tried many times to understand, but not understand yet.
Teacher II   : I have not really understand
Teacher III   : The main goal is simplification. So the students can learn at once.
Teacher IV   : not so understand
Teacher V   : do not understand
Teacher VI   : Understood. To make the learning process more effective
Teacher VII   : litle bit understood.

Data on the teacher's understanding of the nature and objectives of the thematic learning in full from some of the answers shown above can be seen in Figure 1 below.
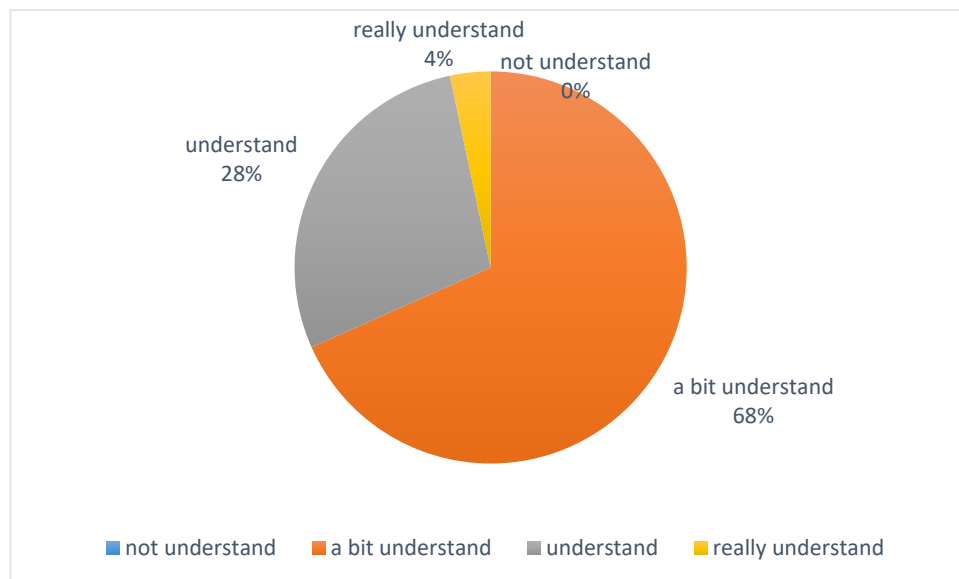

FIGURE 1. *Teacher's understanding of the nature and objectives of thematic learning*

Figure 1 shows that there were no teachers (0%) who stated that they did not understand the nature and purpose of thematic learning, 68% stated that they were slightly unfamiliar, 28% people expressed their understanding, and 4% stated that they understood very well the nature and purpose of learning. So, most teachers do not understand the nature and purpose of thematic learning.

Data 2

It concerns with the question "Do you think that the supporting facilities, such as facilities, curriculum, and manpower have supported in the implementation of thematic learning?" The teacher's quote on the question is as follows.

Teacher I : Suggestions and infrastructure have not been supported. If in terms of manpower, it seems we need more training.

Teacher II : The curriculum is already there and there is a guidebook. Facilities and infrastructure need to be improved. Meanwhile, if in terms of teachers, it was ready, just maybe take the maximum.

Teacher III : Lack of facilities and infrastructure, the number of students is also quite a lot in one group study. The others have been able to apply.

Teacher IV : it is not ready yet. Lack of facilities and infrastructure meanwhile the number of students is overwhelming.

Teacher V : The curriculum is ready, but the facilities and infrastructure are not ready yet. And the teachers need to be trained.

Teacher VI : Facilities and infrastructure are incomplete. The others I think can run smoothly if there is good facilities and infrastructure.

Teacher VII : the teacher has tried and I think it is getting ready. Curriculum is also ready, but the facilities and infrastuctures are not ready yet.

