

Student Perspectives in the Implementation of Learning Based on Lesson Study at Madrasah Tsanawiyah Negeri 2 Mataram

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Abstract: Has been done research which aims to implementation of lesson study in Madrasah Tsanawiyah Negeri (MTsN) 2 Mataram. This activity involved 6 graduate students as a model teacher for 3 months. Each student has the opportunity to practice as a model teacher twice and 10 times as an observer. The documents analyzed consisted of lesson plan, observation sheets, and exposure to observational data shown that (1) students have been good enough in implementation of learning based on lesson study; (2) student's abilities on making a lesson plan have improved; (3) students explained the subject material systematically; and (4) graduate student need to interpret the principle of collaboration in lesson study better, which is collaboration is not only related to completing collaborative learning activities but also value the concept of mutual learning (no one left behind). Based on this research, the use of lesson study can improve the professionalism of teachers in the management classroom and the greater teachers of collaboration in the lesson plan and finding creative solutions in teaching problems.

Keywords: *lesson study, collaborative, perspective*

INTRODUCTION

Lesson study is a model of teacher education through collaborative and continuous learning assessment based on the principles of collegiality and mutual learning to build the learning community (Hendayana, 2006; Cajkler et al., 2015; Kho-Yar, 2018). Jugyokenkyu, an original name of the pattern in improving the quality of teaching and learning is adapted from Japan that contains a philosophy related to the study of learning activity (Saito et al., 2006; Susilo, 2011).

Assessment of learning activity that continuously carried out is expected to improve the quality of learning (Perry et al., 2009). Learning study using lesson study patterns provides an opportunity for all members to share ideas, provide input, formulate strategies and best learning practices and implement the result of a study that has been conducted, and learn from the practice.

Some research results show lesson study that is implemented in learning activity can bring real experiences of collaborating with colleagues (Lenski & Caskey, 2009; Dutger et al., 2012), facilitating teachers to explore real challenge in learning they have experienced in class (Rejeki et al., 2018; Copriady, 2013). This is what makes a lesson study possesses great influence in improving the quality of learning, increasing teacher professionalism, also build the attitudes and character of teachers and students (Mon, 2016; Supranoto, 2015; Ming, 2014; Susilo, 2013).

Based on the results of the learning study using the lesson study pattern, an activity of spreading lesson study practice was carried out by involving many parties. The parties involved

including JICA, the Ministry of Education and Culture, and the Ministry of Research, Technology, and Higher Education. Meanwhile, Mataram University as part of the Ministry of Research, Technology, and Higher Education has been involved in practicing lecture activities using lesson study patterns since 2010. Starting in 2015, the practice of lesson study was expanded to lecture activities implemented in postgraduate programs.

One of the lecture activities in implementing lesson study based learning is the strengthening of teaching ability through teaching and learning activities in school. The lesson study pattern was chosen as a way to improve teaching skills because it can be used to encourage the collaboration of teachers to learn and share experiences in implementing learning activities. Such conditions are expected to produce learning innovation that can improve teacher competence in developing professional abilities (Zubaidah, 2010; Cajkler et al., 2015).

The results of the research on learning practice using lesson study in lectures to strengthen teaching ability conducted by Hadiprayitno & Khair (2018) show that learning carried out by the teacher model is attractive to students although there are still some technical things that need to be optimized during the implemented learning activities. However, in implementing learning practices in schools not all students work as teachers. Therefore, students' understanding of the lesson study implementation sometimes comes out in different perceptions. This difference is expected to be minimized by actively involving students in implementing learning using lesson study patterns. One of them is carrying out teaching practices in Madrasah Tsanawiyah Negeri (MTsN) 2 Mataram.

The results of the lesson study-based learning implementation activities are expected to provide a comprehensive view related to students' perceptions of implementing learning practices. Besides, the results of this study can provide information related to the responses of students and teachers in MTsN 2 Mataram towards learning activities carried out collaboratively starting from the planning stage to the implementation stage. In the end, the results of this study are expected to be used as a reference in developing learning practices that have a positive impact on improving the ability of teachers' teaching and can improve the quality of learning in schools.

The results of the lesson study indicate that the teachers have difficulty in a change of the teaching paradigm (Ishii, 2017). Meanwhile, in the implementation of teaching based on lesson study, teachers must focus on student learning activities. Therefore, collaboration is needed not only between teachers (Cajkler et al., 2018) but also between schools (Nurwidodo et al., 2018) in the implementation of lesson study. Not all teachers have the same perception in carrying out lesson study and have the ability to carry out cooperation in learning activities. In this condition, research activities are needed that can be used as a reference in the implementation of learning based on lesson study, especially for teachers who do not have a learning community.

