Problem Based Instruction Learning Model Based on Outdoor Learning Against Social Science Knowledge

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ABSTRACT

IPS merupakan salah satu mata pelajaran yang diajarkan di sekolah dasar. Namun dalam pelaksanaan pembelajaran IPS masih terdapat kendala seperti proses pembelajaran yang masih berpusat pada guru, hal ini tentunya akan mempengaruhi pengetahuan siswa. Tujuan penelitian ini adalah untuk menguji pengaruh penggunaan model pembelajaran Problem Based instruction berbasis outdoor learning terhadap pengetahuan IPS kelas V sekolah dasar. Jenis penelitian yang digunakan adalah penelitian eksperimen semu (Quasi Experimental Design) dengan menggunakan desain noneqivalent post-test only control group design. Populasi yang terlibat dalam penelitian ini adalah seluruh siswa kelas V Sekolah Dasar, dengan jumlah sampel penelitian sebanyak 50 siswa. Pengumpulan data dalam penelitian dilakukan dengan menggunakan metode tes, dengan instrumen penelitian berupa 25 soal tes pilihan ganda pada materi IPS. Data yang diperoleh dalam penelitian kemudian dianalisis dengan menggunakan teknik analisis statistik deskriptif dan analisis statistik inferensial. Hasil analisis data menunjukkan bahwa Sig. (2-ekor) sebesar 0,000. Jika nilai dalam Sig. (2-tailed) dibandingkan dengan nilai signifikansi sebesar 0,05 maka nilai tersebut 0,000 < 0,05. Artinya H1 diterima dan H0 ditolak. Berdasarkan hasil tersebut dapat disimpulkan bahwa model pembelajaran Problem Based instruction berbasis outdoor learning dapat meningkatkan pengetahuan IPS siswa kelas V sekolah dasar. 000. Jika nilai pada kolom Sig. (2-tailed) dibandingkan dengan nilai signifikansi sebesar 0,05 maka nilai tersebut 0,000 < 0,05. Artinya H1 diterima dan H0 ditolak.

1. INTRODUCTION

Education is an activity of educating, teaching and training which aims to make someone who doesn’t know know and make someone more mature. A person can increase his knowledge by studying (Mulyani & Haliza, 2021; Sujana, 2019). Learning is the result or level of ability that students have achieved after following the learning process in class (Hotimah, 2020; Kanti et al., 2018). In learning, of course there...
are many differences, such as there are students who are able to digest the lesson material, there are also students who are slow to digest the lesson material, therefore teachers must arrange strategies in learning that suit the circumstances of each student. (Pane & Dasopang, 2017; Pertwi et al., 2019). One of the lessons taught in schools, especially elementary schools, is social studies lessons (Widodo et al., 2020). Social studies is a social study that raises social science concepts and theories in an integrated manner in order to understand, study, think about solving problems that exist in society, so as to provide personal satisfaction and for society as a whole, with the aim of educating children to become citizens. the good one (Melinda et al., 2018; Nursyaida & Hardiyanti, 2020; Wiluya & Khastini, 2022). Social studies learning in elementary schools is carried out with the aim of developing students’ sensitivity to various social problems that occur in society, as well as fostering a positive mental attitude so that later students will be skilled in solving various problems that occur in everyday life. (Andari et al., 2019; Dewi & Mubarokah, 2019; Likus et al., 2018). Students who are able to understand social studies learning well will be more sensitive to various conditions that occur in the surrounding environment (Arini, 2020; Masliahah et al., 2022).