More clearly, the support of supporting facilities in the implementation of thematic learning according to the teacher is as follows.
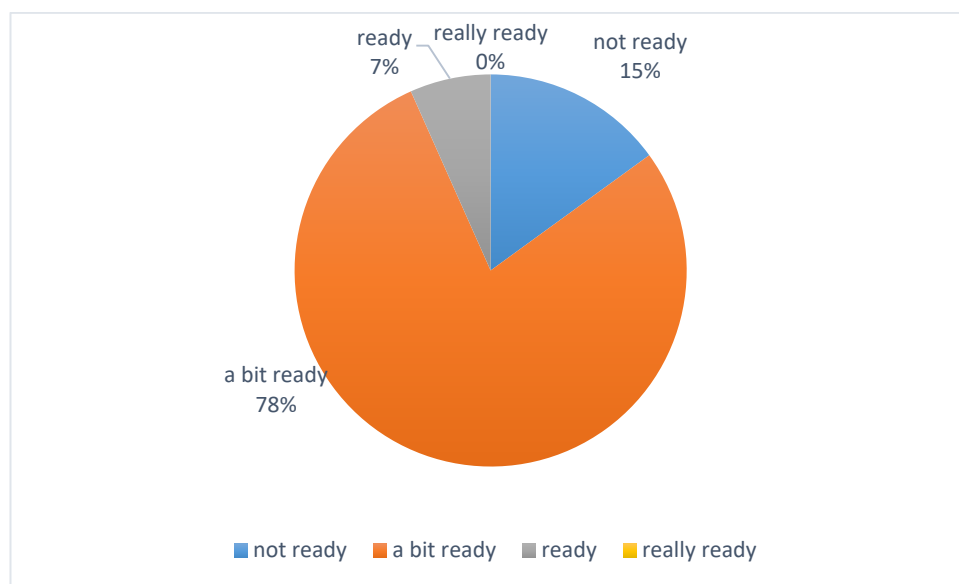

FIGURE 2. *Supporting facilities supporting thematic learning implementation*

Figure 2 shows that most, namely 78% of teachers considered that the supporting facilities were sufficiently prepared, while 15% stated the supporting facilities were not ready. As many as 7% of teachers rated that everything was ready and not the teacher (0%) who stated that the supporting facilities were really ready. Of the three aspects of supporting facilities, namely infrastructure, curriculum and workforce, only the curriculum factor is felt to be ready to be implemented.

Data 3

The third question asked to know the obstacles faced by teachers in the implementation of thematic learning is "What difficulties are faced in the implementation process of thematic learning in low class?" The teacher's answer can be seen as follow:

Teacher I : It is difficult when planning. Although the books are available, it is difficult to make a lesson plan.

Teacher II : Difficult and confuse to unite. Media is also difficult to unite all the lessons.
Teacher III : It is difficult to make a lesson plan. Combining learning is difficult. Because it is difficult to plan and the implementation of learning is also difficult. Sometimes, the teacher feel confuse in the middle of the process.
Teacher IV : With a large number of students and complicated evaluations, measurements of student outcomes and activities cannot be maximized
Teacher V : It is difficult to collect materials and create media that represents combined subjects. A lot of things should be prepared.
Teacher VI : The evaluation is overwhelming and hard to implement.
Teacher VII : Making the evaluation question is very difficult.

If grouped into the stages of preparation, implementation and evaluation of learning, the difficulties experienced by the teacher are shown in Figure 3.
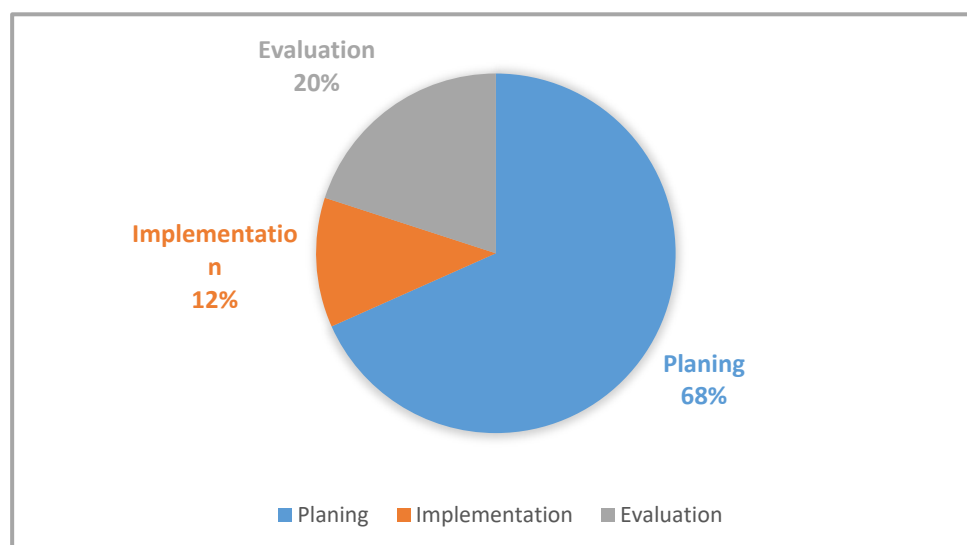