METHOD

Place and Time of Research

This research is a descriptive study that aims to describe the perspective of students in the implementation of learning based on lesson study in Madrasah Tsanawiyah Negeri 2 Mataram. This research activity was conducted for 3 months and involved 6 students of Masters in Magister of science education at the University of Mataram who acted as model teachers.

Data Collection Procedure

Data collection activity is conducted through learning activities using lesson study patterns. In doing each activity, it is started with making a plan (plan), implementation (do) and reflection (see). Implementation of lesson study in learning activities is carried out intensively and each student has 2 chances to be a model teacher and 10 chances as an observer. In each lesson study implementation, all students have the same opportunity to act as a model teacher and are actively involved in designing lesson plans, developing media, student worksheets, designing learning models to be used and developing evaluation tools. Each model teacher has the same responsibility to realize the quality of learning for their students. Competency Standards learned in this learning practice are to understand the survival of living things which consist of 4 Basic Competencies. The four basic competencies include (1) identifying the survival of living things through adaptation, natural selection, and breeding; (2) describes the inheritance of the nature of living things; (3) describe the process and results of inheritance and its application; and (4) describe the role of biotechnology in supporting human survival through food products.

Research Instruments and Data Analysis

The instrument used in the study consisted of learning device documents compiled by the model teacher, observation sheets for the implementation of lesson studies (plan, do, see), and student questionnaire responses. Data obtained during the learning activities were analyzed descriptively. The ability of the model teacher in designing learning activities is analyzed based on (1) the suitability of the indicators with basic competencies; (2) the compatibility of learning objectives with indicators; (3) the suitability of the learning model used with the learning objectives; (4) student worksheet compatibility with learning models; and (5) compatibility of learning evaluation tools with indicators. Meanwhile, the model teacher's ability to implement learning activities was analyzed based on (1) convey indicators and learning objectives; (2) clarity of topics and learning materials; (3) the suitability of the strategy with the learning topic; (4) the suitability of learning media; and (5) appropriateness of assessment with indicators. Students' perceptions of the teacher's ability to explain learning material are based on a questionnaire given to students during learning. The model teacher's interpretation of carrying out learning activities is based on reflection activities that are carried out together with the model teacher and observers after the learning activities have been carried out. Each indicator in designing and implementing learning activities is given the highest score of 4, which means the maximum score for all indicators is 20. The quality in designing and implementing learning activities is grouped into 4 categories, namely (1) score 1 - 5 (not good); (2) score 6-10 (Poor); (3) scores 11-15 (good); and (4) scores 16 - 20 (Very Good).

RESULTS AND DISCUSSION

The Ability of Model Teacher in Designing and Implementing Learning

The analysis result of the model teacher's ability in designing learning activity showed that 3 model teachers were still unable to plan properly (Table 1). One person is not good at formulating learning objectives and developing evaluation tools. One person is not good at arranging the learning goals, and one person is not good at developing learning evaluation tools. Meanwhile, 3 other model teachers were already good at designing learning activities. Therefore, based on the results of the analysis in Table 1 it can be said that the ability of the

model teacher in making learning plans can be categorized well with an average percentage of 87%. These results provide information that the planning process (plan) in lesson study has implications for the ability of teachers to design quality learning (Isozaki, Ochi, & Ueda, 2017). The collaboration that occurs between teachers in designing learning is the team's responsibility to realize learning objectives (Dutger, Moquin, & Hammounf, 2012).

Table 1. Analysis result of the model teacher's ability in designing learning activities

Model Teacher	Assessment Indicators in Designing Lesson Plan					Percentage (%)
	1	2	3	4	5	
AF	Good	Poor	Good	Good	Poor	60
MHB	Good	Poor	Good	Good	Good	80
AS	Good	Good	Good	Good	Poor	80
F	Good	Good	Good	Good	Good	100
FE	Good	Good	Good	Good	Good	100
LS	Good	Good	Good	Good	Good	100
Percentage (%)	100	67	100	100	67	

Note:

1. The suitability of the indicator with Basic Competence
2. The suitability of learning objectives with indicators
3. The suitability of the model with learning objectives
4. The compatibility of student worksheet with the learning model
5. The suitability of evaluation with indicators

The analysis results in Table 1 that developed lesson plans collaboratively show there is an increase in the model teacher in designing learning activities. The first model teacher (AF) received a score of 60, but the score obtained by the next model teacher increased. The MHB and AS scores were 80 respectively, higher than AF. Meanwhile, the next model teacher F, FE, and LS got the maximum score of 100.

