

The Influence of Problem Based Learning Model on Social Attitudes and Collaboration Skills of Fifth Grade Students in Social Sciences Subject

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Abstrak

Pembelajaran IPS masih berpusat pada guru, oleh karena itu perlu adanya model pembelajaran inovatif yang dapat menumbuhkan keterampilan kolaborasi dan sikap sosial siswa. Tujuan penelitian ini adalah untuk menganalisis pengaruh model pembelajaran berbasis masalah terhadap sikap sosial dan keterampilan kolaborasi. Penelitian ini termasuk dalam penelitian eksperimen semu. Jumlah sampel yang digunakan dalam penelitian ini adalah 44 siswa, terdiri dari 21 siswa sebagai kelas eksperimen. Variabel bebasnya adalah model pembelajaran berbasis masalah. Sedangkan variabel terikatnya adalah sikap sosial dan keterampilan berkolaborasi siswa. Metode pengumpulan data pada penelitian ini menggunakan metode angket dan metode observasi. Pengujian hipotesis menggunakan analisis Manova. Hasil penelitian menunjukkan bahwa 1) terdapat pengaruh yang signifikan model pembelajaran berbasis masalah terhadap sikap sosial. 2) Terdapat pengaruh yang signifikan model pembelajaran berbasis masalah terhadap keterampilan berkolaborasi. 3) Secara simultan terdapat pengaruh yang signifikan model pembelajaran berbasis masalah terhadap sikap sosial dan keterampilan berkolaborasi pada konten IPS.

Kata Kunci: Problem Based Learning, Sikap Sosial, Keterampilan Kolaborasi

Abstract

Learning social science is still centered on the teacher, therefore it is necessary to have an innovative learning model that can foster collaboration skills and social attitudes of students. The purpose of this study was to analyze the effect of the problem based learning model on social attitudes and collaboration skills. This research is included in the quasi-experimental research. The number of samples used in this study were 44 students, consisting of 21 students as the experimental class. The independent variable was the problem-based learning model. While the dependent variable is social attitudes and students' collaboration skills. The data collection method in this study used the questionnaire method and the observation method. Hypothesis testing using Manova analysis. The results of the study show that 1) there is a significant influence of the problem-based learning model on social attitudes. 2) There is a significant effect of the problem-based learning model on collaboration skills 3) Simultaneously, there is a significant effect of the problem-based learning model on social attitudes and collaboration skills of social studies content.

Keywords: Problem Based Learning, Social Attitudes, Collaboration Skills

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1. INTRODUCTION

Education is one of the demands of human life. The government requires its citizens to have at least 12 years of education or at least graduate from high school (Miller & Krajcik, 2019; Oschepkov et al., 2022). This is done by the government so that ignorance and poverty levels can be minimized. With education, it is hoped that citizens will get better jobs and of course it will affect their level of income. As one of the important factors in determining the survival of human life, it is very important that this education gets special attention from the government (Dreer et al., 2017; Shirazi & Heidari, 2019). Social studies learning can equip students to solve problems related to individuals, society, the environment, and nationality based on changing times. IPS learning is needed to mature students to achieve success in

social life. IPS learning is also expected to be able to train students to develop abilities and skills such as communicating, adapting, synergizing, working together, even competing in accordance with existing manners and norms (Harisantoso et al., 2020; Rahayu et al., 2019). The results of the study can be explained as follows: the role of social studies teachers in improving the honest, disciplined, and responsible character of students in learning is as a motivator, corrector and mentor, initiator, facilitator, evaluator, demonstrator, organizer and informer (Rapoport & Yemini, 2020; Tejedor et al., 2019). In order to be able to develop students' social skills in social studies subjects, social studies teachers must 1) improve the quality of learning through education and training, 2) develop a learning implementation plan by determining learning objectives and models that can develop social skills. IPS as one of the contents that can foster students' social attitudes and collaboration skills is expected to be able to solve these problems.

