



MODELLING PRACTICE GUIDANCE CONSOLIDATION PROFESSIONAL CAPABILITY (PKP) ON DISTANCE EDUCATION STUDENTS THROUGH LESSON STUDY

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Abstract:

This research aims to develop the lesson study modelling as a practical approach to the mentoring of professional capability (Pemantapan Kemampuan Profesional/PKP) practices, to know the results of the use of lesson study and to know the results of the evaluation of the lesson study of teacher attitude change students. The study was conducted with the paradigm of participatory or emancipatory approach as a fundamental concept that set out the participatory action research. The research method used observation techniques, learning journals, interviews, and documentaries in depth. The results showed that the lesson study is a model of professional development of educators through collaborative learning and continuous assessment based on the principles of collegiality and mutual learning to build a learning community. There are six phases of the lesson study on PKP mentoring activities. These six stages are implemented in the form of a cycle plan-do-see (reflection). Through lesson study under the guidance of the Consolidation Professional Competencies program occurred an increasing competence and professionalism of teachers, improving process quality and learning outcomes, development of a democratic learning paradigm based on constructivism to build a scientific mindset.

Keywords: lesson study, teacher professionalism, Consolidation Professional Competencies guidance

1. Introduction

Education reform should start from how students and teachers learn and how teachers teach, not solely on learning outcomes (Brook & Brook, 1993). Podhorsky, C., & Fisher, D., (2007) stated that education reform should be interpreted as an effort to create programs that focus on improving the practice of teaching and learning, not solely

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focused on designing classes with the teacher-proof curriculum. Thus, instructional practices intended to overcome the failure of students' learning. Instructional practices can only be changed through the examination of the ways teachers learn and teach and analyse their impact on student learning gains.

The teacher's professional development programs need facilities that can give them learning how to learn and to learn about teaching. The facilities mentioned, such as lesson study. The Lesson Study (LS) provides a way for teachers to be able to systematically improve learning (Podhorsky, C., & Fisher, D., 2007). LS provides a process for collaborating and designing lessons and evaluating the success of teaching strategies that have been applied as an effort to improve the process and student learning (Lewis, 2002; Lewis et al., 2006). In these LS processes, teachers work together to plan, teach, and observe cooperative learning. Meanwhile, a teacher implements classroom learning; others follow and records students' questions and understanding. The use of LS processes with professional development programs is an attraction to return teachers to a proportional teaching culture (Lewis, 2002).

The benefit of the Lesson Study was also felt by the accompanying lecturers who were followed up with the renewal of learning at the Open University. Lecturers are more democratic and more patient in serving students and learning student-centred lessons as well as student-centred learning. The Lesson study has also been devoted to lectures at the Open University to improve the quality of lectures. Besides, the lesson study pattern has been adopted in the development of students doing PPL ((Field experience Program) and PLP (Professional training Program) in school.

Now the lesson study has become a national program. Ministry of Research, Technology and Higher Education of the Republic of Indonesia (DIKTI) is disseminating lesson study throughout the Teacher Training Institutions (Lembaga Pendidikan Tenaga Keguruan/LPTK), and dissemination program is being developed by the team of Lesson Study Directorate of DIKTI. Directorate-General for Quality Improvement of Teachers and Education Personnel (Peningkatan Mutu Pendidik dan Tenaga Kependidikan/PMPTK) will also disseminate lesson study to all districts/cities throughout Indonesia gradually. Certainly expected the implementation of the lesson study in Indonesia is not seen as a project that ended while the project ended, but should be seen as the need for continuous quality improvement to impact the quality improvement of the teacher Indonesian.

As the estuary program of S1 Primary School Teacher Education (Pendidikan Guru Sekolah Dasar/PGSD) program, professional capability (Pemantapan Kemampuan Profesional/PKP) is the culmination of the courses that have been followed previously by students S1 PGSD. Through PKP, students are expected to have a better professional ability to apply class action research principles (Penelitian Tindakan Kelas/PTK) to discover, analyze, and formulate learning issues faced, find and Designing problem-solving through learning improvement plans, implementing learning improvements, recognizing the strengths and weaknesses of their own performance in the advancement of learning, and scientifically accountable for improvements learning.

Based on the objectives of the professional capability (PKP) program, S1 PGSD (Primary School Teacher Education Department) students are expected to have better professional skills as a teacher. The competency required by professional teachers is to have the habit and scientific ability to design, implement, find strengths and weaknesses in learning, and utilise it for the next improvement of education.

