Improving IPS Learning Outcomes for Elementary School Students in Each Class Using the Problem-Based Learning Model

Didi SYAHRIRa,*, Yeni ERITAa, Feby KURNIAWANa, and Vany Qhairum Nisa UTAMIA

aBasic Education Study Program, Universitas Negeri Padang, West Sumatera, Indonesia

*Corresponding author: tanggangsinar@gmail.com

Abstract

Learning in a classroom is fairly passive because it just involves listening, completing homework, and reading books. Because of the lack of connection between students and professors or between students, learning is unproductive. The poor student learning outcomes are a result of this. The goal of this study is to examine how the problem-based learning (PBL) approach is used to enhance primary students' social studies learning outcomes. applying the meta-analysis method in research. The process of gathering data involved searching Google Scholar for electronic journals and reading library materials. 16 periodicals and 4 student theses served as the data sources for this study. In a qualitative description, data analysis was done. Based on the results of the analysis, it was found that the Problem-based learning model was able to improve student learning outcomes from the lowest 8.9%, an increase to 83.3%, an average increase of 30% was obtained. This shows that the Problem-based learning model is effective in improving the social studies learning outcomes of elementary school students. The implications of this research are expected to assist teachers in choosing the right learning model to improve student learning outcomes.

Keywords: Elementary school, problem-based learning, learning outcomes

Acknowledgments: Thank you to all who have participated in helping in the process until the completion of this research.


Introduction

Education aims to prepare people to solve life's problems in the present or in the future (Asniadarni, 2018; Novika Auliyanet al., 2018). One of the important subjects is IPS. IPS is included in the school curriculum which is very closely related to the role of humans in society.
IPS learning teaches about community life and how to socialize in the environment (Mahardani & Rachmadyanti, 2018; Rahmad, 2016). Students socialize with the closest environment, namely family and the community environment. This is attached to the memory that humans are social creatures who cannot live alone. Students too are required to solve problems in life as well as problems in society (Santoso, 2015; Winoto & Prasetyo, 2020). Social studies learning really needs to be given to all students, especially in elementary schools to equip students with the ability to think logically, analytically, systemically, critically, and creatively, as well as social skills. These competencies are needed so that students can have the ability to acquire, manage, and utilize information to deal with a problem.

However, the reality is that learning at school is different from what is expected. The learning process is just listening, doing assignments, and only focusing on books, so learning in the classroom is very passive (Utami, 2019; Winoto & Prasetyo, 2020). This causes a lack of interaction between teachers and students, between students and other students, so that learning becomes ineffective. This also has an impact on low student learning outcomes. In addition, teachers are required to motivate students to be more active, creative, and innovative in dealing with various problems in the surrounding environment (Arianti et al., 2019; Darmawan Harefa, 2020). Teachers are also expected to be able to provide solutions to a problem based on their knowledge and understanding. These problems, if left unchecked, will have a negative impact on the learning process in the school. So, the solution that can be done is to apply a learning model that can make students actively involved in the learning process and solve problems. One model that can be used as a solution is the Problem-Based Learning learning model.

The Problem-Based Learning learning model is a learning model that begins with problems found in a work environment to collect and integrate new knowledge developed by students independently (Alper Aslan, 2021; Seibert, 2020; Widiyatmoko, 2014). This model also focuses on student activity in solving problems (Andriyani & Suniasih, 2021; Winoto & Prasetyo, 2020). Students are not only given learning material in the same direction as in the application of conventional learning methods. With the Problem-Based Learning learning model, the learning process is expected to take place naturally in the form of student activities to strengthen problem-solving abilities and increase student independence, so that students are able to formulate, solve and interpret mathematics in various contexts (Anjelina Putri et al., 2018; Safithri et al., 2021; Saputro & Rayahu, 2020). The learning stage begins with giving problems, followed by identifying problems, students hold discussions to equalize perceptions of problems, then design solutions and targets to be achieved at the end of learning. The next step is for students to collect as many sources of knowledge as possible from books, the internet, and even observation (Kristiana & Radia, 2021; Safithri et al., 2021). Through this learning model, students are given the opportunity to interact with friends even online. Students learn to work together, exchange knowledge, and evaluate. The teacher in this case acts as a facilitator because learning is centered on students.