FIGURE 3. *Teacher difficulties*

Figure 3 shows that when grouped into the preparation, implementation, and evaluation stages, the preparation phase is most felt to be difficult for the teacher. It is recognized that when successfully preparing for preparation, the implementation and evaluation stages can be carried out even though difficulties will also be encountered.

Data 4
The fourth question asked to the teacher was about student activity and learning outcomes. The question was "Is the implementation of thematic learning able to increase student activity and learning outcomes so far?" The teacher's answers are as follows.
Teacher I : Some are increased and some are not. It shows the same result with previous learning.
Teacher II : I feel there has been no change. Even sometimes the students look confused because they are not accustomed
Teacher III : Students look enthusiastic. If compared with previous learning, activity and learning outcomes is slightly increased.
Teacher IV : Generally, it is still as usual.
Teacher V : There has been no increase in activity and learning outcomes.
Teacher VI : There is an increase in activity and learning outcomes although it is not maximal yet.
Teacher VII : Some students show increasing, but others are not.

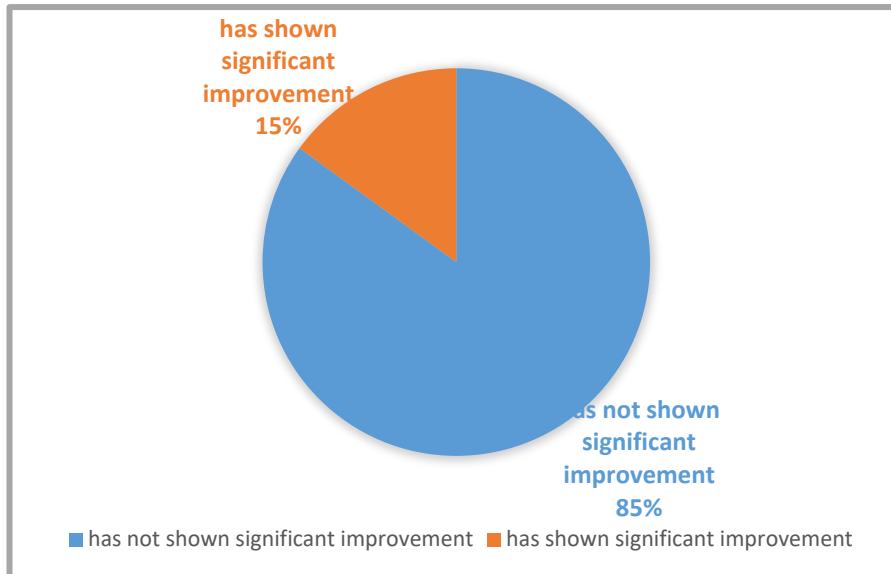The grouping of answers to this question can also be seen in the following figure.

FIGURE 4. *Changes after implementing thematic learning*

Figure 4 shows that the majority of teachers, which is 85%, have not felt any changes in the increase in activities and learning outcomes in the implementation of thematic learning. The still low understanding of previous findings seems to correlate with these findings.

