

Based Learning Training Lesson Study to Improve the Quality of Elementary School Teachers Kartasura Muhammadiyah, Indonesia

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Abstract

Aim of study is to examine and describe 1) the effectiveness of lesson study as a model of Muhammadiyah Elementary School teacher training to improve the quality of learning 2) validation of lesson study as a model of Muhammadiyah elementary school teacher training to improve the quality of learning. This research used an approach of descriptive-qualitative phenomenology and the research design used the modified class action-based lesson study. The subject of study included the Primary School teachers Muhammadiyah of Kartasura, and the informants were the teachers, headmasters, supervisor. The data gathering employed questionnaires, interview, and observation. The data analysis used the first order understanding and second order understanding with an interactive model, including data reduction, data display, and conclusion/verification. The conclusion of this research is, 1) The effectiveness of lesson study as a model of coaching Muhammadiyah elementary school teachers to improve its the quality of learning through K3S (Principal Working Group), while its implementation through KKG (Teacher Working Group) activities. 2) validation lesson study as a model of teacher development to improve its quality of learning through validation on a limited scale programmed by the KKG (Teacher Working Group) at the cluster level in each school, and carried out evaluation, and validation of this lesson study to create active, innovative, creative and fun learning.

Abstrak

Tujuan pembelajaran adalah untuk mengkaji dan mendeskripsikan 1) keefektifan pembelajaran belajar sebagai guru teladan di SD Muhammadiyah pelatihan untuk meningkatkan kualitas pembelajaran 2) validasi *lesson study* sebagai model pelatihan guru

SD Muhammadiyah untuk meningkatkan kualitas pembelajaran. Penelitian ini menggunakan pendekatan fenomenologi deskriptif-kualitatif dan desain penelitian menggunakan lesson study berbasis tindakan kelas yang dimodifikasi. Subjek studi antara lain guru SD Muhammadiyah Kartasura, dan informannya adalah guru, kepala sekolah, dan supervisor. Pengumpulan data menggunakan kuesioner, wawancara, dan observasi. Analisis data menggunakan pemahaman orde pertama dan orde kedua pemahaman dengan model interaktif, termasuk reduksi data, data tampilan, dan kesimpulan/verifikasi. Kesimpulan dari penelitian ini adalah, 1) efektivitas *lesson study* sebagai model pembinaan Muhammadiyah guru SD untuk meningkatkan kualitas pembelajarannya melalui K3S (Pokja Utama), sedangkan implementasinya melalui KKG (Kelompok Kerja Guru) kegiatan. 2) validasi *lesson study* sebagai model pengembangan guru untuk meningkatkan kualitas pembelajaran melalui validasi skala terbatas yang diprogramkan oleh KKG (Kerja Guru kelompok) di tingkat klaster di masing-masing sekolah, dan dilakukan evaluasi, dan validasi *lesson study* ini untuk menciptakan karya yang aktif, inovatif, kreatif dan pembelajaran yang menyenangkan.

1. INTRODUCTION

There are many factors in teacher coaching to improve the quality of learning in schools, including: 1) teachers and students, 2) library and media 3) facilities and infrastructure, 4) laboratories and their equipment, 5) comfortable environment and management (Subadi, 2013)¹. These teacher coaching efforts are intended to improve teacher competence and learning quality. Efforts to improve teacher competence can be made using two approaches, namely internal and external approaches. The internal approach by utilizing more experienced teachers as coaches, while the external approach by sending teachers to follow program training, advanced study, and partnership programs. The characteristics of the partnership program are developed through the principle of collaboration that benefits the parties involved.

Elementary school as one of the basic education institutions has a very fundamental function in preparing quality human resources, because elementary school is the foundation of the educational process that is at the next level. The problem that arises today is how to improve the quality of learning to achieve quality educational output. The main problem faced by teachers in managing elementary schools today

lies not only in the efficiency side but also the problem of the low quality of education.