Social attitudes are formed from the existence of a social interaction that occurs between individuals and their social environment. The process of forming social attitudes can be done in two ways, namely by habituation and modeling. In the habituation pattern, the teacher can train students through learning in groups, both small groups and large groups (Islam et al., 2022; Made et al., 2022). The more often students interact with their group friends, the social attitudes will automatically be formed. In this interaction students will be able to respect other people better, learn to understand the character of their friends, communicate easily, and so on. Indirectly, this interaction causes students to get used to the expected social attitudes. As for the social attitudes that should be familiarized according to the indicators in this study, namely: honesty, tolerance, courtesy, discipline, and responsibility (Borch, 2019; Tharikh et al., 2016). The modeling pattern can usually be done by the teacher when delivering material that contains moral values. The ability of elementary school children who are still in the phase of imitating something they see is very strong, so they must be given good modeling. Teachers in schools should set an example of good behavior to their students. However, the modeling process does not always only come from the teacher, but also with friends or story characters that students like (Narut & Nardi, 2019; Sary, 2018). That is why it is very necessary to do group learning so that students can imitate the good behavior of their peers. So that the problem-based learning model is suitable for social studies learning.

Collaboration skills emphasize more on the importance of a problem development in the learning that is carried out. Learning activities through an intellectual problem solving in the social aspect become more meaningful for students. This collaboration causes students to work together and benefit one another (Mohamed, Z. M., Abdul Majid, A. H., & Ahmad, 2010). When students exchange ideas with one another, that's where collaboration skills can be created. Collaboration can also be referred to as a skill that is flexible, effective and fair to complete collective tasks with groups (Al Mamun et al., 2022; Stehle & Peters-Burton, 2019). Thus, the application of collaboration can minimize differences in thoughts, skills, in providing suggestions during discussions. Collaboration can also serve as the basis for student relationships and lifestyles in terms of their obligations to their actions in learning abilities and respect between group members, to achieve common goals (Muhali, 2019; Sukardi, 2013). The ability of collaboration can be seen by providing several problems, how the process of determining goals, making a design, how to realize and choose a strategy, trying to find solutions, how to improve plans, and so on.

In the 2013 curriculum, especially class V, which is still thematic, it causes that sometimes the learning given does not touch all of its content. This is due to the inappropriateness of the learning activities arranged by the teacher in the thematic learning. Sometimes social studies content is only touched by rote memorization or reading student books by themselves without getting special attention from the teacher. Another fact that

occurred in cluster I Seririt District is that there are still obstacles in cultivating social attitudes and collaboration skills of elementary school students. This is consistent with the results of interviews with elementary school teachers and direct observations in several schools. The learning is still centered on the teacher. The teacher explains the material more than facilitating students with activities that require problem solving, especially on social studies content. In dealing with these problems, it is necessary to have an innovative learning model that can foster collaboration skills and social attitudes of students. The learning model that is able to grow these two variables is the problem based learning model. Previous study states that the Problem Based Learning learning model is a learning model that involves students to play an active role in solving problems using several stages of the scientific method so that students are expected to have the ability and skills to solve problems (Suryani et al., 2020). The problem based learning learning model demands the creativity of students which is obtained from various interactions and experiences in learning. The Problem Based Learning learning model can improve aspects such as student activity in the learning process, cognitive learning outcomes, problem solving abilities, and improve teacher performance during the learning process (Dopo & Ismaniati, 2016; Zuryanty et al., 2019). These results were strengthened by other studies which stated that the Problem Based Learning (PBL) learning model had a positive effect on students' social attitudes in mathematics in fifth grade students at SD Gugus Singosari, Pekutatan District, Jembrana Regency. Suggestions for further research are that it is hoped that the results of this research can be reused in other lessons. Student collaboration skills by implementing the Problem Based Learning learning model can be increased as seen from student initiatives in developing their skills and knowledge. Development of student attitudes by cultivating student attitudes-becoming facilitators within themselves (Erna & Hafandi, 2022; Soraya, 2018).