2. The Readiness of Elementary School Teacher Prospective for the Implementation of Thematic Learning in Lower Grade

There are three questions posed to students to find out their readiness in the implementation of thematic learning. The first question is related to how they understand of thematic learning. The answer is that most of them claim to understand how the implementation of thematic learning is carried out. This can be seen in Figure 5.
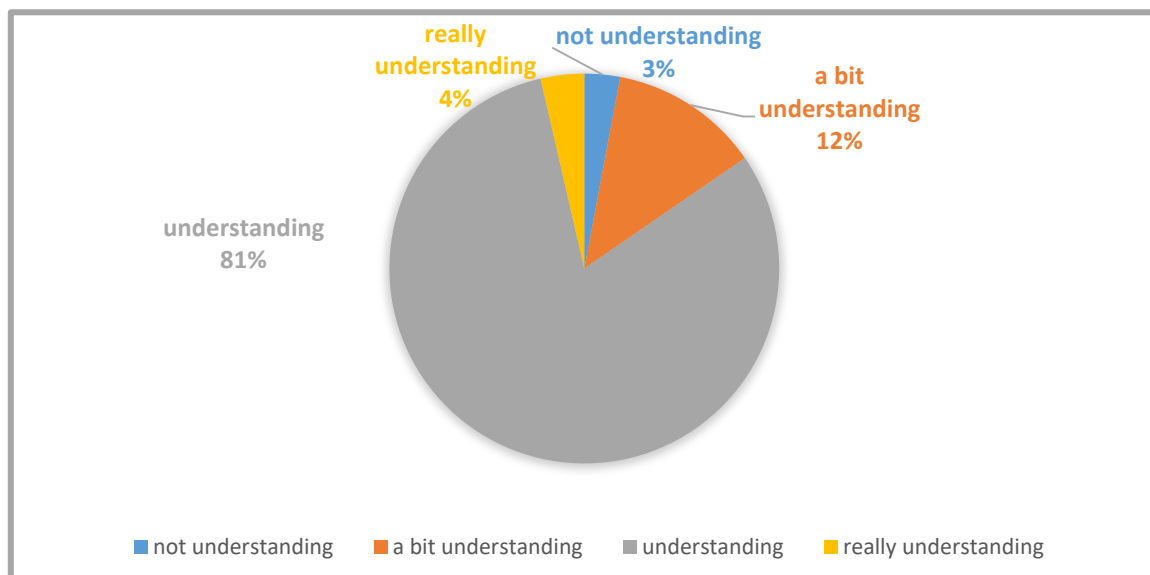

FIGURE 5. *Primary school teacher prospective understanding on thematic learning*

The second question relates to students' readiness in implementing thematic learning in class. From the answers received, most of them admitted they were ready to implement thematic learning. The third question raised is related to the obstacles faced and the efforts made. The results showed a number of obstacles that made it difficult for students, such as

difficulty developing material, assessing, and so on. Prospective teachers recognize that various efforts have been made to overcome various existing obstacles, such as by reading books and articles on the internet, asking questions to friends, experts, or lecturers.

DISCUSSION and CONCLUSION

1. Constraints in Thematic Learning

From Data 1, it can be seen that the teachers' lack of understanding toward the nature and purpose of learning will certainly have an impact to the learning equipments that were prepared. Learning will not achieve the goal if the teachers do not understand the nature and objectives of thematic learning. The results of this study are in line with the results of research by Hikmah (2012), Ünsal (2013), and Hasan (2014). The lack of understanding towards newly implemented learning is a natural condition. What needs to be done is to encourage teachers' skills in implementing new learning method. Harju & Niemi (2016) more specifically did research to some new teachers to find a similar situation that support is needed for the teachers to understand a situation. Muryaningsih and Mustadi (2015) also showed the same situation, that teachers have not understood so that they have not been able to arrange lessons based on thematic learning as mandated by the curriculum 2013. According to them, this lack of capacity is due to lack of training which is followed by teachers related to thematic learning.

Teachers' lack understanding of thematic learning as the findings of this research seems understandable. This is in line with Alawiyah's (2014) opinion that it is not an easy matter to prepare ideal teachers such as the hope of the 2013 curriculum in a short period of time, especially to change the teacher's mindset from those who only serve to teach while in the curriculum 2013 teachers should be able to direct students to active, productive, creative, and critical thinking. The 2013 curriculum brings Fundamental changes in the role of teachers in learning. Administratively, the central government has set up learning implementation tools that teachers no longer need to prepare. However, teachers are required to play an active role as motivators and facilitators of learning so that students will become learning centers. This becomes an obstacle for teachers because not all of the teachers have the competence. In addition, the teachers' readiness is required to implement the curriculum in a relatively short time while the device has not been prepared carefully.

