



Research Paper

Application of the Problem Solving Learning Model through Lesson Study Activities to Increase the Activeness and Social Studies Learning Outcomes of Class IX B Students at SMP Negeri 3 Belawa

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ABSTRACT: The purpose of this study is to describe the Problem Solving Learning Model through Lesson Study Activities to Improve Social Studies Activity and Learning Outcomes of Class IXB Students at SMP Negeri 3 Belawa. This study used a classroom action research approach using a cycle strategy. The object of research in this study is various activities that occur in the classroom during the learning process. This research was carried out with collaboration between researchers, social studies subject teachers and involved student participation. Data sources used in this class action research include informants, places or locations, events and archives. Data collection techniques are carried out by observation, interviews, tests and documentation. The research procedure includes the following stages: (1) problem identification, (2) preparation, (3) preparation of action plans, (4) implementation of actions, (5) observation, (6) preparation of reports. Each cycle is carried out in three meetings with an allocation of time for each meeting of 2x40 minutes. Based on the research that has been done, it can be concluded that there is an increase in social studies activeness and learning outcomes through the application of problem solving learning models through Lesson Study activities. This is reflected in several indicators as follows: (1) student activeness showed an increase from 71% to 74% (cycle I), in cycle II 85%. (2) During the learning process, students showed their activeness as many as 6 students in cycle I while in cycle II as many as 22 students increased.

KEYWORDS: Problem Solving, Lesson Study, Activeness and Learning Outcomes

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I. INTRODUCTION

Education is one of the needs for every human being. With education, it is expected to be able to improve the ability and quality of human resources in Indonesia in facing the free market era. In improving the quality of education, this cannot be separated from the learning aspect. This is in accordance with the objectives of education that have been mentioned in Law No. 20 of 2003, concerning the National Education System which explains that National Education functions to develop abilities and shape the character and civilization of the nation, aims to develop the potential of students to become human beings who believe and are devoted to God Almighty, have noble character, healthy, knowledgeable, capable, creative, independent, and a democratic and responsible citizen. Here it is clear that to improve quality human resources, both physical and mental, good development of good education is also needed. Improving the quality of education can be realized in learning that is directed to help students master the abilities learned in order to achieve the expected goals.

The quality and success of learning is greatly influenced by the ability and accuracy of teachers in choosing and using learning methods or models, there are various methods used by educators to deliver lesson material including lecture methods, questions and answers, inquiries, discussions, laboratories and so on. Choosing and determining teaching methods teachers must pay attention to factors that affect the teaching and learning process.

The Problem Solving learning model is a learning model that emphasizes the logical resolution of a problem. This learning model encourages students to think systematically by confronting problems related to life in society, if students are trained with this learning model they are expected to be able to use it to solve

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problems that exist in society, besides that problem solving is very important for students and their future. Learning experts agree that problem-solving abilities within certain limits can be shaped through the field of study and disciplines taught. SMP Negeri 3 Belawa is a public junior high school located in Wele Village, Belawa District, Wajo Regency. This junior high school has a variety of inputs but basically the purpose of learning is to change students from not knowing to knowing. The teachers at SMP Negeri 3 Belawa always try to educate students so that they can benefit the community.

The problem solving learning model is a model that prioritizes problem solving in learning activities to strengthen the reasoning power used by students in order to get a more basic understanding of the material presented. As stated by Pepkin (Shoimin, 2017) that the problem solving method *is a learning model that focuses on teaching and* problem-solving skills followed by strengthening skills. *Problem solving* in learning plays a very important role.

II. RESEARCH METHODS

This type of research is quantitative research. The location of the research was carried out at SMP Negeri 3 Belawa, Belawa District, Wajo Regency, South Sulawesi Province. The research was conducted from September to December 2022. The subjects in this study were students of class IXB SMP Negeri 3 Belawa, Belawa District, Wajo Regency, South Sulawesi Province, who were registered in the odd semester of 2022/2023, a total of 28 people consisting of 10 men and 18 women.

The data collection techniques used are; 1. Observation, this technique is used to collect data on student activities during learning; 2. Teacher teaching activity sheet; 3. Learning outcomes tests to collect data on student learning outcomes; 4. Documentation in the form of photos and videos of the learning process.

Data Analysis Techniques The data analysis method in this study used a descriptive method by comparing the results of the final test scores in cycle I with cycle II. The data processing steps are as follows: 1. recapitulate the test values at the end of cycle I and cycle II.; 2. calculate the average score or percentage of cycle I and II tests to determine the improvement of problem-solving skills; 3. Assessment The implementation of learning syntax and lesson study The success of the implementation of learning syntax which includes teacher and student activities and the implementation of lesson study can be calculated using the following formula.

$$\text{Learning implementation percentage} = \frac{\sum \text{indikator yang muncul}}{\sum \text{seluruh indikator}} \times 100\%$$

Table 1. Level of Problem Solving Through Lesson Study Activities

Learning implementation percentage range (%)	Implementation rate
81 – 100	Fits perfectly
61 – 80	Appropriate
41 – 60	Quite suitable
21 – 40	Less suitable
10 – 20	Very unsuitable

Source: Suharsimi Arikunto 2005

Problem-solving skills, The percentage of problem-solving skills for each indicator can classically be calculated by the following formula.