Besides, to examine the achievements of each model teacher in designing learning activities, the results of the study in Table 1 also show the achievement of each indicator in the design of lesson plans. Achievement of each indicator in the lesson plan that has been designed by the model teacher shows that indicators 1, 3, and 4 can be completed very well at 100%. While indicators 2 and 5 are fulfilled both with a percentage of 67%. The average percentage for the achievement of all indicators is 87%. This means that every indicator in the lesson plan developed by the model teacher is well fulfilled.

Besides collaborating in designing learning activities, the model teacher also collaborates in implementing learning activities. The results of the study in Table 2 show that the model teacher in implementing learning activities gained scores of 14 to 18. The scores of 14-15 were included in the good category, while scores 16-18 were categorized very well. Three model teachers were able to implement learning activities well. Meanwhile, 3 other model teachers were able to implement learning activities very well.

Table 2. The ability of the model teacher in implementing learning activities

No	Model Teacher	Score	Category	Reflection on Learning Activities
1.	AF	14	Good	Students lacked the time to work on assignments Students found it difficult to understand the instructions given by the model teacher in working on the worksheet.
2.	F	15	Good	The evaluation tools used by the model teacher did not fully comply with the indicators and learning objectives.
3.	MHB	15	Good	Students were helped in understanding concepts through worksheets which were developed contextually. However, the technical implementation needed to be more improved.
4.	FE	16	Excellent	The selection of the right apperception and the use of suitable worksheet resulted in students being interested in participating in learning activities
5.	LS	17	Excellent	Students were enthusiastic in learning when the model teacher was delivering material related to everyday life such as the use of biotechnology to support human life.
6.	AS	18	Excellent	Students were able to complete the whole learning activities planned by the model teacher

If the results of the study in Table 2 were linked to the results of the study in Table 1, it showed that the ability of the model teacher in designing and implementing learning activities using lesson study patterns showed an increase. This goes in line with the statement that improving the quality of the developed lesson plans is very likely to occur because teachers have many opportunities to reflect, analyze, take action, evaluate and share understanding with other teachers. The principles of such a lesson study provide benefits to increase a teacher's knowledge and skills (Rock & Wilson, 2005). Lesson studies provide opportunities for all members to learn and share. With such a collaboration, designing plans becomes easier, the goals of learning can be more easily achieved, and the interests of students can be prioritized. Seeing from the increasing of quality and the improvement of lesson plans that were carried out from time to time showed that the model teacher possesses a good understanding and commitment in lesson study when she/he becomes a model teacher and an observer. Possessing an experience in direct lesson study will become a provision for prospective educators to improve their skills in designing and implementing learning activities.

The results of planning and implementing learning activities carried out by the model teacher received positive responses from students. A total of 112 students who shared their responses through questionnaires showed that the majority of students ($\geq 75\%$) were interested in participating in learning activities that used the pattern of lesson study (Figure 1). However, 1.8% of students said that "this model of learning is not interesting because the way the teacher teaches is too fast and his/her voice is too low" (Yenni A, IX-A). Besides, 2.7% of students stated that "the learning model is less interesting because the teacher was rather nervous and looked less enthusiastic" (Nadela, IX-B). Meanwhile, 8.9% of students said that "the learning

method is quite interesting because we were able to work on group assignments in the schoolyard rather than in the classroom".

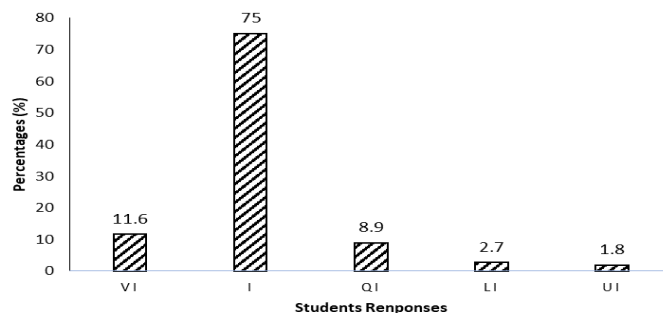


Figure 1. Students Responses to Learning Based on Lesson Study (VI: Very interesting, I: Interesting, QI: Quite interesting, LI: Less interesting, UI: Uninteresting)