The result of the interview in Data 2 showed that from the aspect of manpower, there were teachers who felt ready and some were not ready yet in implementing thematic learning. This readiness and unreadiness are certainly related to the teacher's understanding of the thematic learning itself. Meanwhile, from the aspect of the curriculum is perceived by the teacher that the curriculum with thematic learning is ready to be applied; it's just another factor that has not been maximally prepared.

From the completeness of supporting facilities, which seems not ready yet is the availability of infrastructure facilities. The findings of this study are in line with Hikmah's research (2014) which found that one of the obstacles in thematic learning is the limited infrastructure. Mulyasa (2012) defined educational tools as tools and equipments that are directly used and support the educational process, especially learning, teaching, such as buildings, classrooms, desks, and teaching tools and media. It cannot be denied that in the education process, the quality of education is also supported by the facilities and infrastructure that become the school standard or related educational institution. Infrastructure greatly affects the ability of students in learning. This shows that the role of facilities and infrastructure is very important in supporting the quality of student learning. For example, schools located in the cities that already have computer lab facilities, then students can directly learn the computer while schools in the villages that do not have that facility do not know how to use computers unless they take courses outside school.

In conducting the learning process, the tools are surely needed by the teacher which can support the teachers' performance so that the learning process can run attractively. With the support of adequate learning facilities, teachers not only transfer the material orally, but also by

writing and demonstration in accordance with the facilities that have been prepared by the teacher. In relation with teachers' ability in organizing learning activities, the support of learning tools is very important. The more complete and adequate means of learning owned by a school will facilitate teachers in performing their duties as education personnel. Learning facilities should be developed in order to support the teaching and learning process. Thus, it can be said that the success of the learning process depends on the various factors of the learning builder.

Teachers as educators are required to be able to hold interesting and meaningful learning so that the achievement can be in accordance with the target set. Each subject taught has a different character from the other lessons. Thus, each subject also requires different learning tools. With the application of thematic learning that integrates the subjects into a whole, and then it takes the form of learning media in accordance with the characteristics of the integration of subjects conducted. From the results of the interview, it is known that the media in the implementation of thematic learning is a problem that has not be able to overcome until now. In fact, according to Levis & Lentz (1982) the media has four important functions in learning, namely the function (1) attention, (2) affection, (3) cognitive, and (4) compensators.

From these answers in Data 3 it can be concluded that the difficulties faced by the teachers in the process of implementation of thematic learning mostly lies in the process of learning planning. The teachers find some difficulties in enriching learning materials and connecting learning materials to one another. Hasan's (2014) also found the same thing related to teacher difficulties in enriching learning materials. Teachers are an important factor in learning, especially in low classes. In the context of education, teachers have a great and strategic role, because the teachers who stand in the front row in the implementation of education, dealing directly with learners to transform science and technology as well as educate with noble values through guidance and exemplary.

In this role the teachers must have diversity of knowledge, teachership skills, creative, innovative and so forth. Therefore, the teacher's difficulty in enriching materials and connecting learning materials need to be overcome as quickly as possible. In addition to improve knowledge through reading references, teachers also need to attend trainings related to thematic learning.

Another difficulty faced by the teachers is in making evaluation instruments and assessing the students in quite large number. The difficulty of making an evaluation instrument seems to be due to a low level of understanding and the ability of teachers to integrate learning materials. The results of this study are in line with one of Rosadi (2009), Munasik (2014), Retnawati et al. (2017) research results that the evaluation activities undertaken by teachers have not shown an integrated assessment. Meanwhile, regarding the number of students who are quite a lot in a group study is a problem that is quite difficult to overcome. Most of the classes are plump (over 32 people and less than 40 people).

The results of interviews in Data 4 showed that from the activities and results of student learning, thematic learning in general had not been able to increase activity and learning outcomes. Only a few students seemed able to increase their activities and learning outcomes. There was an increasing in learning outcomes on the one hand and the opposite situation on the other hand in line with Alawiyah (2014) research resulted that the teachers who had attended training and successfully implemented the 2013 curriculum in learning, the quality of learning, especially with the changing teaching atmosphere that were more active, creative, and fun, could be improved. However, this success did not occur in all thematic lessons applied by the teacher.