Balitbang (2003) notes the quality of education in Indonesia, among others; out of 146,052 primary schools, there are only 8 schools that have received world recognition in the category of The Primary Years Program, and from 20,918 junior high schools there are only 8 schools that have received world recognition in the category of The Middle Years Program, and out of 8,036 SMA there are only 7 schools that have received world recognition in the category The Diploma Program. Meanwhile, the quality of teachers (2002-2003), data on teachers who are fit to teach in SD is only 21.07% (public) and 28.94% (private), only 54.12% (public) and 60.09% (private) in SMP), in SMA 65.29% (public) and 64, 73% (private), and at SMK 55.49% (public) and 58.26% (private) (Subadi, 2018)²

In developed countries such as Japan, the strategy for teacher development is carried out as an effort to improve teacher professionalism by using the lesson study approach, now the lesson study approach as a model for teacher development does not only belong to Japan but lesson study is ours, even worldwide. Lesson Study is basically a form of teacher professional development activities characterized by

collaborative learning, meaning that a teacher teaches, while other peer teachers act as an observer, making it possible to share learning experiences with peers.

The lesson study referred to in this research is a gradual and cyclical teacher training process, starting with a teacher collaborating with other teachers: 1) planning lessons through academic exploration of teaching materials and learning tools; 2) carry out learning based on the lesson plans and tools made, inviting peers to observe; 3) reflecting on the lessons earlier through discussions with the observers, therefore the implementation of the lesson study program needs to be monitored and evaluated so that its effectiveness and efficiency will be known.

Lesson study as an activity to improve teacher competence and professionalism is intended as an academic activity to analyze a learning practice carried out in the form of a research-based teaching and learning process, which includes three stages of activities, namely: 1) Planning 2) Implementation of learning and observation. 3) Reflection on the planning and implementation of the learning, to find certain learning innovations.

Lesson study studies as a model for professional teacher development are mostly carried out by educational researchers, including research conducted by Sagor (1992)³¹ which explains that there are three main stages in lesson study, namely the planning stage, the implementation stage, the reflection stage. From these stages, when referring to the PTK (Classroom Action Research), lesson study actors work at three stages, namely: (1) initiating action (2) monitoring and correcting actions, (3) evaluating actions. Subadi (2019)⁴¹ stated that, in conducting the present action research, structured routines are implemented in the school community. The routines are basically five continuous phases of inquiry comprising 1) The problem identification, 2) The organization of data, 3) The Data interpretation, 4) The Action based on data, and 5) The Reflection.

Meanwhile, Richardson (2006)⁵¹ suggests 7 stages of lesson study to improve teacher quality, namely (1) forming a lesson study team (2) focusing on lesson study (3) planning learning (4) preparing for observation (5) implementing

learning and observation (6) carry out the learning discussion that has been carried out (7) plan learning for the next stage. Lewis (2002)⁶¹ suggests there are six stages in implementing lesson study in schools, namely (1) Forming lesson study groups (2) focusing on lesson study (3) preparing learning plans (4) implementing learning in class and observing it (5) analyzing learning has been implemented (6) planning the next stage of learning. Meanwhile Herawati Susilo (2013)⁷¹ explains; Lesson study can be a means of increasing teacher competence.

According to Tjipto Subadi and Samino (2009)⁸¹ lesson study-based teacher coaching faces two problems and several levels of difficulty, namely internal problems and external problems. The level of difficulty is "varied", namely very much experiencing difficulties (17.28%), quite a lot of difficulties (30.88%), having a little difficulty (33.99%) and feeling very easy (17.85%). Meanwhile, Subadi's research, Khotimah, and Sutarni (2012)⁹¹ concluded: 1) There are four problems in improving teacher professionalism, namely: internal problems, external problems, commitment issues, and teacher willingness problems. Meanwhile, Subadi's research, Mutiyasa, Sutopo, Sutarna, Muhroji (2016)¹⁰¹ concluded: 1) The problems faced by elementary school teachers in improving the quality of lesson study-based education, there are two problems; 1) internal problem and 2) external problem. The difficulty level is very difficult 16,315%, quite difficult 32,142%, a little difficult 36,544%, not difficult 15,998%; 2) There are two effectiveness of lesson study as a model for teacher guidance to improve the quality of education, namely a) the effectiveness of lesson study based on theory and b) the effectiveness of lesson study based on practice. Meanwhile, Subadi, Narimo, and Dahroni's research (2017)¹¹¹ concluded: 1) Lesson study-based social studies teacher development model, in implementing the National Curriculum at Kartasura Elementary School, uses three approaches, namely: workshops and training; peer teaching; and learning assistance.

The problems are 1) how is the effectiveness of lesson study as a training model for Muhammadiyah elementary school teachers to improve the quality of learning? 2) how is the

validation of lesson study as a training model for Muhammadiyah Elementary School teachers to improve the quality of learning? Meanwhile, the research objective was to study and describe 1) the effectiveness of lesson study as a model for training Muhammadiyah elementary school teachers to improve the quality of learning 2) validation of lesson study as a model for training Muhammadiyah elementary school teachers to improve the quality of learning.