However, the results of observations carried out in Cluster VI, Kubu District, show that students' social studies knowledge is still lacking. This is because the learning process is still teacher-centered, thus making students less active and unable to think critically in solving a problem. The teacher only explains the material in the book without providing direct understanding to the students. In the social studies learning process, students memorize more than they understand the content of the material, and students tend to listen and re-note the material in the textbook. Teachers have not used innovative learning models, this can certainly reduce students’ motivation and interest in learning. As well as teachers not utilizing the surrounding environment in the learning process (outdoor learning). If teachers can utilize the environment as a resource in learning then it can stimulate students to learn more actively with direct and real objects. As for the KKM achievement, the social studies scores of class V students in Cluster VI Kubu District are mostly still below the KKM. Of the 257 class V students at Cluster VI Elementary School, Kubu District, there are only 121 students who can meet the KKM. So with this, it can be said that the majority of students have not been able to reach the KKM that has been set by the school. If this is allowed to continue, this will of course have an impact on not achieving social studies learning objectives. If the teacher can utilize the environment as a resource in learning, it can stimulate students to learn more actively with direct and real objects. As for the KKM achievement, the social studies scores of class V students in Cluster VI Kubu District are mostly still below the KKM. Of the 257 class V students at Cluster VI Elementary School, Kubu District, there are only 121 students who can meet the KKM. So with this, it can be said that the majority of students have not been able to reach the KKM that has been set by the school. If this is allowed to continue, this will of course have an impact on not achieving social studies learning objectives. If the teacher can utilize the environment as a resource in learning, it can stimulate students to learn more actively with direct and real objects. As for the KKM achievement, the social studies scores of class V students in Cluster VI Kubu District are mostly still below the KKM. Of the 257 class V students at Cluster VI Elementary School, Kubu District, there are only 121 students who can meet the KKM. So with this, it can be said that the majority of students have not been able to reach the KKM that has been set by the school. If this is allowed to continue, this will of course have an impact on not achieving social studies learning objectives. If the teacher can utilize the environment as a resource in learning, it can stimulate students to learn more actively with direct and real objects. As for the KKM achievement, the social studies scores of class V students in Cluster VI Kubu District are mostly still below the KKM. Of the 257 class V students at Cluster VI Elementary School, Kubu District, there are only 121 students who can meet the KKM. So with this, it can be said that the majority of students have not been able to reach the KKM that has been set by the school. If this is allowed to continue, this will of course have an impact on not achieving social studies learning objectives. As for the KKM achievement, the social studies scores of class V students in Cluster VI Kubu District are mostly still below the KKM. Of the 257 class V students at Cluster VI Elementary School, Kubu District, there are only 121 students who can meet the KKM. So with this, it can be said that the majority of students have not been able to reach the KKM that has been set by the school. If this is allowed to continue, this will of course have an impact on not achieving social studies learning objectives.

One effort that can be made to overcome this problem is by implementing a problem based instruction learning model. The problem based instruction learning model is a learning model that is used to stimulate students' higher level thinking in problem-oriented situations (Hariata et al., 2017; Sinambela, 2017). The teacher's role in PBI is to present the problem, ask questions and facilitate inquiry (Nasution et al., 2020; Rizal & Pertvi, 2020). PBI cannot be implemented without teachers developing a classroom environment that allows for an open exchange of ideas (Elvina, 2017; Sukarma & Sani, 2020). The PBI learning model in this learning will place more emphasis on real world problems in learning about critical thinking and problem solving skills as well as being able to gain knowledge and core concepts from the learning material. (Alawiyyin, 2021; Sabrun & Abidin, 2020). In this learning process, of course, the surrounding environment will be utilized to stimulate students to be active in learning. Outdoor learning is...
a fun activity outside the classroom that emphasizes the learning process based on real facts and directly experienced (Astuti, 2019; Setiyorini, 2018). Students can observe, ask questions, and prove about the material they study (Antari et al., 2021; Kurniawati & Mardiana, 2021). This method can be said to be relaxed but has many benefits in making students more interested in learning by utilizing the environment as a learning resource (Awaluddin & Setiyadi, 2023; Manungki & Manahung, 2021).