The teachers' understanding who had limited infrastructures that are not yet maximally available, and evaluation tools that had not been prepared according to thematic learning expectations, seemed to be the underlying factors that had not achieved the expected learning objectives. In addition, according to Alawiyah (2014) this situation was due to some shortcomings in the intermediate training process, such as the time allocation of the training is too short, and more training methods focused on lectures, theories, and the competence of the instructor itself. In fact, the process of preparing teachers through training should be emphasized on improving the quality of teachers, and this should be supported by training quality as well. It should be improved so that the training was not merely a formality activity.

2. The Readiness of Elementary School Teacher Prospective for the Implementation of Thematic Learning in Lower Grade

Primary school teacher education is closely related to primary school. An elementary school teacher is also expected to have a patient and loving nature because the teacher is facing a young child. Primary school students are generally about six to twelve years old. It is important for every prospective teacher to have readiness before running his profession. Readiness is the overall state of a person who makes it ready to respond in some way to the situation (Slameto, 2003).

From Figure 5, it can be seen that the prospective teacher who said that they did not understand were as many as 9 (3%) people, a bit understand were as many as 38 (12%) people, understand were as many as 247 (81%) people, and really understand were as many as 11 (4%) people. It can be said that prospective students in terms of understanding had been ready to implement thematic lessons in low class. Similar findings were also seen in the results of research Sulistari, & Madyaningrum (2015) related to the readiness of prospective teachers who showed the direction of high readiness. The readiness of prospective teachers for development of the times is needed to be able to become a professional teacher. Work skills and expertise and extensive insight are two of the few professional job title that must be owned. Understanding of learning is important because teacher competence is a major factor affecting student learning (Peklaj, 2015). All of the efforts to improve education base on the teacher and the quality of her work at school.

The results of this study differed from those of Antinyelken (2010) who found that pre-service teacher education had not provided adequate support to teachers in Uganda for the development of lower basic key teaching skills. Colleges should be able to produce outcome who are ready in the workfield. In Education Institute of Education Personnel, as in Ganesha University of Education, preparation of prospective teachers was done through a series of learning activities in the form of theory and practice. According to Kwartolo (2005) the activity of effective learning is micro teaching. By learning in micro teaching, a prospective teacher gets training into a teacher. The micro teaching course at Universitas Pendidikan Ganesha appeared in the sixth semester. In the seventh semester, students do teaching practice in partner schools. The result of Mardiyono's research (2006) showed that in the preparation of teacher candidates can be done through the practice of integrated field experience. The practice of integrated field experience is carried out by integrating teaching practice of PPL (Program Pengalaman Lapangan or Field Introduction Program) conducted in partner schools with KKN (Kuliah Kerja Nyata or Real Working Lecture) which is a practice done in the community.

According to Mardiyono (2006) PPL activities provided more readiness for prospective teachers to "stand" in front of the classroom and other activities for skills improvement in school administration and management. In fact, the success of education, professionalism of teachers and prospective teachers, are not only determined by the "skill" of teachers in managing learning in front of the class and administration skills and school management, but also other factors in accordance with the 4 teacher competencies. Therefore, it is necessary to integrate PPL and KKN programs to prepare prospective teachers to have competence in the 4 areas of expected competence, namely pedagogical, personal, professional, social competence.

In addition to micro teaching, efforts that can also be done in preparing prospective teachers is the MEI strategy that includes: 1) Modeling, 2) Engaging, and 3) Integrating (Fadllan, 2010). Modeling is the part where the lecturer becomes the model in the learning directly and the student can observe it which in turn will imitate the teaching style of the lecturer. In modeling, students can get two things simultaneously, the lecture material is taught and how to manage the learning. Modeling in learning is the first phase in an effort to improve the skills of prospective teachers in addition to the discussion phase, enrichment phase, and peer learning phase (Siahaan and Liliasari, 2010).

The next MEI strategy is engaging. In this stage, in order to realize the profile of students as teacher candidates who have pedagogic competence, especially in applying and managing learning, a lecturer is required to involve the students in active learning (engaging). Student

involvement in college learning activities is different from student involvement at the elementary and secondary levels. At the student level, more demanding is the exploration of higher-order thinking skills. Furthermore, in the integrating stage, lecturers are expected to integrate active learning in each course so as to create meaningful learning for learners.