UU No. 20 tahun 2003 and UU no. 14 tahun 2005 explains that the main task of the teacher as an educator, teacher, guide, director, trainer, assessor and evaluator of students. If the teacher's duties are carried out properly, the teacher means to be a professional teacher. Boaduo and Babitseng (2007)^{12]} explain that a profession is a position with a set of abilities based on knowledge obtained through a professional education and training process. Meanwhile, according to UU no. 14 tahun 2005 concerning Teachers and Lecturers, Competence is a set of knowledge, skills, and behaviors that must be possessed, lived in, and controlled by teachers or lecturers in carrying out professional duties. In order to implement PP no 19 tahun 2005 concerning National Education Standards, the Republic of Indonesia Minister of Education Regulation No 16 tahun 2007 concerning Academic Qualification Standards and Teacher Competence was issued. In this regulation, it is explained that teacher competency standards are developed in full from four main competencies, namely: 1) Pedagogic Competence 2) Personality Competence. 3) Social Competence. 4) Professional Competence.

2. METHODS

This study uses a phenomenological qualitative descriptive approach with a social definition paradigm that examines micro problems. This social definition paradigm will provide an opportunity for a person as a research subject and as a research informant to provide an interpretation of the research question, and then the researcher makes an interpretation of that interpretation until he gets new and scientific knowledge, which does not change the meaning between the informant's interpretation and the researcher's interpretation.

The research design used a lesson study cycle training based on the modified CAR model Tjipto Subadi (2018)^{13]} which consisted of four stages of three cycles. The four stages, namely stage 1 Academic study, stage 2 Planning, stage 3 implementation of core learning and observation; stage 4 reflection. The three cycles are cycles 1, 2, 3, as shown in attachment 1 of Figure 1.

The research site at SD Muhammadiyah Wirogunan Kartasura Indonesia, the research subjects consisted of 33 students and 19 teachers from representatives of 6 Muhammadiyah Kartasura Elementary Schools, while the research informants were teachers, school principals, and bureaucracy (education supervisors).

Data collection techniques using documentation, observation and in-depth interviews. The documentation method is used to obtain data on the names of schools, teachers, students as well as data relating to educational documents in the school where the study is located. Observations and interviews were used to obtain data relating to 1) the effectiveness of lesson study as a model for teacher guidance to improve its quality and 2) testing of lesson study as a model for teacher training to improve the quality of learning, observations were made to observe lesson study-based learning practices in class, while interviews were conducted with the teacher, the principal. The interview process gets an interpretation from the informant, and then the researcher interprets the informant's interpretation until he gets a scientific language that does not change the meaning of the first interpretation, in this case the theory used is first order understanding and second order understanding (Subadi, 2018)^{14]}.

While the data analysis technique refers to the opinion of Miles (1992)^{15]} which consists of three streams of activities that occur simultaneously, namely; data reduction, data presentation, drawing conclusions.

3. RESULTS AND DISCUSSION

- a. The effectiveness of lesson study as a model for teacher guidance to improve its quality. To review and describe the effectiveness of lesson study in this study, lesson study-

based learning training was conducted by model teachers, while other teachers were observers. The steps for the teacher to collaborate with other teachers a) discuss to review the syllabus to equalize perceptions. b) make lesson plans c) determine model teachers and observers to carry out learning. d) reflect on the model teacher learning. In simple terms, these steps can be seen in attachment 2 of photo 1.

To find out the effectiveness of lesson study, researchers conducted interviews with informants, how was the effectiveness of lesson study as a model for teacher guidance to improve its quality? Based on the results of interviews with several informants, the informants' interpretation was obtained (first order understanding) as follows;

Informants 1

Explained that: a) The efforts of teachers to improve their quality through lesson study-based learning training, this training has been developed since 2002, the training needs to be improved. b) Implementation of lesson study through K3S / Principal Working Group c) Lesson studies have been developed and followed by teacher representatives from each elementary school c) Effectiveness of lesson study as a model for teacher training through several stages and cycles, namely the syllabus review stage, making a functional learning plan, the implementation of learning by the model teacher, the observation of learning by other teachers, the evaluation of the model teacher's learning, making improvement plans, the implementation of the second learning by the model teacher, the second learning observation by another teacher, the evaluation of the learning of the two model teachers, and so on carried out until 3 cycles

Informant 2

The same thing was also explained by informant 2 that the development of a model for improving the quality of elementary school teachers with a lesson study approach using a gradual and cyclical

approach with the guidance of the school principal. The effectiveness of lesson study as a model for teacher training through a cycle stage system based on Teacher Working Groups with the guidance of the Principal.