Several findings in previous studies have shown that applying a mentoring model through a lesson study demonstrates a change in the performance of students in improving learning. Within the framework of the findings and analysis, researchers sought to improve the PKP guidance pattern with a PKP guidance strategy tailored to the results of reflections from previously designed models.

Modelling improvement is undoubtedly based on the model of modelling strategy and gives space on the essence of the lesson study that has not been done at the previous modelling stage. Namely digging strong relationships of collegiality (social competencies), improving Motivation always to develop (personality competence), and establish the study of the theory of Styler and Hiebert (in Spark, 1999). The lesson study should be conducted through a collaborative process on a group of teachers when identifying problems Learning scenarios, Designing a learning scenario (which includes searching for books and articles on topics to be taught), teaching learners according to the situation (one of the teachers who performed the learning, while the others observe), evaluate and revise the Learning scenario, reteaching The revised learning scenario, reevaluating the learning and sharing the results with other teachers, which is disseminating the results of the professional capability (Pemantapan Kemampuan Profesional/PKP) report based on PTK (class action research) work.

Concerning the background of the problem and the meaningfulness of the lesson study as a way, the formulation of the issues in this research is how much effect of the use of lesson study in modelling practice mentoring ability Professional on students S1 PGSD (Primary School Teacher Education Department) in Open University?. Specifically focused on the following research questions:

- 1) How to develop lesson study modelling as an effective approach for professional capability (Pemantapan Kemampuan Profesional/PKP) practice mentoring?
- 2) What are the results of the use of the lesson study as an effective modelling for PKP practice mentoring?
- 3) How does the evaluation of the lesson study change the teacher/student attitude?

2. Literature Review

2.1 The Nature of Professional Capability (PKP) Guiding

Professional capability (PKP) as an inlet of Primary School Teacher Education (PGSD) Program is designed to provide learning experiences that can enhance the ability of elementary school teachers in managing professional learning. Competencies expected of the students mastered after attending the PKP can revise and/or improve the quality of teaching or learning thematic subject areas taught in elementary school by applying the rules of classroom action research (PTK). More specifically, students are expected to:

- a. Plan the quality of learning refinement/improvement based on the results of inquiry through reflection after the lesson;
- b. Carry out the quality of learning refinement/improvement by applying the rules and principles of PKP; and
- c. Account for the quality of learning refinement action/improvement scientifically in the form of a report.

Professional capability (Pemantapan Kemampuan Profesional/PKP) learning is done through self-learning and face-to-face guiding. Students undertake independent study to strengthen understanding PKP planning and implementation, various learning theories and principles related to learning problems or conditions that will be corrected and improved, as well as the planning and execution of learning to enhance and/or enhance the quality of learning. Besides, students also need to practice the inquiry practice through reflection after the lesson ended, draft remedial learning, practice doing the improvement learning, and prepare the quality of learning refinement/improvement report and journal articles from the reports that have been made. Practice inquiry through reflection, planning, executing and assessing the quality of learning refinement/improvement is done systematically with intensive supervision. Face-to-face mentoring conducted to share experiences and discuss the process and the advancement of learning outcomes. Moreover, guidance is also done in preparing reports for the improvement of learning and scientific journal articles.

2.2 The Nature of Lesson Study

Lesson study is an approach to improve the quality of learning that comes from Japan. In this country, that word or term is more popularly known as "jugyokenkyu" (Lewis, 2002). According to the Indonesian term, it can be referred to as "the study of learning" or "learning examined". According to Wang - Iverson (2002), the word "lesson" includes not only a description of what will be taught in a certain period of time, but it contains things that are much broader.

According to Styler and Hiebert (in Spark, 1999) lesson study is a collaborative process to identify a group of teachers when identification learning problems, designing a learning scenario (which includes searching for books and articles on topics that will be taught), teaching learners under the scenarios (one of the teachers carry out the learning process, while the others observe), evaluate and revise the learning scenario, re-teaching the learning scenario that has been revised re-evaluate the learning and share the results with other teachers (disseminate it).