The second outcome of the study was that primary school students were ready to apply thematic learning. Hesitation was felt by some students because of the inadequate understanding of concepts about thematic learning. The confidence and optimism shown by the prospective students by feeling ready to implement thematic learning was an invaluable principal. Ubaedy (2006) stated that confidence and optimism are important behaviors in achieving success. Belief in success is a key point to be confident, although many resources have been spent, but all of course with the right calculation and analysis, success will undoubtedly be achieved.

Besides producing outcomes who competent in terms of intellectual and skill, the college responsibility is to prepare students with character (Danasasmita, 2010). With character of education, students are expected to have readiness in resolving conflicts that arise in the implementation of responsibilities as a teacher. This is in line with Tilaar (1999) and Supriadi (1999) who thought about the profile of professional teachers in the 21st century, which has a mature and growing personality, mastered science and technology adequately, has the skills to generate interest and potential, and develop profession on an ongoing basis. It is increasingly clear that education in universities is demanded not only on intellectual development such as Advice from Quinland (2016).

Competence-based college education should refer to the integration of knowledge, skills, attitudes and interactivity as a result of expected learning (Nissilä, Karjalainen, Koukkari, & Kepanen, 2015). It makes use of lifelong learning and lifelike tasks in realistic settings and requires the cooperation of teachers. Murtiningsih, et al. (2014) explains that some aspects or domains contained in the concept of competence form the readiness to become teachers as follows: 1) Knowledge (knowledge), namely awareness in the field of cognitive; 2) Understanding (understanding), ie the cognitive and affective depths owned by individuals; 3) The ability (skill), that is something that is owned by the individual to perform the task or work assigned to him; 4) Values, is a standard of behavior that has been believed and psychologically integrated into a person; 5) Attitude (attitude), i.e. feeling (happy-not happy, likes-dislike) or a reaction to a stimulus coming from outside; And 6) Interest, is the tendency of a person to do an action. The integration of aspect is needed to be developed in college.

The third result was related to the difficulties experienced by the prospective elementary school teachers in thematic learning, namely the difficulty in developing the learning materials, difficult to accommodate the learning materials in one theme, it was difficult to make an assessment instrument capable of accommodating the integrated subjects. These results indicated that more concepts were needed to understand the concept of depth to prospective primary school teachers about thematic learning. Understanding the concept has also been duly supported by the provision of practices, whether in planning, implementing, or in conducting evaluations in thematic learning. The importance of direct experience of the learning process has been studied by Kolb (1984) and Wallace (1994) (in Yudi, 2011). Kolb said that adult learning would be more effective if the learner was more directly involved than just passively receiving from the teacher. The efforts was made by primary school teacher candidates to overcome the difficulties that exist was to search through the internet, books, and asked the lecturer. Reading textbooks used by students also needs to be done to find out and explore about thematic learning. Like the thematic books from Wuryani (2018) with character education. Reading articles related to how learning is carried out, such as the results of the research of Çakmak (2016), Balyer (2019), and Türkoğlu (2019) or other research findings are also needed. This way should be done as the responsibility of academic and professions of primary school teacher candidates. Students seemed to have realized that the readiness of a person in becoming a professional teacher was determined by ability in mastering his field, interests, talents, alignment with the goals to be achieved and attitudes toward the field of his profession.

From the results and discussion that has been done, it can be concluded that (1) Many teachers have not understood the nature and objectives of thematic learning. The available facilities and infrastructure were still limited with a large number of students in one study group. The curriculum was ready to be implemented, but there were some teachers who were not ready to implement thematic lessons. They faced any difficulties in in enriching learning materials, connecting learning materials to one another, and creating media that can represent all the subjects that are integrated as well as difficulty in developing assessment instruments. Implementation of thematic learning had not been able to increase activity and student learning outcomes significantly. (2) Most of the prospective elementary school teachers said they understood the thematic learning and felt confident and optimistic to apply thematic learning in the learning process. The difficulty was experienced by students of primary school teachers in developing learning materials. They felt difficult to accommodate learning materials in one theme, it is difficult to make an assessment instrument capable of accommodating the integrated subjects. Prospective teachers claim to have made several attempts to overcome the difficulties encountered, such as by searching through the internet, books, and asking friends, experts, or lecturers.

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