In line with that, the results of research on the effectiveness of the Problem Based Learning learning model in learning were also carried out by several researchers. The Problem Based Learning learning model has a positive and significant effect on increasing the learning concentration of Hikmah II Yapis Elementary School students, Jayapura City, Papua Province in Integrated Thematic Subjects in terms of Learning Outcomes (Ernawati, 2023). In PTK there was also an increase in mathematics learning outcomes after the implementation of the Problem Based Learning (PBL) model. The percentage of complete learning outcomes obtained by students prior to conducting this research was 33%, then increased in cycle I to 72% and increased again to 86% in cycle II (Oktaviana, Ana, 2018). In the learning process the problem based learning model requires students to be able to be actively involved and think critically in solving problems, the maximum learning process can have a positive impact on student learning outcomes (Arifin et al., 2019; Sulistyaningrum et al., 2019).

Based on several studies and also the background of the problems, this study analyze the effect of the problem-based learning model on social attitudes and collaboration skills on social studies content in class V Cluster I Seririt District students. The purpose of this study was to analyze 1) the effect of the problem-based learning model on the social attitudes of IPS content in class V Cluster I Seririt District students, 2) the effect of the problem-based learning model on social studies content collaboration skills in class V Cluster I Seririt District students , and 3) the effect of the problem-based learning model on social attitudes and collaborative skills of social studies content in class V Cluster I Seririt District students simultaneously.

2. METHODS

This research is included in the quasi-experimental research (quasy experimental). It is called a quasi-experiment because not all variables that appear under experimental conditions can be strictly regulated and controlled. The design chosen was the posttest only control group design. In the posttest only control group design, the two groups, both experimental and control, were not randomly selected. The two groups were made a comparison. The class that became the experimental group was given treatment while the class that became the control group was not given treatment (Sugiyono., 2014). The first group, which is the experimental class, is given treatment in the form of problem-based learning, while the second group is the control class, which is treated in the form of social studies learning using conventional learning models. The population in this study were all students of class V Cluster I Seririt District, totaling 126 students. The number of samples used in this study were 44 students, consisting of 21 students from SDN 1 Joanyar as the experimental class, and SDN 3 Kalianget 23 Orang as the control class. There is one independent variable and two dependent variables in this study. The independent variable is the problem-based learning model. While the dependent variable is social attitudes and students' collaboration skills. The data collection method in this study used the questionnaire method and the observation method. The questionnaire method was used to collect data on students' social attitudes, while the observation method was used to collect data on students' collaboration skills. The instruments used in this study were: 1) Questionnaires of social attitudes, and 2) observation sheets of students' collaboration skills. After the data is collected, proceed to the stage of the research data analysis method. Hypothesis testing using Manova analysis. Before the Manova test is carried out, a requirements analysis test is first carried out. The analysis requirements test used is: 1) data distribution normality test, 2) variance homogeneity test, and 3) correlation test between dependent variables.

3. RESULTS AND DISCUSSION

Result

The data collected in this study are data on social attitudes and data on collaboration skills of students who take part in problem-based learning and conventional learning models. Based on the results of the descriptive analysis that has been done, the results are obtained is show in Table 1.

Table 1. Results of Descriptive Analysis

Statistics	Social Attitude Experiment	Experiment Collaboration Skills	Control Social Attitudes	Control Collaboration Skills
Means	127.52	18.61	118.35	16.48
Median	127	19	117	17
Mode	127	19	115	18
Standard Deviation	4.62	3.17	4.49	1.75
Variance	21.36	10.05	20.15	3.08
Range	19	11	17	6
Minimum	118	13	111	14
Maximum	137	24	128	20
Total	2678	391	2722	379