Several research findings state that the use of the Problem-Based Learning learning model can improve the learning outcomes of elementary school students (Kristiana & Radia, 2021; Suari, 2018). There are differences in social studies learning outcomes between students who take contextual learning and students who take Problem-Based Learning (Hendriana, 2018). Other findings state that efforts to improve social studies learning outcomes can be through the application of the Problem-Based Learning (PBL) learning model assisted by audio-visual media in 4th-grade elementary school students (Asniadarni, 2018). The renewal of this research was carried out on social studies learning for elementary schools. The purpose of this research is to analyze the problem-based learning model to improve social studies learning outcomes for elementary school students. This study assumes that students’ cognitive learning outcomes can be influenced by the application of problem-based learning models. Then make students more active
in participating in the learning process in class and can make students able to solve a problem.

**Methodology**

This research uses a meta-analysis method. The meta-analysis in this study was used to analyze the effectiveness of using problem-based learning models on students’ cognitive learning outcomes. Meta-analysis is a research study that includes several research results with the same variables so that quantitative data guidelines can be obtained. Data collection techniques by searching electronic journals through Google Scholar/Google Scholar as well as documentation studies in the library using the keywords "Problem-Based Learning", "Learning Outcomes" and "IPS SD". The results of the data obtained in this study amounted to 16 journals and 4 theses related to the use of problem-based learning models to improve social studies learning outcomes for elementary students. Data analysis techniques using quantitative comparison methods to find out how much influence the Problem-Based Learning learning model has. The analysis was carried out by comparing the difference in scores before the learning activity with those after the learning activities using the Problem-based learning model. After that, it is divided by the score before the learning activity using the Problem-based learning model (in the form of %) to find out the percentage increase in social studies learning outcomes for elementary students.

**Results**

This meta-analytic research was carried out with the aim of analyzing the success of the Problem-based learning model on social studies learning outcomes for elementary school students. This study compared 16 articles and 4 theses that met the requirements. The results of the comparison of the articles used as samples of this study are shown in Table 1 below.

<table>
<thead>
<tr>
<th>JUDUL PENELITIAN</th>
<th>PENELITI</th>
<th>PENINGKATAN HASIL BELAJAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penerapan Model PBL Untuk Meningkatkan Minat Dan Hasil Belajar IPS Pada Siswa Kelas IV</td>
<td>Saraswatha et al., 2016</td>
<td>66</td>
</tr>
<tr>
<td>Penerapan Model Problem based learning Terhadap Hasil Belajar IPS Materi Pemanfaatan Sumber Daya Alam Pada Siswa Kelas IV Sekolah Dasar</td>
<td>Rahmawati, 2020</td>
<td>59,81</td>
</tr>
<tr>
<td>Peningkatan Hasil Belajar IPS Melalui Model Problem based learning (PBL)Pada Siswa Kelas IV SD INPRES BORONG Jambu II Kota Makassar</td>
<td>HS et al., 2019</td>
<td>67,2</td>
</tr>
<tr>
<td>Penerapan Model Problem based learning (Pbl) Untuk Meningkatkan Hasil Belajar IPS di SD</td>
<td>Tombokan, 2021</td>
<td>64,68</td>
</tr>
<tr>
<td>Penerapan Model Pembelajaran Berdasarkan Masalah Untuk Meningkatkan Hasil Belajar IPS Siswa Kelas IV SDN 169 PEKANBARU</td>
<td>Erlisnawati &amp; Marhadi, 2015</td>
<td>70</td>
</tr>
</tbody>
</table>