Several studies that have been carried out previously revealed that the application of the problem based instruction model in science learning regarding the human reproductive system can improve the learning outcomes of junior high school students. (Alawiyin, 2021). Other research results reveal that the contextual learning model with an outdoor learning approach is effective in improving problem-solving abilities (Yusup et al., 2021). The results of further research revealed that the thematic learning outcomes of class IV students at SD Negeri Taba Remanik after implementing the outdoor learning model were significantly improved with an increase in the average score. (Antari et al., 2021). Based on several research results, it can be said that the problem based instruction learning model and the outdoor learning model can significantly improve student learning outcomes. It's just that in previous research, there has been no study that specifically discusses the effect of using the outdoor learning-based Problem Based Instruction learning model on social studies knowledge in fifth grade elementary school. So this research focuses on this study with the aim of testing the effect of using the outdoor learning-based Problem Based Instruction learning model on social studies knowledge in fifth grade elementary school.

2. METHOD

The type of research used is quasi-experimental research (Quasi Experimental Design). The research design used was a non-equivalent post-test only control group design. The population in this study were all class V students in cluster VI Kubu District. The research sample was 26 Class V students of SD Negeri I Tulamben as the experimental class and 29 Class V students of SD Negeri 4 Tulamben as the control group. Data collection in research was carried out using the test method, with research instruments in the form of multiple choice test consisting of 25 questions. The grid of instruments used is presented in Table 1.

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Basic Competencies</th>
<th>Question Indicator</th>
<th>Cognitive Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences</td>
<td>Analyze forms of human interaction with the environment and its influence on the social, cultural and economic development of Indonesian society</td>
<td>Analyze the negative effects of human interaction with the natural environment</td>
<td>C4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discover forms of human interaction with the natural environment</td>
<td>C4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analyzing forms of negative interactions with the economy</td>
<td>C4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compare forms of human interaction based on the images provided</td>
<td>C5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analyzing forms of human interaction with the environment regarding culture</td>
<td>C4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analyze the forms of social problems that exist in the environment</td>
<td>C4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discover forms of human activity with the environment in generating income</td>
<td>C4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analyze examples of cultural problems that exist in the environment</td>
<td>C4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analyzing human interaction activities in the economy, social and culture</td>
<td>C4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Find ways to overcome social problems that occur around you</td>
<td>C4</td>
</tr>
</tbody>
</table>

The data obtained in the research was then analyzed using 2 data analysis techniques, namely descriptive statistical analysis and inferential statistical analysis. Descriptive statistics aims to collect data, analyze and present data in research. Descriptive statistics carried out are mean, mode, median (middle value), standard deviation and variance. Inferential statistical analysis aims to provide a basis for forecasting and estimation that is used to transform information into knowledge. Inferential (inductive) statistics is a method used to determine a population based on a sample by analyzing and interpreting the data to form a conclusion.
3. RESULT AND DISCUSSION

Result

In the data analysis process, two findings were obtained in this research. The first finding relates to the results of the description of the posttest research data for the experimental and control groups. The data in this research was obtained by giving a post-test to the experimental group which was taught using the Problem Based Instruction learning model based on outdoor learning and the control group was taught using the conventional learning model. The post-test is given in the form of 25 multiple choice questions which are used to determine students' social studies knowledge. The data used in this research are data from social studies knowledge tests obtained from the experimental and control groups. Data on the social science knowledge results of the experimental group were obtained from post-test data given to 26 students who had previously received treatment in the form of a problem-based instruction learning model based on outdoor learning. Data on the social science knowledge results of the control group were obtained from posttest data given to 29 students. Previously it had been treated using conventional models. The results obtained in this research are shown in Table 2.

Table 2. Results Description of Post Test Research Data for Experimental and Control Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Standard Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>83.38</td>
<td>88</td>
<td>85.32</td>
<td>6.07</td>
<td>36.84</td>
</tr>
<tr>
<td>Control</td>
<td>61</td>
<td>61</td>
<td>61.80</td>
<td>10.09</td>
<td>101.80</td>
</tr>
</tbody>
</table>

Based on the results of the mean, median and mode calculations above, the post-test data from the experimental and control groups can be depicted in a polygon curve as shown in Figure 1, and Figure 2.