Furthermore, the results of the study in Figure 1 show that 75% of students stated that the learning done by the teacher was an interesting model. Putri A and Siti Nabilah (IX-B) stated that "the learning model was interesting because we were able to conduct practicums". Agni Ristika (IX-C) states that "this learning model is interesting because of the delivery of the material was excellent"; Kamalia H and Dina Laziza (IX-C) "the learning model was interesting because the way the teacher taught us was good and understandable"; Sakhistiani (IX-A) "the learning model was interesting because of the way it explained the material and the tasks given were exciting and interesting"; Yuliani (IX-A) stated that "the learning model was interesting because I was able to work well with my partners". Besides, as many as 11.6% of students responded that the learning model they experienced was very interesting. Syafiq Afif (IX-A) said, "it was (the learning model) very interesting because we were able to directly observe the identifying feature of each other's parents". Nasrul Huda (IX-A) "it was very interesting even though I was not able to get out of the class but I could find out my self-feature is wether more inclined to the father or mother".

Based on the distribution data in Figure 1, it indicates that the learning model which used lesson patterns received negative responses from students (uninteresting and less interesting) even though the numbers are less than 5%. This is because the model teachers are less flexible in presenting the material and even looks a bit awkward when carrying out learning activities while being witnessed by several observers. This is a common finding in implementing the lesson study. The model teachers often feel "nervous" when appearing in front of the class (40%), but after learning takes place they can handle themselves and can teach well (Sriyati, 2007). The positive response (interesting and very interesting learning) can occur because the teachers facilitate students to feel new learning experiences and they are directly involved with learning activities, the students can learn about contextual things, and the learning atmosphere is designed to be fun and enjoyable.

The implementation of fine and fun learning is very possible to be done by the teachers when conducting a lesson study. This can occur because during the lesson study the teachers actively document and making a report or doing some reflections on their teaching and learning activities. During the process, the model teacher with the observer can also openly discuss and share any ideas that arise from students. The teachers also convey what they already know about learning and how their understanding relates to the achievement of the objectives and the

established indicator standards. These things are the basis of learning of the study lesson pattern (Lewis, 2010).

This kind of collaboration helps to increase social support and strengthens mutual understanding among participants, creates a positive atmosphere in modeling and collaborative practices, build learning communities and positive attitudes among members, reduce anxiety, facilitate critical thinking skills, improve learning processes and outcomes (Laal & Ghodsi, 2012). The positive atmosphere formed in the teacher's work environment (model teacher & observer) can also have a positive effect on student learning atmosphere.

Students Perspectives on the Implementation of Lesson Study

The process of reflection can be regarded to be the spirit of a lesson study. Through this reflection, every mutual learning and sharing activity can be exposed and recorded properly. Through this process, each member's perspective on this lesson study can be measured. 5 aspects of reflection must emerge and should become an indicator of someone's perspective on lesson study, namely (1) Delivering student responses, in the form of expressions, activities that show students learn from each other, such as asking questions and feel satisfied with an explanation from his friends or partners marked with a smile, a nod, ooh or yes, etc. (2) Delivering positive values/lessons obtained by the model teacher from his/her class today; (3) Expressing positive things, inspiration or lessons obtained by observers from today's learning activities; (4) Suggested improvements based on findings/data during the learning process; and (5) Disclosure of learning targets whether they are achieved or not. Related to this, the perspective of students towards the implementation of lesson study can be seen in Figure 2.

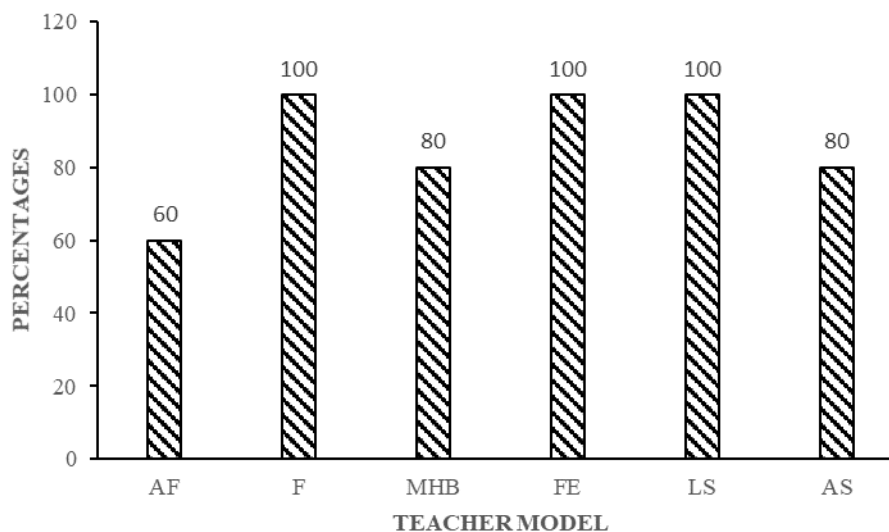


Figure 2. Students Perspectives on the Implementation of Learning Based on Lesson Study