**Table 1. Improved learning outcomes**
<table>
<thead>
<tr>
<th>Penerapan Model Problem based learning Meningkatkan Motivasi dan Hasil Belajar IPS</th>
<th>Setyosari &amp; Sumarmi, 2017</th>
<th>71,42</th>
<th>85,71</th>
<th>14,29</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penerapan Model Problem based learning Untuk Meningkatkan Hasil Belajar Siswa Pada Pembelajaran IPS di Sekolah Dasar</td>
<td>Fauziah, 2016</td>
<td>35,3</td>
<td>64,7</td>
<td>29,4</td>
<td>83,3</td>
</tr>
<tr>
<td>Upaya Meningkatkan Hasil Belajar IPS Melalui Model Problem based learning</td>
<td>Kurniati et al., 2019</td>
<td>58</td>
<td>78,25</td>
<td>0,25</td>
<td>34,9</td>
</tr>
<tr>
<td>Peningkatan Proses Dan Hasil Belajar Tema 8 Subtema 1 Muatan IPS Melalui Model Pembelajaran Problem based learning Pada Siswa Kelas 4 SDN Ledok 07 Salatiga Semester II Tahun Pelajaran 2017/2018</td>
<td>Rusyita et al., 2018</td>
<td>62,5</td>
<td>87,5</td>
<td>25</td>
<td>40</td>
</tr>
<tr>
<td>Penerapan Model Problem-Based Learning Berbantuan Metode Mind Mapping Untuk Meningkatkan Aktivitas Dan Hasil Belajar IPS Siswa Kelas IV SD Negeri 002 Sebatik Utara Kabupaten Nunukan</td>
<td>Suwaib et al., 2020</td>
<td>76,19</td>
<td>95,24</td>
<td>18,05</td>
<td>24,3</td>
</tr>
<tr>
<td>Penerapan Model Pembelajaran Berbasis Masalah Untuk Meningkatkan Hasil Belajar IPS Siswa Kelas IV SD Babussalam Pekanbaru</td>
<td>Siti Lestari, 2018</td>
<td>45</td>
<td>75</td>
<td>30</td>
<td>66,7</td>
</tr>
<tr>
<td>Penerapan Model Pembelajaran Problem based learning Untuk Meningkatkan Hasil Belajar IPS Siswa Kelas IV SD Negeri 18 Babussalam Kecamatan Mandau</td>
<td>Helma et al., n.d.</td>
<td>72,66</td>
<td>83,33</td>
<td>10,67</td>
<td>14,7</td>
</tr>
<tr>
<td>Upaya Meningkatkan Hasil Belajar IPS Melalui Model Problem based learning (PBL) Berbantuan Media Audio Visual Pada Siswa Kelas 4 SD</td>
<td>Cahyo et al., 2018</td>
<td>60</td>
<td>77</td>
<td>17</td>
<td>28,3</td>
</tr>
<tr>
<td>Keefektifan Model Problem based learning Berbantuan Blog Terhadap Hasil Belajar Muatan IPS Siswa Kelas IV SDN di Gugus Nyi Ageng Serang Semarang</td>
<td>Lukmi Maulana</td>
<td>78,94</td>
<td>85,96</td>
<td>7</td>
<td>8,9</td>
</tr>
<tr>
<td>Penerapan Model Pembelajaran Problem based learning (PBL) Untuk Meningkatkan Aktivitas dan Hasil Belajar Siswa Kelas IV Pada Mata Pelajaran IPS di SDN BINTORO 02 JEMBER</td>
<td>Halidayanti, 2016</td>
<td>73</td>
<td>84,2</td>
<td>11,2</td>
<td>15,3</td>
</tr>
<tr>
<td>Penerapan Model Problem based learning (PBL) Untuk Meningkatkan Hasil Belajar Siswa Pada Mata Pelajaran IPS Kelas IV MI Islamiyah Sumberrejo Batanghari Tahun Pelajaran 2017/2018</td>
<td>Wardani, 2018</td>
<td>66,6</td>
<td>81,6</td>
<td>15</td>
<td>22,5</td>
</tr>
<tr>
<td>Peningkatan Hasil Belajar Pada Pembelajaran IPS dengan Model Problem based learning Berbantuan Media Puzzle Siswa Kelas IV SDN Sumbersari 01</td>
<td>Iswahyudi, 2017</td>
<td>50</td>
<td>72,35</td>
<td>22,35</td>
<td>44,7</td>
</tr>
<tr>
<td>Penerapan Model Pembelajaran Berbasis Masalah Untuk Meningkatkan Hasil Belajar IPS Siswa Kelas IV SD Negeri 29</td>
<td>Shaputri et al., 2017</td>
<td>60</td>
<td>83,33</td>
<td>23,33</td>
<td>38,9</td>
</tr>
</tbody>
</table>

**Peningkatan hasil belajar**

17
<table>
<thead>
<tr>
<th>Judul Penelitian</th>
<th>Peneliti</th>
<th>Sebelum</th>
<th>Sesudah</th>
<th>Gain</th>
<th>Gain (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meningkatkan Hasil Belajar Siswa Pada Pelajaran IPS Melalui MetodePendekatan <em>Problem based learning</em> Di Kelas IV SDN No. 1 Nupabomba</td>
<td>Hiola, 2016</td>
<td>57</td>
<td>77</td>
<td>20</td>
<td>35,08</td>
</tr>
<tr>
<td><strong>Rata-rata Pembelajaran Menggunakan Problem based learning</strong></td>
<td></td>
<td><strong>60,5</strong></td>
<td><strong>81,4</strong></td>
<td><strong>21,3</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