According to Lewis (2002) and Iverson (2002) Lesson study has a considerable role in making systematic changes. In Japan, the lesson not only contributes to the professional knowledge of the teacher but also the inclusion of a broader educational system. Lewis encouraged how it could happen by describing how it can happen by discussing the five lanes that the lesson study can take, i.e. 1) carrying the standard objective of the education of real nature in the classroom. 2) encourages Improvement with the database. 3) targets the achievement of various qualities of students

influencing learning activities. 4) creating fundamental demands for increased learning and 5) upholding the value of teachers (Lewis, 2002).

3. Methodology

This study uses a qualitative approach that is designed to use lesson study in modelling of professional capability (PKP) practice in student S1 PGSD-UT (Primary School Teacher Education Department in Open University). Qualitative research used by researchers is descriptive-qualitative. This descriptive research aims to describe systematically and accurately the facts and characteristics of the population or about a particular field. The study attempted to explain the situation or incident. The Data collected is purely descriptive and does not intend to seek explanation, test hypotheses, make predictions, or learn implications. The research approaches based on the preliminary study are:

- a. The initial concept of lesson study includes: (1) the components of lesson study as a means, (2) the study of the theory of reflective thinking and attitude, ability, and (3) the condition of the implementation of the PKP modelling guidance.
- b. The design, implementation and reflection of lesson study.

The population in this study was the PGSD-UT Undergraduate teacher/student who enrolled active in Distance learning Program Unit (UPBJJ) Serang 2013. The number of samples was determined by 14 elementary school teacher/student PGSD Undergraduate program who follow the PKP guidance registration period 201 and representing ten different schools. The factors underlying the decision of Distance learning Program Unit (UPBJJ) research sites in Serang, namely:

- a. The character of tenth-semester students who will follow the PKP guiding.
- b. The condition of the schools for students to practice PKP guiding modelling with adequate and affordable lesson study in the district area.
- c. Principals and teachers involved in the study permitted to conduct the research and providing the appropriate time to schedule the planned study.

I am collecting data in the study conducted by observation techniques, learning journals, interviews, and documentaries. An observation technique made with observations on the application process started from the preparatory stage to the development stage of the modelling PKP consolidating guidance with lesson study. Techniques and data collection tools include the search of (a) documents to obtain accurate data on the condition of the teacher partners and students, (b) interviews and questionnaires to explore the understanding of lesson study in PKP practices, (c) observation execution/implementation of lesson study in the application to determine the ability of reflective thinking and attitude of students towards learning. Analysis of the data is adjusted to the data collected, which were analysed by descriptive qualitative, and quantitative as supporting data. Interview guide used to conduct interviews as an additional data source.

Triangulation used in this study is the triangulation method, which compares the research findings obtained from multiple data collection techniques. The study findings

are compared (a) the findings of the observations with the results of the interview, (b) the findings of the observations with documentation of activities, and (c) the findings of interviews with documentation of activities.

4. Result and Discussion

4.1 Modelling Development Lesson Study

How to develop lesson study modelling as an effective approach for professional capability (PKP) practice mentoring?

The result of the researchers' interviews with PKP guidance student indicates that in general administratively they have never done PTK (class action research) in the school and merely perform the PTK (class action research) practice activity as the assignment of the lectures. So, in this case, the PKP guidance student wishes to perform the better and optimised PTK with the hope of a change in the pattern of learning which has been less meaningful in results. However, the biggest obstacle faced regarding the implementation of the PTK on PKP guidance student begins from the incomprehension to design a study in the class by the existing problems.

Lesson study activities are activities conducted by a group of students or teachers and not individual activities. This means that in conducting the lesson study activities involve many people in a learning activity. Therefore it is necessary to do coordination between teachers and school leaders. To get support from the leadership need to have an understanding between the team of lesson study with the leadership.

4.2 Learning Planning Phase (plan)

Activities conducted in the planning stages of learning between, as outlined below:

1. Each lesson group Study Arrange a table of activity plan lesson study for one semester. The table of plan contains a lack of cycles two days and dates (as scheduled), lecture materials, activities (planning, face-to-day learning and observation, reflection). Officers learning device builders, such as Media, Hand out, teachers learning, discussion leaders and descriptions. One cycle consists of the activities of planning, face to face learning and conservation, reflection.
2. This completed lesson study was duplicated for the participants and submitted to the study coordinator for the Faculty/Department for monitoring and Evaluation purposes (Monev).
3. From the table of activities of the lesson study that there is a division of the task of each group members, and then based on the lesson study selected, compiled the study for the first cycle.
4. Learning Implementation Plan (RPP) has fully compiled which a model is of learning according to the focus of the lesson study that has been established. As such, an RPP reader will understand and be able to implement its class learning as conducted by the RPP composer, both in terms of its teaching materials and the order of its presentation.