Figure 1. Score Polygon Curve Social Studies Knowledge Test of Experimental Group Students

Based on the polygon curve in Figure 1, it can be explained that \((MO < Md < M)\) \((85.32 < 88 < 83.38)\). So the curve in Figure 1 is called a positive squint curve. This shows that most of the social studies knowledge scores of experimental group students tend to be high (above average). Furthermore, an overview of the polygon curve for the social studies knowledge test scores of control group students can be seen in Figure 2.

Figure 2. Curve Polygons Social Sciences Knowledge Test Scores of Control Group Students

Based on the polygon curve in Figure 2, it can be explained that \((MO > Md > M)\) \((61.8 > 61 > 61)\). So the curve in Figure 2 is called the negative squint curve. This shows that the majority of students' social studies knowledge scores in the control group tend to be below average.
Second finding related to the results of assumption testing. Testing this assumption is carried out before testing the hypothesis. In this research, there are two prerequisite tests that must be carried out before testing the hypothesis. The prerequisite tests that will be carried out are the normality of data distribution test and the homogeneity of variance test. The results of the normality and homogeneity of variance tests are shown in Table 3, and Table 4.

Table 3. Results Normality Test of Experimental Group and Control Group

<table>
<thead>
<tr>
<th>Class</th>
<th>Kolmogorov-Smirnova Statistics</th>
<th>Shapiro-Wilk Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test scores</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental group</td>
<td>0.151 26</td>
<td>0.926 26</td>
</tr>
<tr>
<td>Control group</td>
<td>0.101 29</td>
<td>0.966 29</td>
</tr>
</tbody>
</table>

Table 4. Results Test of Homogeneity of Variance in Experimental Group and Control Group

<table>
<thead>
<tr>
<th>Post-test scores</th>
<th>Levene statistics</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on mean</td>
<td>2.837</td>
<td>1</td>
<td>53</td>
<td>0.098</td>
</tr>
<tr>
<td>Based on median</td>
<td>2.454</td>
<td>1</td>
<td>53</td>
<td>0.123</td>
</tr>
<tr>
<td>Based on median and with adjusted df</td>
<td>2.454</td>
<td>1</td>
<td>45.699</td>
<td>0.124</td>
</tr>
<tr>
<td>Based on trimmed mean</td>
<td>2.805</td>
<td>1</td>
<td>53</td>
<td>0.100</td>
</tr>
</tbody>
</table>

All analytical prerequisites related to independent sample t-test analysis/uncorrelated sample t-test have been fulfilled, so that uncorrelated sample t-test analysis can be used to test the hypothesis of this research. The results of the uncorrelated sample t test are presented in Table 5.

Table 5. Test Results -t Uncorrelated Samples

<table>
<thead>
<tr>
<th>Mark Post Test</th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-Tailed)</th>
<th>Means Differences</th>
<th>Std. Error Differences</th>
<th>95% confidence Interval of the difference Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal Variances Assumed</td>
<td>2.837</td>
<td>0.098</td>
<td>8.077</td>
<td>53</td>
<td>0.000</td>
<td>20.530</td>
<td>2.542</td>
<td>15.432</td>
<td>25.628</td>
</tr>
<tr>
<td>Equal Variances not Assumed</td>
<td>8.229</td>
<td>50.323</td>
<td>0.000</td>
<td>20.530</td>
<td>2.495</td>
<td>15.520</td>
<td>25.540</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the results in Table 5, it can be seen that the Sig. (2-tailed) of 0.000. If the value in the Sig. (2-tailed) compared with a significance value of 0.05, then the value is 0.000 < 0.05. So, this means that H1 is accepted and H0 is rejected. So it can be concluded that there is a significant influence of the outdoor learning-based Problem Based Instruction learning model on social science knowledge for class V of Gugus VI State Elementary School, Kubu District.

