

# Lesson Study With the Application of the Project Based Learning Model to Enhance Student Activity in Designing Learning Devices

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## ABSTRACT

This article studies about application of project-based learning models through lesson study activities. The quality of the learning process can be observed from the learning activities of students. Lack of student activities on learning, causes to lack understanding of the material being taught. Successful learning is learning where students understand about what they do, and therefore through the application of project-based learning model in this lesson study activity, can increase student understanding and become students who are creative, innovative and active. Therefore the researcher tries to explain how to apply the project-based learning model through lesson study in learning. The method used in this research is classroom action research. This paper is a choice of project-based learning models in the learning of learning beneficiaries.

**Keywords:** *Project based learning, lesson study*

## 1. INTRODUCTION

Changes in the current education paradigm are inevitable, these changes require students to have the ability in accordance with the era of industry 4.0. The ability to communicate, work together, think critically and be creative (4C) must be owned by students. Students as the closest part to the industrial world today must have the ability of 4C. the achievement of these skills certainly requires the activeness of students in gaining knowledge. But in learning there are still many students who are less active, so they do not see the learning ability they have.

According to Meier (2000) learning can be defined as the process of turning experience into knowledge, knowledge into understanding, understanding into wisdom, and wisdom into activeness. In active learning can stimulate and develop students' talents, critical thinking and problem solving. Activity is an activity that is both physical and mental, which is doing and thinking as a series that can not be separated (Sardiman, 2001: 98). Successful learning must go through a variety of activities, both physical and psychological activities. Activeness is an important element that must be present in learning.

In increasing student activities in learning can be done by using learning strategies that require the activity of doing something. Greetings one method that can improve learning activities is a project-based learning model (Project Based Learning). In line with Permendikbud Number 103 of 2014 and Permendikbud Number 22 of 2016 is a learning model that highlights activities and creativity, inspires, is fun and has initiative, is student-

centered, authentic, contextual, and meaningful, one of which is a project based learning model.

The project-based learning model is a learning model that can be used to apply knowledge already possessed, train various thinking skills, attitudes, and concrete skills. While in complex problems, learning is needed through investigation, collaboration and experimentation in making a project, as well as integrating various subjects (material) in learning. Project-based learning model (project-based learning), is a learning process that makes project activities as objects of study as well as learning tools. As an object of study, carried out when project activities are used as a source of knowledge in the learning process. The stages of activities in the project, starting from problem determination, planning, implementation, monitoring and evaluation, as well as identification of the results achieved and recommendations for subsequent project activities. Here seen as a cycle of activities that can be used as a source of knowledge in the learning process.

According to the research of Yulianto et al (2017: 453) states that the application of the Project Based Learning learning model combined with school-based Lesson Study can increase the learning activeness of class VII-A students at MTs Sunan Kalijogo Karang Besuki, Klojen Subdistrict Malang City on the subject matter of geographical conditions in an area in a region maps and links between geographical conditions and the state of the population. This research shows that project based learning can improve student learning activities.

Therefore the author is interested in researching on how the application of the Project Based Learning Model based on lesson study in improving learning activities in the course of Sociology teaching planning in the department of sociology. This is because there are still many sociology students who are not active in learning so that in collecting learning tools only 50% of students collect, and 25% are complete in making learning devices.

## 2. METHOD

This research is a class action research conducted collaboratively with lecturers whose class is used as the classroom action research arena. The subjects of this study were students enrolled in the Sociology teaching planning course. According to Luthfian Almash et al (1998: 12) Classroom action research is a form of research that is reflective by taking certain actions in order to improve and / or enhance learning practices in the classroom more professionally. According to Anas Yasin (2011: 6) classroom action research provides teachers with skills in solving specific problems relating to their class. By using research procedures, researching teachers can face challenges in their own learning.

PTK not only aims to increase learning activities in Sociology teaching planning courses, but also to improve the performance of teachers and lecturers in the learning process. In other words, CAR does not only aim to reveal the causes of various problems encountered, but more importantly is to provide solutions in the form of actions to overcome the problem. Thus it can be concluded that CAR is a study conducted to overcome the problems that exist in the learning process and efforts to improve the process and learning outcomes.

This Classroom Action Research is carried out by integrating Lesson Study. The study was conducted in 2 cycles, where in each cycle there were four stages, namely planning, implementation, observation, and reflection. In each open class, Lesson Study is carried out which includes the plan, do, and see stages. The presence of researchers in this study is as an observer who designs learning activities or actions carried out together with the lesson study team and model lecturers played by lecturers who teach sociology-anthropology teaching planning courses.