5. The Learning observation sheet is used by the observer teacher to observe the observation. Observers emphasised on student learning activities as a result of the focus of the lesson study given. Thus, the observation sheet contains essential things from the attention of the lesson study that should be observed. One of the failures of lesson study is less talkative in observing students' learning activities.
6. Learning devices that have been compiled by one/several teachers are discussed together in a group to obtain an agreement and eligibility for the implementation of the learning process.
7. If a learning scenario is needed, it will be shown presented throughout the group.

4.3 Observation phase (do)

The stage does a critical step because this stage of learning design is practised and observed to be seen its effectiveness. The following are outlined some of the activities done in this stage.

- 1) Lecturer/Supervisor 1 appointed (according to the plan that has been drafted) conducts guidance in the class according to the planned lecture plan, while the other teachers in the group observe. The course of the learning process if any additional additives can come from another group or even from an interested leader or community.
- 2) The observer carries an observation sheet and the RPP (Learning Implementation Plan) takes place on the side of the left, right, front or back of the student's seat, which is essential to see the student's face and gestures. Once again that observation emphasised on student learning activities, whether the application of RPP that has been compiled together, students appear to learn with high motivation and enthusiasm, class come alive, or there are students who need special attention, or other important matters relating to the learning process.
- 3) Observers should not intervene during observation, both the model teacher and the student. In more detail, the signs should be considered by the observers to be described as follows:
 - a. Other observers and observers should arrive at least 5 minutes before the study begins, and prepare an observation sheet or a notebook and a pen. If possible, each participant obtains an RPP and MFI/or another learning device that has been reproduced for observers.
 - b. All participants immediately enter the class in order at the specified time. Once entering the room, all the participants and invitations should no longer want to go out of class, stay in class and prepare to observe the learning process.
 - c. Observers immediately occupy such position to be aware of the changing faces and gestures of students while studying. The ideal situation is in front of the students. But if the student has a discussion, the perfect position is in addition to the group.

- d. In the beginning, each observer practised observing one group. In the future, if more than five observations, observers can observe other groups know the class atmosphere as a whole.
- e. Does not help the teacher model in the learning process in any form. For example, participate in LKS division, calm students, etc. Let the teacher do his job independently and free from any one intervention.
- f. Does not help students in the process of learning, such as directing student work. If students ask you (as an inquiring), say that students ask directly to the model teacher.
- g. Does not interfere with the teacher's view of models during learning. If you are approaching a group or in the middle of a class, then suddenly a model teacher wants to give directions in a classical direction then immediately pull over to avoid disturbing the student's view.
- h. Do not interfere with the Konsentaris students in learning, for example talking with other observers, out in the room.
- i. If you want the camera to take pictures of the Flash learning activities should be turned off. Flash camera lights can interfere with or stop the student's concentration of learning.
- j. Do not eat or drink in the room learning.
- k. Focus on observations on students ' learning, not just on teachers ' teaching. Use the available observation sheets. If the observed phenomenon is not listed in the observation sheet, observers may add it.
- l. Observers perform a full observation from the beginning to the end of learning.
- m. In addition to observing students studying, observers also need to pay attention:
 - Classroom management techniques created by teachers.
 - How do teachers streamline learning objectives?
 - How do teachers utilise simple learning media from Lingkungan?
 - How do teacher efforts make students creative?

4.4 Stage of Reflection (Analysing the Results of Observation and Discussing)

After completion of the implementation of the Plan of study and view of live activities conducted reflection, in the following way:

1. Discussion of reflections led by a moderator and if necessary, there is a notulis.
2. The first teacher to implement a learning Plan (master Model) by a moderator was allowed to convey the impression and other things that are deemed necessary in achieving the learning.
3. Observers convey responses or essential things in the implementation of learning that need improvement or need to continue in the next cycle. What the Observer has to say should be based on the results of the analysis of his observations, not just based on theory or opinion.