1. Persentase *defining the problem* = $\frac{SA}{N. XA. K} \times 100\%$
2. Persentase *developing a plan to solve the problem* = $\frac{SB}{N. XA. K} \times 100\%$
3. Persentase *collecting and analyzing information* = $\frac{SC}{N. XA. K} \times 100\%$
4. Persentase *interpreting findings and solving the problems* = $\frac{SD}{N. XA. K} \times 100\%$

Information:

SA = sum of average scores on the defining indicator statement problem

SB = the average score on the developing a plan indicator statement to solve the problem

SC = sum of average scores on collecting and indicator statements analyzing information

SD = the average score on the satisfaction indicator statement

- XA = number of indicator statements defining the problem
XB = number of indicator statements developing a plan to solve the problem
XC = number of indicator statements collecting and analyzing information
XD = number of indicator statements interpreting findings and solving the problems
N = number of students
K = maximum score of a statement

Based on the calculation formula above, data will be obtained in the form of the percentage of achievement of each indicator classically. The data is then categorized based on Table 3.2. next.

Table 2. Percentage of Problem Solving Skills

Problem-solving skills	Category
Very good	3-4
Good	2-3
Enough	1-2
Less	0-1

Source: Suharsimi Arikunto 2005

III. RESULTS AND DISCUSSION

The Role of the Problem Solving Learning Model through Lesson Study activities to Increase Student Activeness

The results of the study are presented in the form of graphs, tables, or descriptive. Analysis and interpretation of these results is necessary before they are discussed. For experimental research, the order of presentation of results is adjusted to the research hypothesis, while for qualitative research it is adjusted to the research question.

Based on the results of observations on the implementation of the learning process before applying the *Problem Solving* learning model through *Lesson Study* activities, there are several problems. The problems that arise are the lack of student participation in participating in learning activities in class and the achievement of suboptimal learning achievement. Student activities in the classroom during the learning process only listen to explanations from the teacher and answer teacher questions if appointed. During KBM students tend to be passive and there are only a few students who ask the teacher and generally these students are smart students.

Social studies subjects are faced with many concepts and facts, therefore a learning model is needed that is in accordance with the reality that exists in society. The *Problem Solving* learning model through *Lesson Study* activities is a learning model that shows the ability of a directed thinking process to produce ideas, ideas or develop solutions to problems faced by achieving the desired goals. *Problem solving through Lesson Study activities* is a process to find a problem faced in the form of new rules of higher level. Every time a problem can be solved means learning something new and can be used to solve a new problem. The problem-solving process provides opportunities for students to be actively involved in finding information related to the material.

The *Problem Solving* learning model through *Lesson Study* activities has several advantages: **First**, optimizing student participation because it provides opportunities for each student to show their participation to others. **Second**, this model teaches students to be more independent in doing the questions given so that it can arouse students' confidence. **Third**, there are discussions in the form of small groups so that it is very effective to make it easier for students to understand the material and solve a problem

The findings of researchers in teaching and learning activities before applying the *Problem Solving* learning model through *Lesson Study* activities include:

- The teaching and learning process in class is still dominated by listening to the teacher's explanation and recording the subject matter given by the teacher.
- Learning media used only in textbooks
- During teaching and learning activities, students tend to be passive, rarely do students ask questions or express opinions about the material presented.

Analysis and reflection

Based on the observations that have been carried out, it can be seen that the application of the *problem solving* learning model can increase student activity between before and after the implementation of the *Problem Solving* learning model through *Lesson Study activities* in all aspects, namely *Oral Activities*, *Mental Activities*, *Listening Activities* and *Writing Activities* reach 100%. This means that all aspects of student activeness have achieved action achievement performance indicators. When viewed from the achievement of indicators in terms of student achievement, all students managed to get scores above 7.0, in other words, 100% of students have achieved the planned performance indicator of 75%. After analyzing and processing the data from observations and reflections of cycle II, it was concluded that both performance indicators of achieving

research objectives, both seen from the variables of activeness and variables of student learning achievement were met. Therefore, it can be concluded that the class action has succeeded so there is no need for the next cycle of corrective actions.

Application of *Problem Solving Learning Model* through *Lesson Study* activities to Improve Student Achievement conducted by teachers.

Based on the data obtained by the researcher, the average initial score (taken from the report card) before the application of the *Problem Solving* learning model through *Lesson Study activities* was 59.89. Although the average score of students is at odds with the complete limit value or the minimum limit of 75, the data obtained shows that student learning achievement is less than optimal. This is shown from 28 students, 16 students scored below 75, while those who got a score of 75 were achieved by 7 children, 80 were achieved by 3 children and 90 were achieved by 2 children. Based on the data, it shows that only 79.87% of students achieved grades above 75 and the rest, 20% scored below the completion limit.

