

LESSON STUDY: ENGAGING COLLABORATIVE LEARNING TO PROMOTE TEACHERS' PEDAGOGICAL COMPETENCE

Siti Aimah^{1*}, Bambang Purwanto²⁾, Heri Dwi Santoso³⁾, Muhimatul Ifadah⁴⁾

Universitas Muhammadiyah Semarang
Indonesia

*siti.aimah@unimus.ac.id

Abstract

Teacher quality is the most important factor in enhancing student achievement. In order to achieve the goal, lesson study comprises three main phases of plan, do, and see encourages teachers to do collaborative learning in which they create learning communities to discover, create, and negotiate new meanings to improve their teaching. Teachers at all stages of their careers could learn from one another. They could work together, discuss common teaching issues, share successful strategies, and develop new approaches to share problems. Organizing such networks of teacher in collaborative learning promotes an effective way to share pedagogical and content knowledge. In order to think productively about ways to enhance student learning, teachers need to consider both the material they are teaching and the ways that they are presenting it. Considering the importance of both of them, this study aims to know the impact of collaborative learning to teacher performance particularly in SD/MI Al Hikmah Semarang. By involving three model teachers conducting teaching and learning process, and six observers (teachers and lecturers) observing the teacher performance and student activities in the classroom conducted in two cycles, this study shows that collaboration among teachers increased their performance of teaching in which teachers emphasized using active engagement, appropriate learning designs, and application of theories on learning. The majority of teachers agreed that collaborative learning through lesson study helped their performance of teaching. Teachers who participated in collaborative learning had better achievement in their teaching performance rather than those who did not participate in collaborative learning.

Keywords: lesson study, collaborative learning, pedagogical knowledge

Introduction

Most teachers commonly face some problems of learning. The problems could not be separated from the quality of learning in which it is determined by the quality of teachers as well (Aimah et al., 2017). Dealing with the quality of teachers, the government has set the rule for the teachers to master four competencies; they are pedagogical competence, professional competence, personality competence, and social competence (Government Rule No. 16 Year 2007).

The Mastery of pedagogical competence is very important for the teachers because they have to be able to manage and control the learning process in the classroom (Ryegard, et al: 2010). Those are very required in the learning process in which the teachers must know how to create a good interaction with the students, how to perform

in the classroom, how to design a learning process, and how to choose the appropriate method and media tailored to the students' needs and characteristics (Law No. 14 Year 2005).

To promote teachers' pedagogical competence, collaborative learning is required. By doing collaborative learning, teachers discuss the issue of learning with the others. They share their thoughts, reflect upon and further develop their skills for making changes to their teaching practices. Lesson study is a program of teacher development to engage collaborative learning. Through lesson study, teachers collaboratively plan, teach, observe and analyze learning and teaching in "research lessons" (Dudley, 2014). Through the processes of joint planning, joint observation and joint analysis, the teachers have collectively to imagine learning. So, they will

see some aspects of student learning through the eyes of others as well as through their own, and they compare the actual learning observed in the research lesson with the learning they imagined when they planned it.

Thus, this study aims to know the impact of collaborative learning to teachers' performance of teaching in the classroom through lesson study.

Methodology

This study involved three teachers of SD and MI Al Hikmah Semarang and six observers comprising three teachers and three lecturers. The participants were chosen purposively based on the principal's recommendation in which they faced many problems of conducting teaching and learning.

This study was conducted in two cycles of research lesson which consisted of plan, do, and see as proposed by Lewis (2002). Observation and interview with the three teachers were gathered to collect the data. The data were analyzed qualitatively and quantitatively to depict the impact of collaborative learning to the teachers' performance.

Findings and Discussion

1. Collaboration in Lesson Study

In conducting research lesson, the discussion with the principals, the teachers, and the lecturers collaboratively was done in order to improve the teaching practices. It concurs with Lawrence and Chong (2010) that collaboration enables teachers to converse about their theories, methods, and processes of teaching and learning to improve upon classroom instruction. The issue of teaching mostly dominated the discussion in the stage of planning. Each participant shared his/her experience of teaching, knowledge, and opinions dealing with the issue being talked.

Through collaborative learning demanding them to share and exchange with the others, the teachers get opportunities to critically examine their classroom instruction in order to make changes. It is in line with Lawrence and Chong (2010) state that

collaborative learning provides the teachers to develop and shape the skills of critical thinking and good questioning. It is because the discussion creates some assumption from the others. Thus, collaborative learning promotes the teachers to increase their knowledge about teaching and learning process.