4. For the implementation of the reflection to go well, it is worth noting the signs to submit comments in the following reflection discussion:
 - a. Comments presented should be focused on the issue of student learning, not on the activities of the teacher who teaches.
 - b. When related to the performance of the submitted suggestion teacher, preferably by multiplying the positive and slight possible negative criticism.
 - c. The comments submitted must be based on observation data during observation, not how the observer should be found. It means to keep away from comments that the teacher model.
 - d. Use a gentle tone and a choice of subtle words.
 - e. Comments submitted should be far from the nature of the patronise or according to his view.
 - f. If you convey data about students studying, then tell them why it happened (this is an interpretation) and how to get out (this is a suggestion for further learning improvement).
 - g. Also, submit a lesson that can be learned from the problem.
5. If there are experts or resource persons present, then be allowed to submit a final comment, to give feedback about the study or process of lesson study.
6. At the end of the activity, the reflection moderator conveyed a summary of the results of the discussion or conclusion that is important. These results are good things to continue and suggestions for improvement as a consideration in drafting the next learning plan.

4.5 Level of Use of Lesson Study

What are the results of the use of the lesson study as an effective modelling for PKP practice mentoring?

The next level of lecture plan will emphasise the focus of the lesson study that has been established and consider the results of reflections in the previous cycle. The next step is to do and see so that the last period is planned.

There is no necessity to infiltrate the activity of the lesson study as in PTK (class action research). But, if the lesson study is carried out on the context of a program that is implemented by the institution or program that is getting sponsorship funding then the end A lesson study should be compiled a report. Each lesson group study can arrange the implementation of the lesson study by the lesson study activities.

To disseminate and improve the quality of lesson study and culinary learning, there should be activity exchange experience in the form of Micro Seminar. In this seminar, in addition to the presentation of the results of the lesson study from each group of lesson study and the harvest, it is essential to give the team the monitoring and evaluation of the faculty level to convey the results of Monev Been done.

From the development and improvement of the implementation of Micro Seminar design on the activities of the PKP report to eliminate the PTK (class action research). Dissemination can be interpreted as "disseminating". Class action research

that has been done by a teacher or prospective teacher is very necessary to be dissemination. The main objective is that the research has been made known by the crowd. PTK's dissemination objectives are generally limited to educators, teacher candidates, and other educational practitioners. With the knowledge that a class action study has been conducted to address a particular issue of learning in the classroom, others who may also have similar problems may try to implement the results PTK was again in his class. Alternatively, modifications, follow-ups, adaptations and so on are related to the results of the PTK (class action research) that have been in the dissemination.

4.6 Dissemination of PTK (Class Action Research) through Micro Seminar in PKP (Professional Capability)

On some occasions, micro-seminar activities can be displayed as an event for the study of class action research conducted by the teacher. The Seminar certainly involved audiences and reviewers. The dissemination objectives (dissemination) of PTK results in the PKP that have been obtained will be fulfilled if the students build a scientific culture in the Scientific Meeting Forum. So that the PKP report that they are stacking will be more meaningful scientifically as a product of scientific work that will also meet the criteria as a scientific work that can be published in Journal form. In implementing Micro Seminar students guidance PKP prepare various materials presentation and communicate the results PTK to other LS group. At the meeting of KKG cluster, Micro seminar PKP can be used as an agenda of the scientific meeting, and it shows that students in PKP guidance can learn and also practice scientific presentation in real and meaningful. From the trial of Micro Seminar in PKP has been designed as follows:

- 1) Student Guidance PKP Group by the review of PKP report based on the course field in Micro Seminar class.
- 2) Each student performs a presentation inside the LS forum and is attended by another LS group.
- 3) Some reviewers provide students with a reversal of the results of a PKP report which first studied the PKP report and reported the results to the students for follow up.
- 4) Students and LS groups can discuss freely in micro seminar meetings
- 5) Technically implementing micro seminars can be set according to the setting of the place and the time of implementation available.

4.7 Evaluation Lesson Study of Teacher/Student Attitude Change

How does the evaluation of the lesson study change the teacher/student attitude?

A general overview of the Lesson Study on the Primary School Teacher Education Department (PGSD) student PKP supervision affects the change in teacher/student attitudes. The result of the shift in teacher/student attitude after doing the lesson study is quite a lot, among them is the spirit of self-criticism, openness to the input of others, the attitude of recognising mistakes, having an open attitude and giving input honestly.