Based on [Table 1](#), it is known that: 1) The social attitudes of students who participate in learning by applying the problem based learning model get an average = 127.52, median = 127, mode = 127, standard deviation = 4.62, variance = 21.36, Range = 19, Minimum score = 118, and Maximum score = 137. 2) Collaboration skills of students who participate in learning by applying the problem based learning model get an average = 18.61, median = 19, mode = 19, Standard Deviation = 3.17, Variance = 10.05, Range = 11, Minimum score = 13, and Maximum score = 24. 3) Social attitudes of students who take part in learning by applying conventional learning models get an average = 118.35, median = 117, mode = 115, Standard Deviation = 4.49, Variance = 20.15, Range = 17, Minimum score = 111, and Maximum score = 128. And 4) Collaboration skills of students who participate in learning by applying learning models conventionally get mean = 16.48, median = 17, mode = 18, standard deviation = 1.75, variance = 3.08, range = 6, minimum score = 14, and maximum score = 20.

Prerequisite test

Based on the prerequisite testing that has been done, the following results are obtained. Based on the normality test of data distribution that has been carried out, the results obtained is show in [Table 2](#).

Table 2. Data Distribution Normality Test Results

Variable	Group	Kolmogorov-Smirnov		
		Statistic	df	Sig.
Social attitude	Experiment	0.117	21	0.200
	Control	0.181	23	0.058
Collaboration Skills	Experiment	0.119	21	0.200
	Control	0.155	23	0.161

Based on [Table 2](#) show the normality test of data distribution that has been carried out, all significance is greater than 0.05, so it can be concluded that all data in this study are normally distributed. Based on the variance homogeneity test that has been carried out, the results are obtained is show in [Table 3](#).

Table 3. Variance Homogeneity Test Results

Variable	Levene Statistic	df1	df2	Sig.
Social attitude	0.001	1	42	0.974
Collaboration Skills	0.084	1	42	0.810

Based on [Table 3](#) show the variance homogeneity test that has been carried out, all significance is greater than 0.05, so it can be concluded that all data in this study are homogeneous.

Correlation Test between Dependent Variables

Based on the correlation test between the dependent variables that has been carried out, the following results are obtained as show in [Table 4](#).

Table 4. Correlation Test Results Between Dependent Variables

Group	Pearson Correlation	Sig. (2-tailed)	Information
Experiment	0.431	0.051	Not correlated
Control	-0.213	0.330	Not correlated

Based [Table 4](#) show the correlation test between the dependent variables that has been carried out, all significance is greater than 0.05, so it can be concluded that all data in this study are not correlated. Once it is known that all the data in this study have met the analysis requirements test, then proceed with hypothesis testing. Based on the hypothesis testing that has been done, the following results are obtained. There is a significant influence of the learning model *problem based learning* on the social attitudes of IPS content in class V Cluster I Seririt District students, with an F-count of 44.597 and a significance of 0.05. There is a significant influence of the learning model *problem based learning* on social studies content collaboration skills in class V Cluster I Seririt District students, with an F-count of 7.864 and a significance of 0.05. Simultaneously, there is a significant influence of the learning model *problem based learning* on social attitudes and collaborative skills of IPS content in class V Cluster I Seririt District students, with an F-count of 23.013 and a significance of 0.05.

Discussions

Based on the results of data analysis, there are several findings obtained. *First*, students who are taught by conventional learning have lower social attitudes and collaboration skills compared to students who are taught by learning model *problem based learning*. This can be seen from the comparison of the results of descriptive data analysis, namely 1) The social attitudes of students who take part in learning by applying a learning model *problem based learning* get an average = 127.52 while students who study with conventional learning get an average of 118.35. 2) Collaboration skills of students who participate in learning by applying learning model *problem based learning* get an average = 18.61, while students who take part in learning with conventional learning models get an average = 16.48. From these results it can be seen the gap between the two models used. The cause of conventional learning is lower than the learning model *problem based learning* is that conventional learning still tends to make students passive. Conventional learning is learning that is still traditional or learning that has often been applied. Previous study argues that the delivery of material in conventional learning is mostly done through lectures, questions and answers, and ongoing assignments ([Ibrahim-González & Noordin, 2012](#)). Learning activities in the classroom are still centered on the teacher (*teacher centered*). This causes the social attitudes and collaboration skills of students tend to be lower. Social attitudes and collaboration skills demand learning that involves students actively in groups. The teacher in learning is only a facilitator. Learning activities should be carried out by students with their colleagues so that indirectly students' social skills and collaboration will be trained.