Based on the analysis conducted on student reflection documents during lesson study (Figure 2), it can be explained that students have understood the lesson study well; their scores have ranged from 60-100. The results of the study in Figure 2 also show that 50% of the model teachers have good perceptions of the implementation of lesson study with a percentage of 60% (teachers of AF, F, and LS models). Then the other 50% have very good perspectives with a percentage of 80% -100% (MHB, US, and FE model teachers). Meanwhile, the percentage of achievement of each indicator in the reflection activity can be seen in Figure 3.

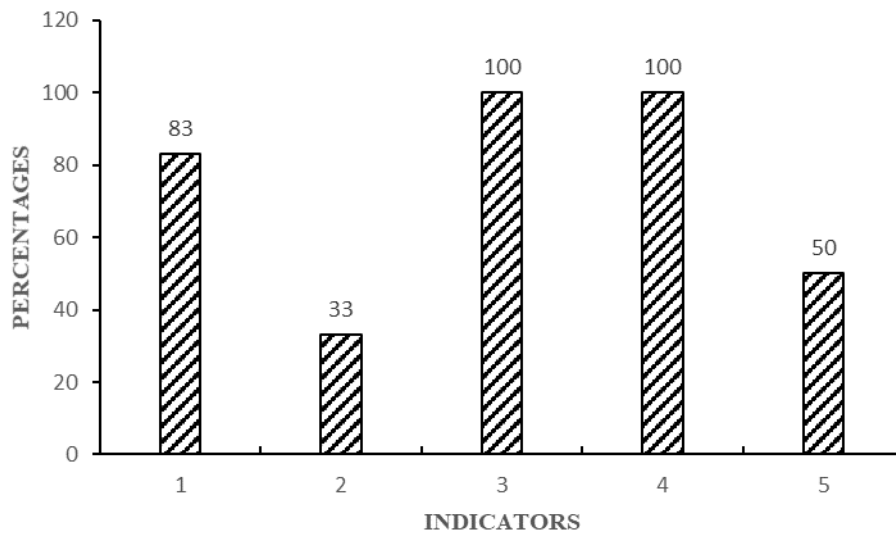


Figure 3. Graph of reflection indicators in Learning Based on Lesson Study

There are 5 indicators used to measure the implementation of reflection in lesson study activities. The results in Figure 3 show that indicators 3 and 4 have appeared 100% in the reflection conducted by the entire lesson-study team. While indicator 1 gained 83%. Meanwhile, the achievement of indicators 2 and 5 are still lacking with the percentage of 33% and 50%. These two indicators (indicators 2 and 5) can be learning input for the next model teachers so that they can carry out the lesson study even better. Given the purpose of the lesson, a study is to facilitate students to learn well so that the target of student learning achievement (indicator 5) should be the main topic in the reflection activities. Besides, this lesson study provides reflective learning for all participants involved. Therefore, the model teacher and the observer need not be awkward in expressing their self-reflection on what is obtained during the lesson study (indicator 2). It is because the reflection conducted by the participants (both the model teacher and the observer) can be learning input, learning material, and inspiration for others in carrying out a better Lesson Study.

Based on these studies, many students have a good perception of the implementation of lesson study. But 2 model teachers have weaknesses in (1) positive value of learning and (2) achievement of learning targets. However, implementation of learning based on lesson study in MTsN 2 Mataram can increase teacher collaboration in learning communities that have an impact on the ability of teachers in classroom management and focus teaching on student learning activities.

CONCLUSION

Based on the results, it can be concluded that students as model teachers possess a good perception of the implementation of learning based on lesson study at MTsN 2 Mataram. The use of lesson study helps teachers in a lesson plan, finding creative solutions in teaching problems, improve the quality and collaboration of the teachers and can improve the professionalism of teachers in the management classroom. This can be seen from the response of the students who stated that learning is interesting (75%) and 11.6% of students said that it is very interesting.

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