Informants 3

Meanwhile, according to informant 3 that lesson study training already exists, but not all teachers have received training, field implementation still needs to be improved, implementation of lesson study is coordinated by the principal, while effective lesson study uses a gradual and cyclical system.

From the results of the above interviews, researchers can interpret (second order understanding) that the effectiveness of lesson study as a model for training for Muhammadiyah Elementary School teachers to improve the quality of learning using a gradual and cyclical approach, the implementation of lesson study is coordinated by the principal, while its implementation is through teacher working group activities local school-based.

This is according to what Thompson (2007)¹⁶⁾ suggests in a study entitled: Inquiry in the Life Sciences: The Plant-in-a-Jar as a Catalyst for Learning, the conclusion is that: 1) There is an attempt by teachers to change learning patterns through training, This means that teachers are required to be more creative and innovative. 2) The teacher is looking for a breakthrough through training for the development of subject matter so that learning becomes more enjoyable. 3) The teacher's effort to make a learning model as a student reference. Thompson further suggested the importance of professional development of teachers to be more creative and innovative, which can affect learning to be fun and democratic.

- b. Validate lesson study as a model for teacher training to improve the quality of learning. To test lesson study as a model for teacher training, this study was conducted on a

limited scale, which was limited to a group of teachers at SD Muhammadiyah Kartasura as research subjects, the teachers conducted lesson study based learning by presenting model teachers as class teachers and other teachers as research subjects. observer, while the researcher and the principal are the supervisor and mentor. Lesson study-based learning on a limited scale is carried out gradually and cyclically (the model teacher does 3 lessons)

To complement the validation data for this lesson study, the researchers conducted interviews with research informants, how could the lesson study be tested as a model for teacher training to improve the quality of learning? Based on the results of interviews with several informants, the informants' interpretation was obtained (first order understanding) as follows;

Informants 4

Explained that the validation of lesson study as a model for teacher training to improve the quality of learning is limited through the guidance of the principal, a budget is required. According to him, lesson study trials were carried out in each school, followed by teachers in their schools, and evaluated by the principal and the lesson study team, positive findings were discussed in the teacher council meeting. Lesson study-based teacher training can create classroom situations to be active, innovative, creative and fun, as evidenced by many children who ask questions, have opinions, are cheerful by singing.

Informants 5 and 6

Meanwhile, according to informant 5, lesson study development needs to be sustainable and programmed, so that its implementation is better and successful. This statement is almost the same as the statement of informant 6 that the validation of lesson study through evaluation and reflection by the teacher working group, and validation of lesson study as a model for teacher development to improve the quality of learning through validation on a limited scale, programmed by the teacher working group. Lesson study-based teacher training

is to create active, innovative, creative and fun learning.

From the explanation above, the researcher can interpret (second order understanding) that the validation of lesson study as a teacher training model to improve the quality of learning through validation on a limited scale is programmed by the teacher working group in each school. Lesson study-based teacher training is able to create active, innovative, creative and fun learning, the indicators are many students who ask questions, many students answer teacher questions, many students express opinions, and a happy situation is created with the singing approach.

A discussion of the validation of lesson study as a model for teacher training to improve the quality of learning if it is connected with Stewart's (2005)¹⁷¹ study, entitled: A Model for Teacher Collaboration, this research is complementary and there is compatibility. Stewart's research shows that the best way to accomplish positive improvements at each grade level in a school is to adopt a tested learning model.

This lesson study-based active, innovative, creative and fun learning model is in line with Robinson's (2006)¹⁸¹ research on: Prospective Teachers' Perspectives On Microteaching Lesson Study, concludes that learning mathematics uses a micro-teaching-based learning approach and lesson study that involves a teacher collaborates with other teachers, this is in line with the discussion of the research results above. In addition, this lesson study research is in accordance with the results of research by William Cerbin and Bryan Kopp (2006)¹⁹¹, a lecturer at the University of Wisconsin-L. Crosse entitled: Lesson Study as a Model for Building Paedagogical Knowledge and Improving Teaching, one of the discussions that the lesson study model is a teachers collaborate with other teachers to solve difficulties in achieving learning goals. Marsigit (2007)²⁰¹ in "Mathematics Teachers" Professional Development Through Lesson Study in Indonesia "in the

discussion of his research writes that the lesson study model provides an opportunity for a teacher to collaborate with students to build new initiatives.