The spirit of self-criticism has been a part of doing reflections honestly to improve self-deprivation. At the end of each hour, group lesson meetings are self-reflection. Students are self-reflection by asking questions, such as: *"Have I tried with all the power?"*, *"Do I remember what material I had to develop to school this week"*, *"Have I done love-based deeds to my friends"*, *"What do I still need to fix?"*. The student reflection is contagious. People who listen to the reflection of other people's nature will begin to question themselves as well, whether he has done the best to do. The habit of self-reflection is one of the key supporting the implementation of lesson study.

Openness to the inputs given by others has grown in students. Various experiences through the lesson study are something that needs to be learnt because usually students feel embarrassed when the learning process is seen by others. Therefore, teachers who can carry out the lesson study are teachers who want to "lifelong learning" and want to get feedback from others.

The teaching teacher is going to admit mistakes. Changes will occur when people want to provide time and effort to make changes because there may be errors. As humans do not escape mistakes, teachers rarely carry out their learning correctly. Through lesson study teachers have the opportunity to slowly improve and improve the learning and also to build a school culture that is on inquiries and improvement. So, teachers/students of PKP guidance can learn from less than perfect learning after designing, implementing and discussing the learning.

Being open to the ideas of others, not trying to find the "genuine" or "pure" thought of the most important is the result of thinking it can encourage learning. In general, lesson study teachers/students guidance PKP does not depart from scratch but start from the existing ones, who do people and maximise themselves on how to continuously improve the process and content of its learning.

Teacher/Student Guidance PKP was willing to give input honestly and respectful. This attitude needs to be developed by PKP teachers/guidance involved in the lesson study. They jointly find ways to avoid two extreme things, "Happy Talk" (where people are ashamed to disagree or to criticise) and "harping" (where people feel and act so as if their ego relies on or will rise if they can impose or humiliate others.)

The critical reversal signifies that the teacher/student of the PKP who gave it respect for the learning. With criticism given they are expected to be progressively evolving because in learning there is to be improved. Conversely, it will be very disappointing when a colleague who is observing our learning does not declare anything.

Lesson study is a coaching model for teachers through collaborative and sustainable study assessments based on the principles of collegiality and mutual learning to build a learning community. Lesson Study is a comprehensive approach to professional learning and supports teachers to become lifelong learners in the effort to develop and improve the quality of learning in the classroom.

Results of evaluation and analysis of the Program Lesson Study in the supervision of PKP shows the linkage between the level of knowledge with the desire of students to utilise the model of mentoring through a Lesson Study as part of the

means of improvement Learning. Students provide a perception of the lesson study program by the characteristics of PKP mentoring and can be developed as supporting the means of PTK. Some of the performance in the lesson study is not optimally used by students, especially at the stage of action (do) because it is less accustomed to collaborative culture. The implementation of the PKP Mentoring model through the lesson study has begun to be alloyed with learning improvement practices, and students can follow their performance patterns without disturbing the teaching and learning process at school.

The lesson study approach in PKP mentoring provides improved student teaching skills, although recognised the approach has a weakness that requires a relatively long time (less enough only eight times tutorial guidance and seven self-guidance) that are currently available. Besides, the gap of this lesson study application is that the student teaching experience can not be evenly applied to each class, as students will be bound to certain classes during a round of practice two cycles of activity. Student teaching competencies are limited to the class's condition, making it possible to be less varied.

5. Conclusion

The implementation of the lesson study in the professional capability (Pemantapan Kemampuan Profesional/PKP) mentoring model should be prepared systematically and in a planned manner. The preparation is primarily a supply of knowledge lesson study in PKP guidance students, supervising lecturers (Supervisor 1), and teacher Tutor (Supervisor 2). The three executors in the PKP program should be given a supply before the guidance of PKP with interactive video lesson study. The implementation of the lesson study consists of several phases, namely (1) forming a group lesson study, (2) determine the focus of the study, (3) Plan A research lesson, (4) The implementation of learning and observation of learning activities, (5) Discuss and Analyse observation results, and (6) Reflections and enhancements. These six stages are implemented in the form of a plan-do-see (reflection) cycle.

Through a lesson study in the PKP guidance program improved teacher teaching skills, improved process quality and learning outcomes, democratic learning development based paradigm constructivism to build mindset Scientific. In the future, there is expected the availability of video recordings (visuals) of PKP practice activities conducted by the master model and the students' work in teaching group to be a source of the significance of the lesson study in the guidance of PKP. Besides, this research needs to be followed up through the study of phenomenology concerning performance supervisor in digging the role and function of.

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