The condition could not be avoided because they had to collaboratively discuss their teaching and learning practices. One of the teachers said that she got a lot of benefits from the program. She did not feel that she faced the problems by herself. Discussing the issue of learning and teaching with the others helped her to solve the problems. It also made the teacher more confidence to practice her teaching. She was helped to solve the problems by planning and designing the scenario of learning collaboratively. The teacher felt that lesson study helped her much in gaining the knowledge.

2. Teachers' performance of Teaching

Based on the result of the observation, the teachers' performance of teaching improved. In detail, the assessment done by the observers to the three teachers' performance could be seen in the following table.

Table 1. Teachers' Performance

	Cycle 1	Criteria	Cycle 2	Criteria
Teacher A	3.0	Fair	3.56	Good
Teacher B	2.14	Bad	3.27	Fair
Teacher C	2.10	Bad	3.00	Fair

Table 1 shows that there is a significant difference result among the three teachers' performance in which Teacher A's performance was better than the two the others in which in cycle 1 the score was 3.0 (fair) and cycle 2 was 3.56 (good).

In the aspects of assessment in cycle 1, the teacher's characteristic was the highest among the other criteria in which the score was 3.5 with the category good. Meanwhile, in the aspect of preparation, it obtained the lowest score (2.7). The teacher admitted that preparing a lesson plan was quite hard for

her because she had no time to do that. She could not prepare any media and method used to support teaching and learning process in the classroom.

While in the cycle 2, Teacher A felt that collaborative learning helped her in designing her lesson. It was because it was not only done by herself but also by involving the others. They collaboratively formulated the long-term goals of learning. It influenced the other aspect of pedagogy that must be prepared by the teacher; for instance, selecting the media and method of learning, setting the learning class, etc.

In the term of presenting the material, Teacher A also obtained high score (3.39). The condition was quite different with the cycle 1 in which the score was only 2.9 categorized fair. Through collaborative learning, the teacher formulated with the others how to convey the materials in an easy way so that it could be understood well by the students. In this point, the teacher also gave opportunities to the students to explore their ability in learning through the activities set up previously with the other observers. The activities also made the students more responsible and independent. They looked like more energized in learning.

The score of Teacher B and Teacher C's performance in cycle 1 and cycle 2 was not quite significant in which the criteria of the scores were still fair. However, if it was seen from each aspect of the assessment, it proves that collaborative learning also helped them much in improving their pedagogical knowledge.

Both teachers commonly faced some problems in designing their lesson. It was proven with the lesson plan shown to the observers in which it was downloaded from the internet. They did not develop the lesson plan tailored to their own students. Because of the lack of the teachers in preparing the lesson plan, it influenced them in delivering the materials to the students. Consequently, their teaching performances were not structured and organized well. They preferred to ask the students to listen to their

explanation which then continued with posing some questions functioning to activate the students in the classroom. Besides that, the teachers' ability in selecting the media and method of learning was also still low. It was proven with LKS (student's work sheet) as the only source used by the teachers in the classroom. The teachers said that LKS helped them in controlling the students in the classroom.

Dealing with those problems, commonly the three teachers faced the similar problems. However, those teachers taught different students in different grade. The students' ability in absorbing the information and/or material conveyed by the teachers also influenced the success of teaching and learning in the classroom. Thus, the point emphasized in collaborative learning is about teachers' pedagogical knowledge. That is how the content should be taught to foster student learning (Wood and Cajkler, 2017).

In general, both teachers' performance improved from cycle 1 to cycle 2 with the average score was 2.12 and 3.13. Even though the criteria of the score were only fair in the cycle 2, it also showed that collaborative learning succeeded in helping the teachers to solve their problems of teaching.

Conclusions

The findings of the study suggested us with some thoughtful implications for using collaborative learning through lesson study for improving teacher professional development. Through collaborative learning, it helped the teachers to increase their pedagogical knowledge and their awareness of teaching that must be formulated in long-term goals.

This study was limited only in three teachers teaching three different subjects. Thus, further study should be conducted in the wider scope of teaching to measure the quality of teaching and learning completely. It would also be ideal if the principals involve actively in the program of lesson

study from the beginning to the end in order to give the feedback to the teachers' performance.

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