Based on the results of this study, it can be seen that the use of problem-based learning models can have a positive impact on students' cognitive learning outcomes. Based on a sample of 16 journals and 4 theses, it shows the magnitude of the influence of using the Problem-based learning model in a positive direction. This is evidenced by the average result obtained from the data that has been analyzed, which is 21.3. The minimum increase in learning outcomes is 8.9 and the maximum increase is up to 83.3. Then from the previous average data and the average after using the problem-based learning model, there is a significant change of 30%. Thus it can be said that the use of problem-based learning models can improve student learning outcomes. This is because the Problem-Based Learning learning model is quite effective in improving student learning outcomes.

The Problem-Based Learning learning model assists readers in choosing an appropriate learning model and is able to attract student learning interest. The problem-based learning model must begin with an awareness of the problem to be solved. In this activity, the teacher is able to guide students if there are gaps felt by students or their social environment. The ability that students can have in this activity is that students are able to choose or accept the gaps that exist from various existing activities. The application of this model gives flexibility to students in implementing their experiences in solving problems so that they can influence learning outcomes (Bosica et al., 2021; Seibert, 2020). In addition, the PBL model can improve students' problem-solving skills, so that students can assess their own ability to solve problems better. This is because in this PBL model students have to find solutions and they will also be trained to solve problems. The problems presented in the learning process reflect real problems encountered in everyday life (Hendriana, 2018; Safithri et al., 2021). This learning model can be an effective solution because it is able to make learning activities more interesting by inviting students to solve problems so that student's interest in playing an active role during learning is formed (Fauziah, 2016; Misla & Mawardi, 2020; Nookhonga & Wannapiroon, 2015).

**Discussion**

Learning outcomes are the final results in implementing learning activities in schools. Improving learning outcomes can be done through systematic conscious effort and leads to positive changes. Several factors influence learning outcomes besides applying the model, namely internal factors and external factors. Internal factors are the process of teaching and learning activities that can change student behavior which includes motivation, concentration, and reactions. Motivation can arise if students have the effort and willingness to improve themselves and learn better (Ricardo & Meilani, 2017; Syafri, 2018). Concentration is focused on attention to the learning outcomes achieved. In learning activities, concentration is needed because if
students are not able to concentrate in learning activities it can affect learning outcomes that will not be maximized. Therefore, concentration is able to influence learning activities to achieve the learning objectives themselves. Reactions to teaching and learning activities require both physical and mental elements. With the presence of students, the learning process comes alive. Students do not just sit, be silent, listen, or only become objects in learning, but as subjects in learning.

Based on the discussion, the impact of applying the PBL model is that student learning outcomes can increase. The Problem-Based Learning learning model is suitable to be applied because it has many advantages including (1) the Problem-Based Learning learning model can increase student activity in full, both physically and mentally, (2) the problem-based learning model can make students learn not by rote, but the process from students’ experiences in real life, (3) class in Problem-Based Learning as a place to solve a problem in the field, (4) the subject matter is constructed by students themselves under the guidance of the teacher. This finding is reinforced by previous findings which state that the Problem-Based Learning learning model has an effect on student learning outcomes in elementary schools (Afifah et al., 2019; Kristiana & Radia, 2021; Suari, 2018). The Problem-Based Learning learning model can also improve learning outcomes with the help of learning media (Andriyani & Suniasih, 2021; Fajar Ali, 2016). Other findings also state that learning motivation can be increased by using the problem-based learning model (Setyosari & Sumarmi, 2017; Suari, 2018).

Conclusion

The application of the Problem-Based Learning learning model has a positive influence on improving student learning outcomes. This was marked by an increase in learning outcomes before and after the implementation of the Problem-Based Learning learning model. Thus, the Problem-Based Learning model is effectively used in learning compared to the traditional group study model for social studies learning outcomes in elementary schools. It is hoped that teachers will be able to use the Problem-Based Learning learning model optimally and not only make the Problem-Based Learning learning model an alternative in learning activities. Thus, it can improve the quality of education better, especially in social studies subjects. The implications of this research are expected to assist teachers in choosing the right application of learning models to improve student learning outcomes.

Conflict of Interest

No conflict of interest

References


https://doi.org/10.23887/jet.v5i1.32314.