4. CONCLUSIONS

- a. The effectiveness of lesson study as a model for teacher guidance to improve the quality of Muhammadiyah elementary school teachers uses a four-stage-three-cycle system coordinated by K3S (Principal Working Group), while its implementation is through KKG (Teacher Working Group) activities. The effectiveness of this lesson study can also create classroom situations to be active, innovative, creative and fun. It is proven that many children ask questions, have an opinion, are cheerful (because they are integrated with the singing approach).

- b. Validation of lesson study as a model for teacher training to improve the quality of learning, through validation on a limited scale, programmed by the KKG (Teacher Working Group) at the cluster level in each school, and evaluated by the Principal and the lesson study team, the findings positive ones were discussed in the KKG meeting.

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Attachment 1 of Figure 1

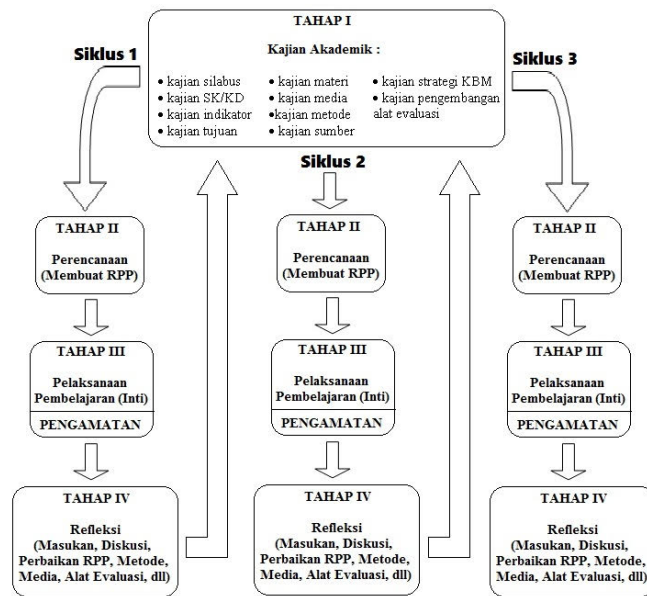


Figure 1 The cycle of modified CAR-based lesson study

Attachment 2 of photo 1

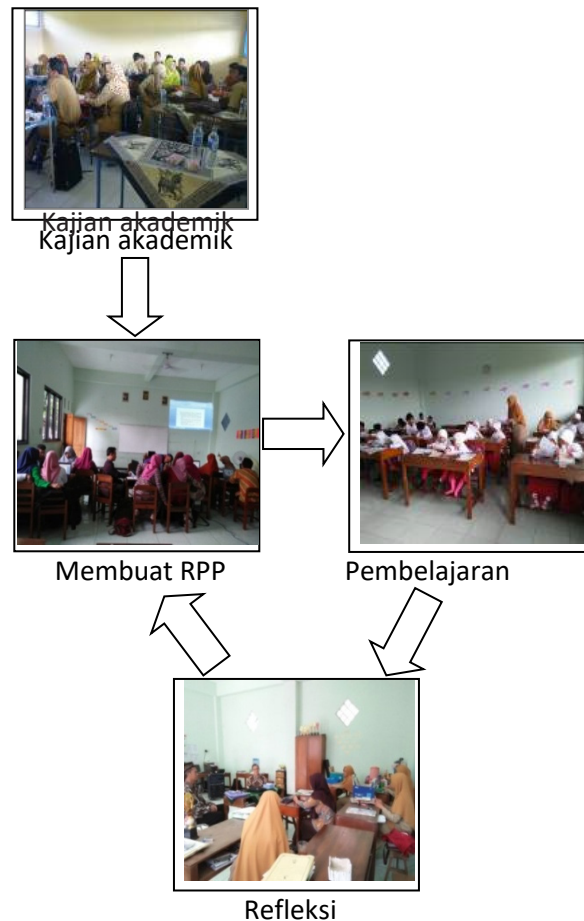


Figure 2 Lesson Study-based Learning Cycle