This research was conducted in the Department of Sociology in the course of teaching planning Sociology-Anthropology (semester 5 of the 2019/2020 academic year).

Based on the research objectives that will illustrate the implementation of Lesson Study through Project Based Learning in improving learning activities in the Sociology-Anthropology teaching planning course in the Department of Sociology. To get data at each meeting, researchers used observation sheets where the variables studied were:

1. Visual activities such as reading, writing, conducting experiments, and demonstrations.
2. Oral activities (oral activities) such as storytelling, poetry reading, question and answer, discussion, singing.

3. Listening activities, (listening activities) such as listening to the teacher's explanation, lecture, direction.
4. Motor activities such as gymnastics, athletics, dancing, painting,
5. Writing activities (writing activities) such as writing, making papers, making letters.
6. Drawing activities, such as drawing, making graphics, maps and diagrams.
7. Mental activities (Mental activities), such as responding, remembering, solving problems, analyzing, looking at relationships, making decisions.
8. Emotional activities, such as being interested, feeling bored, excited, excited, passionate, brave, calm, and nervous. (Sardiman, 2001: 99)

The study population was all students of the Anthropology Sociology teaching planning course. The total number of 2017 class year students enrolled in the July-December semester. The research technique used is total sampling technique, meaning that all populations are sampled as research subjects.

The action plan is a description of the real steps that will be in the study. According to Lewin (1946) there were 4 stages that were passed in this class action research, namely: (1) Planning, (2) Implementation, (3) Observation, (4) Reflection.

The instruments used in this study consisted of observation sheets and field notes. The observation sheet is used to find out the increase in student learning activities during the learning process

Field notes function to record events during learning activities. Field notes are used to record things that are not recorded by the observation sheet. The goals noted are related to the learning process each time the meeting and the results are then discussed.

Data filling observation sheets of student learning activities were analyzed in the form of percentages. Data on the number of students involved in each activity is presented with the formula:

$$P = \frac{F}{N} \times 100\%$$

Information:

P = Student activities

F = frequency of active students

N = the total number of students studied. (Sudjana 1991: 131)

Increased student activity in teaching and learning can be seen by comparing the results of observations of cycle I and observations of cycle II. To determine the percentage of student activity scores in lesson study learning through Project Based Learning, rating classes are used according to Arikunto (2009: 33). Based on these criteria, the indicators of the success of student activities in this study are: 1) student sociology learning activities in the sufficient category. 2) Activities that are less relevant to learning in the sufficient category.

## 3. RESULTS AND DISCUSSION

The results of research in the application of project based learning based on lesson study in increasing student

activities in the Sociology teaching planning class, student activeness was obtained through student activity cycle sheets cycle 1 and cycle 2.

Table 1 above explains that the application of the project based learning model to the activeness of learning has a significant impact as seen from the two cycles of research implementation above. There was a significant increase in each indicator of learning activeness with this shows that in the first cycle the students were still less active in learning sociology teaching planning. In the second cycle it appears that there is an increase in each indicator of learning activeness.

Table.1 Student learning activeness can be seen from several indicators:

| No | Indikator Keaktifan  | Persentase |           |
|----|--|------------|-----------|
|    |  | Siklus I   | Siklus II |
| 1  | Mahasiswa membaca bahan ajar/materi                                | 75         | 87.5      |
| 2  | Mahasiswa terlibat dalam tanya jawab                               | 70         | 80        |
| 3  | Mahasiswa terlibat dalam diskusi                                   | 80         | 80        |
| 4  | Mahasiswa mendengarkan penjelasan dosen                            | 70         | 70        |
| 5  | Mahasiswa mengamati penjelasan dosen                               | 70         | 80        |
| 6  | Mahasiswa menanggapi penjelasan dosen                              | 45         | 70        |
| 7  | Mahasiswa menemukan pemecahan masalah dari masalah yang ditugaskan | 55         | 70        |
| 8  | Mahasiswa menganalisa tugas yang diberikan                         | 50         | 70        |
| 9  | Mahasiswa membuat perangkat pembelajaran                           | 50         | 70        |

Inactivity in learning in the sociology teaching planning class, not only physical involvement but also mental. This can be seen from the motivation of students in making sociology learning tools. Learning activity can be interpreted as an activity carried out by students in the implementation of the learning process, where students work or play a role active in learning in class, so that the student gain experience, knowledge, understanding and other aspects of what has been done.

#### 4. CONCLUSION

The project based learning model is learning that emphasizes the role of students finding their own solutions to problems, and demands a high level of thinking in which students are required to make learning tools. The

application of the project based learning model increases the activeness of students in the learning process, so that the process of constructing learning is experienced by students.

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