Discussion

This research was carried out on class V students at SD Negeri Gugus VI Kubu District on social studies learning content theme 6 (heat and its transfer), namely KD 3.2 Analyzing forms of human interaction with the environment and their influence on the social, cultural and economic development of Indonesian society. The aim of this research is to examine the effect of using the Problem Based Instruction learning model based on Outdoor Learning on the social studies knowledge of class V students at SD Negeri Gugus VI, Kubu District. Before determining the class used as a sample, an equality test is carried out on the students’ initial abilities using PTS (mid-semester assessment) scores. After knowing that the students’ initial abilities are equivalent, then the sample is determined using a lottery process.

Learning in the experimental group was carried out by applying the Problem Based Instruction learning model based on Outdoor Learning. Applying this Problem Based Instruction model can make students directly involved in problem solving and more active in participating in learning (Hariata et al., 2017; Zebua et al., 2022). Problem based instructions a learning model based on constructivist understanding by involving students in problem solving (Laetisia, 2019; Sinambela, 2017). In implementing the Problem based instruction model based on Outdoor Learning, it goes through several stages according
to the learning syntax. Stages of the Problem Based Instruction learning model, namely orienting students to problems, organizing students to learn, guiding individual or group experiences, developing and presenting work results, analyzing and evaluating the problem solving process (Nasution et al., 2020; Rizal & Pertiwi, 2020). Problem Based Instruction is also a learning model that uses real world problems as a context for students to learn how to think and problem solving abilities, as well as to gain essential knowledge and concepts from learning material (Elvina, 2017; Haryanti & Sari, 2019; Sukarma & Sani, 2020). In the control group, which uses a conventional learning model, the learning process is still teacher-centered, students only observe and listen to the teacher explaining the material. So students tend to be inactive in learning and only depend on the teacher.

Based on the results of the t-test on the post-test scores that have been carried out, it can be concluded that there is a difference in the social studies knowledge of students who are taught using the outdoor learning-based problem based instruction learning model and the social studies knowledge of students who are taught using conventional learning models. This can be seen from the results of the tests that have been carried out, seen from the Sig value, (2-tailed) of 0.000. When compared with a significance level of 5% then 0.000 < 0.05. And it can be seen from the results of the assessment scale analysis of the post-test results that the experimental group is in the very good category, while the control group is in the good category (Alawiyin, 2021; Sabrun & Abidin, 2020). It is further explained that the PBI model has several advantages such as helping students develop problem solving skills, stimulating students to provide satisfaction in discovering knowledge, increasing students’ basic activities, developing critical thinking and the ability to adapt to new knowledge, and can develop students to learn continuously (Laetisia, 2019; Rizal & Pertiwi, 2020; Rosmiati & Lestari, 2021). So that the Problem Based Instruction learning model can make students able to think in solving the problems they encounter and can increase students' knowledge. While outdoor learning has many advantages compared to conventional learning which always takes place in the classroom, outdoor learning can make students more interested and enthusiastic in participating in learning activities (Antari et al., 2021; Astuti, 2019; Kurniawati & Mardiana, 2021; Setiyorini, 2018).

The results obtained in this research are in line with the results of previous research which also revealed that the application of the problem-based instruction model in science learning regarding the human reproductive system can improve the learning outcomes of junior high school students (Alawiyin, 2021). Other research results reveal that the contextual learning model with an outdoor learning approach is effective in improving problem-solving abilities (Yusup et al., 2021). The results of further research revealed that the thematic learning outcomes of class IV students at SD Negeri Taban Remanik after implementing the outdoor learning model were significantly improved with an increase in the average score (Antari et al., 2021). So based on several research results, it can be said that the problem based instruction learning model and the outdoor learning model can significantly improve student learning outcomes.

4. CONCLUSION

Based on the results of the research that has been carried out, it can be concluded that there is a significant influence of the Outdoor Learning-based Problem Based Instruction learning model on social studies knowledge for fifth grade elementary school. The application of the Problem Based Instruction learning model based on Outdoor Learning can make students active in participating in learning and students are able to solve the problems they encounter.

5. REFERENCES