Presentation of material using the *Problem Solving* learning model through *Lesson Study* activities can improve student achievement. This is evident in the first cycle, students' test scores ranged from 65 - 100 with an average score of 73. There was an increase in value compared to before the application of the *Problem Solving* learning model through *Lesson Study* activities, which was as large as while in cycle II the average score was 79. In this case, there was an increase in value compared to before the application of the *problem solving* learning model, which was 6. In the implementation of cycle I and cycle II all students get scores above 75. thus both cycle I and cycle II have achieved 100% of the planned 75%.

The results of the implementation of actions in cycles I and II show that the application of the *Problem Solving* learning model through *Lesson Study activities* can increase student activeness and achievement in the Integrated Social Studies training course. The results of this study are in accordance with the opinion of Robert E. Slavin, et al (2009) who suggest that the *Problem Solving* learning model through *Lesson Study* activities is learning that motivates students to support and help each other in mastering the abilities taught by the teacher and the ability to solve problems, so that students can participate in groups and get progress points that can improve students' academic achievement.

Table 3. Completeness of Student Learning Outcomes Cycle I

Criterion	Number of Students		Percentage
	Before Application	Cycle I	Cycle I
Complete	6	12	43%
Incomplete	22	16	57%

(Source: Processed Primary Data, 2023)

Table 4. Completeness of Student Learning Outcomes After Cycle II

Criterion	Number of Students		Percentage
	Cycle I	Cycle II	Cycle II
Complete	12	22	79,87%
Incomplete	16	6	21,4%

(Source: Processed Primary Data, 2023)

Table 5. Completeness of Student Learning Outcomes

Criterion	Number of Students			Percentage		
	Before Application	Cycle I	Cycle II	Before Application	Cycle I	Cycle II
Complete	6	12	22	21,4%	43%	79,87%

(Source: Processed Primary Data, 2023)

Based on the graph above, the application of the *Problem Solving* learning model through *Lesson Study* activities increases student achievement, this is shown by the increase in class average scores. Before applying the *Problem Solving* learning model through *Lesson Study activities*, the class average was 59.89, but after applying the *Problem Solving* learning model through *Lesson Study* activities, the class average became 72, where all students scored above 75 as many as 22 children. Thus, in the first cycle, the performance indicator of achieving action objectives has not been achieved, which is 70%. In cycle II 22 children scored above 75 while 6 children scored below 75, an indicator of 100% achievement in the second cycle.

In cycle II, the results of student activity level in the aspects of *Visual Activities* 100%, *Oral Activities* 100%, *Listening Activities* 100% and *Writing Activities* reached 100%. This means that all aspects of student

activeness have achieved action achievement performance indicators. When viewed from the achievement of performance indicators in terms of student achievement, in cycle II, 22 students scored above 75. In other words, 100% of students have achieved the planned performance indicators.

The results of this study support the results of previous research conducted by Endy Joko Setiyono (2003) in his research entitled *The Effectiveness of Using Problem Solving Learning Methods through Lesson Study Activities to Increase the Activeness and Social Studies Learning Outcomes of Class IXB Students at SMP Negeri 3 Belawa, Academic Year 2022/2023* concluded that the application of *the Problem* learning method Solving through Lesson Study Activities can increase student participation, learning activity and student achievement.

Classroom Action Research is carried out in two cycles. Each cycle is carried out in four stages, namely: (1) action planning, (2) action implementation, (3) observation and interpretation, (4) action analysis and reflection. The description of research results from cycle I to cycle II can be explained as follows.

Before carrying out the first cycle, researchers conducted an initial survey to determine the conditions in SMP Negeri 3 Belawa. Based on the survey results, researchers found that the activeness and learning achievement of grade IX students in social studies subjects were still not optimal. Therefore, researchers held discussions with social studies teachers and found solutions to overcome these problems, namely by applying the *Problem Solving* learning model through *Lesson Study Activities*.

Improving Social Studies Learning Outcomes of Class IXB Students of SMP Negeri 3 Belawa After Conducting Lesson Study Learning

Based on the description above, it can be concluded that Classroom Action Research (PTK) the application of the *Problem Solving* learning model through *Lesson Study* Activities as an effort to increase the activeness and learning outcomes of grade IX B students in social studies subjects at SMP Negeri 3 Belawa for the 2022/2023 academic year is successful and can be accounted for the results. This is because PTK has been carried out in accordance with research procedures and applied validation techniques as appropriate. Thus the data obtained can be accounted for as it should.

CONCLUSION

a. Application of Problem Solving Learning Model through Lesson Study activities can Increase Student Activeness

Based on the results of research observations, it can be concluded that the application of the *Problem Solving* learning model through *Lesson Study* activities can increase student activeness during learning. This is shown by changes in student attitudes in learning, including better interaction and cooperation between students, students have more courage to express ideas and opinions in front of the class. The center of learning is no longer on the teacher. Students are required to actively seek information and must be able to exchange ideas.

b. Application of Problem Solving Learning Model through Lesson Study activities can Improve Student Learning Achievement

Based on data in the form of pre-observation scores and after research, it can be concluded that the application of the *Problem Solving* learning model through *Lesson Study* activities can increase student achievement.

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