Second findings, there is a significant influence of the learning model *problem based learning* on the social attitudes of IPS content in class V Cluster I Seririt District students, with an F-count of 44.597 and a significance of 0.05. Social attitudes have a significant influence caused by model learning *problem based learning* because in problem-based learning it provides real problems to students and as a context so that students can think critically and have problem-solving skills ([Dharma & Siregar, 2015](#); [Takaria & Talakua, 2018](#)). On model *problem based learning* which has steps 1) preparing the needs of students through presenting topics or problems. Then 2) look for solutions to the problems given from various sources either independently or in groups. 3) Delivering solutions to problems in groups in the form of works in the form of reports. 4) then evaluate the process of finding solutions that have been used. These four steps can be trained on students' social attitudes during discussions in their groups. Social attitudes will be formed in the form of responsibility, tolerance, accepting friends' opinions, open-mindedness, and discipline.

Third finding, there is a significant influence of the learning model *problem based learning* on social studies content collaboration skills in class V Cluster I Seririt District students, with an F-count of 7.864 and a significance of 0.05. Deep learning process *problem based learning* This emphasizes students as learning subjects. This is also in line with constructivism theory, namely students are encouraged to develop their own knowledge. Then in the formation of small groups (*learning occurs in small group*) students can develop their knowledge with their peers through discussion. In *learning occurs in small group* scientific interaction and exchange of ideas also occurs in an effort to develop knowledge collaboratively. This fosters students' collaborative skills. In this small group there is also a demand for a clear, even division of tasks, and of course in accordance with the expected goals.

Fourth finding, simultaneously, there is a significant influence of the learning model *problem based learning* on social attitudes and collaborative skills of IPS content in class V Cluster I Seririt District students, with an F-count of 23.013 and a significance of 0.05. The advantages of learning models *problem based learning* This encourages students besides being able to solve the problems given, they also cultivate social attitudes and collaborative skills simultaneously. Students are faced with real problems and build their own knowledge to overcome them. In this learning process scientific activity also occurs in students through working in groups. Working in this group is very capable of cultivating students' social attitudes and collaborative skills. Another advantage that can be observed is that students are used to using knowledge sources, both from the library, the internet, interviews, and observations. Students have the ability to assess their own learning progress. Students are able to carry out scientific communication in discussion activities and presenting results through presentations. In addition to cultivating social attitudes and students' collaborative skills, individual student learning difficulties can be overcome through group work in the form *peer teaching*.

Social attitudes are formed from the existence of a social interaction that occurs between individuals and their social environment. The process of forming this social attitude can be done in two ways, namely by habituation patterns and *modelling*. In the habituation pattern, the teacher can train students through learning in groups, both small groups and large groups. The more often students interact with their group friends, the social attitudes will automatically be formed. In this interaction students will be able to respect other people better, learn to understand the character of their friends, communicate easily, and so on. Indirectly, this interaction causes students to get used to the expected social attitudes (Çibik & Yalçın, 2011; Dishon & Gilead, 2020). As for the social attitudes that should be familiarized according to the indicators in this study, namely: honesty, tolerance, courtesy, discipline, and responsibility. on patterns *modelling* usually can be done by the teacher when delivering material that contains moral values. The ability of elementary school children who are still in the phase of imitating something they see is very strong, so they must be given good modeling. Teachers in schools should set an example of good behavior to their students (Ismaili, 2020; Prijanto & Kock, 2021). However, the modeling process does not always only come from the teacher, but also with friends or story characters that students like. That is why it is very necessary to do group learning so that students can imitate the good behavior of their peers. So that the learning model *problem based learning* suitable to be applied in social studies learning.

Collaboration skills emphasize more on the importance of a problem development in the learning that is carried out. Learning activities through an intellectual problem solving in the social aspect become more meaningful for students. This collaboration causes students to work together and benefit one another (Granić & Marangunić, 2019; Shine & Heath, 2020). When students exchange ideas with one another, that's where collaboration skills can be

created. Collaboration can also be referred to as a skill that is flexible, effective and fair to complete collective tasks with groups (Apriyanti et al., 2020; Rahiem, 2020). Thus, the application of collaboration can minimize differences in thoughts, skills, in providing suggestions during discussions. Collaboration can also serve as the basis for student relationships and lifestyles in terms of their obligations to their actions in learning abilities and respect between group members, to achieve common goals (Dindar et al., 2022; Muhali, 2019). The ability of collaboration can be seen by providing several problems, how the process of determining goals, making a design, how to realize and choose a strategy, trying to find solutions, how to improve plans, and so on.

Every research implementation, of course, not all can run smoothly. There are several obstacles encountered in this research. The first obstacle is that not all of the material in the IPS content can be applied using the learning model *problem based learning*. The teacher should not play an active role in presenting the material. Teaching and learning activities are more suitable for learning that requires certain abilities related to problem solving. The high level of diversity and ability of students causes difficulties in dividing tasks (Asih & Ramdhani, 2019; Widada & Herawaty, 2017). Model *Problem Based Learning* it takes a lot of time to implement. Learning with this model requires interest from students to solve problems, if students do not have this interest then students tend to be reluctant to try, and this learning model is suitable for learning that demands problem solving abilities (Asih & Ramdhani, 2019; Sekarwangi et al., 2021). The solution given is to choose material that is suitable for problem-based learning. The teacher is more a facilitator than a speaker. Trying to package learning as interesting as possible so that students are interested in learning and want to solve the problems given. Problems in learning are made real in relation to IPS content, so that it is easier for students to find solutions (Pratiwi et al., 2023; Setiawan & Mulyati, 2020). Utilizing peer tutors in group activities, students who are not yet able will be assisted by students who are able. This is one of the functions of group discussion. In groups there is also the growth of social attitudes and students' collaboration skills. Student collaboration skills by implementing learning models *Problem Based Learning* can be increased seen from the initiative of students in developing their skills and knowledge. Developing students' attitudes by cultivating student attitudes-becoming facilitators within themselves (Bojko, 2013; Taufan, 2022).

Correspondingly, the use of models *problem based learning* in improving collaboration skills with several indicators such as the ability to cooperate, responsibility, compromise, and communication skills. Collaboration skills are introduced and trained through group learning activities. Learning by providing worksheets also causes students to work on assignments by collaborating, discussing and being open among their members (Harisantoso et al., 2020; Jalmo, 2019). Model *problem based-learning* seeks to activate student learning by seeking the emergence of harmonious interactions between students in a pleasant classroom atmosphere. Individual responsibility means that the success of the group depends on the individual learning of all group members. This responsibility is focused on trying to help others master the material provided. By applying the learning model *problem based-learning* students actively collaborate in learning activities so they can solve problems in LKPD and make learning effective (Hartina, 2022; Mardawati & Rukli, 2022).

The implication of this research is that there is teacher innovation in packaging model learning *problem based learning* in order to improve social attitudes and collaboration skills. The success in this study of studying social attitudes and collaboration skills is strongly supported by the active role of students in constructing their knowledge through interactions with the learning environment designed by the teacher who acts as a learning facilitator. Learning model *problem based learning* is a student-centered learning model in order to be able to develop thinking skills, problem solving, and intellectual skills.

4. CONCLUSION

Based on the research that has been done, it can be concluded as follows. 1) There is a significant influence of the learning model problem based learning on the social attitudes of social studies content in class V Cluster I Seririt District students. 2) There is a significant influence of the problem-based learning model on social studies content collaboration skills in class V Cluster I Seririt District students. 3) Simultaneously, there is a significant influence of the problem-based learning model on social attitudes and collaboration skills of social studies content in class V Cluster I Seririt District students.

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