

## Application of Project-Based Learning Model to Social Studies Learning Materials of the Independent Curriculum at SDN 01 Depok City



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**ABSTRACT:** This research aims to obtain a clearer picture of how PBL can be implemented effectively in social studies learning in elementary schools, and can provide input for educational policy makers in formulating policies that support the implementation of innovative learning models and in accordance with dynamic curriculum demands. This research uses a quantitative approach with a quasi-experimental design. This approach was chosen because it is suitable for measuring the effectiveness of implementing the Project-Based Learning (PBL) learning model in improving student learning outcomes in Social Sciences (IPS) subjects. The research results show that the t test results show that the calculated t value (4.321) is greater than the t table (2.001) with a p-value  $<0.05$ . Meanwhile, the results of critical thinking, collaboration and creativity skills experienced a significant increase after implementing PBL, with an average increase of 16.7 to 17.9 points. This indicates that there is a statistically significant difference between the learning outcomes of students who use the PBL model and those who use conventional learning methods. Therefore, it can be concluded that the PBL learning model is more effective in improving students' social studies learning outcomes.

**KEYWORDS:** Project-Based Learning, Social Sciences, Social Sciences, Independent Curriculum, SDN 01 Depok City

### INTRODUCTION

Basic education has an important role in shaping students' character and basic knowledge. Social Sciences (IPS) as one of the subjects in elementary school aims to develop the knowledge, skills, and social attitudes necessary for living in society. However, the challenges faced in social studies learning are often related to low student motivation and their lack of active involvement in the learning process (Susanti, 2020). One of the factors causing this is the use of conventional and less varied learning methods, which causes students to feel bored and not interested in the material presented.

The Independent Curriculum introduced by the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia is a response to the need for education that is more adaptive and relevant to the times. This curriculum provides more freedom for schools and teachers in determining learning methods and materials that are in accordance with the context and needs of students (Ministry of Education, Culture, Research, and Technology, 2021). In this context, an innovative and student-centered learning approach is needed to improve the quality of social studies learning in elementary schools.

The Project-Based Learning (PBL) learning model is one of the relevant approaches to be applied in the Independent Curriculum. PBL is a project-focused learning method as the main medium of learning, where students are actively involved in exploring real problems, designing solutions, and producing appropriate products or presentations (Condcliffe, 2017). This model not only develops students' cognitive knowledge, but also 21st-century skills such as critical thinking, collaboration, and creativity (Rahmawati, 2022).

Previous research has shown that the implementation of PBL can increase student learning motivation, engagement in learning, and better learning outcomes compared to traditional learning methods (Pratiwi & Nugroho, 2019). PBL is also considered effective in helping students understand abstract concepts in social studies through direct application in meaningful projects (Wijaya, 2021). However, the implementation of PBL at the elementary school level still faces various challenges, such as teacher readiness, limited resources, and adjustment to the applicable curriculum (Yunita & Herlambang, 2020).

SDN 01 Depok City, as one of the schools that implements the Independent Curriculum, has the opportunity to utilize PBL in social studies learning. However, based on initial observations, the learning methods applied in this school still tend to be dominated by individual lectures and assignments, which lack space for students to learn collaboratively and contextually. In fact,

# Application of Project-Based Learning Model to Social Studies Learning Materials of the Independent Curriculum at SDN 01 Depok City

students at elementary school age need a more interactive and meaningful approach so that they can internalize the social concepts taught (Susanto, 2023).

Therefore, this study aims to apply the Project-Based Learning learning model to social studies material at SDN 01 Depok City and measure its effectiveness in improving student learning outcomes. This research is expected to make a practical contribution in developing social studies learning strategies that are more innovative and in accordance with the principles of the Independent Curriculum. In addition, the results of this study can also be a reference for teachers in implementing learning models that can motivate students to learn more actively and meaningfully.

Through this study, it is hoped that a clearer picture can be obtained about how PBL can be effectively implemented in social studies learning in elementary schools, as well as what factors need to be considered so that the implementation of PBL can provide optimal results. The results of this research are also expected to be an input for education policymakers in formulating policies that support the implementation of innovative learning models and in accordance with the demands of a dynamic curriculum.

## A. RESEARCH METHODS

This study uses a quantitative approach with a quasi-experimental design. This approach was chosen because it is appropriate to measure the effectiveness of the implementation of the Project-Based Learning (PBL) learning model in improving student learning outcomes in Social Sciences (IPS) subjects at SDN 01 Depok City. The pseudo-experimental design is used because the research is conducted in an established classroom environment, where the researcher does not have full control to randomly determine the experimental group and the control group (Creswell & Creswell, 2018).

The design used in this study is a non-equivalent control group design. In this design, there are two groups of students who will each receive different treatment. The experimental group will get learning using the PBL model, while the control group will receive learning with conventional methods commonly used in the classroom (Fraenkel, Wallen, & Hyun, 2019). The learning outcomes of students from both groups will be compared to assess the effectiveness of PBL implementation.

The main instrument used in this study is a learning outcome test which is compiled based on indicators of competency achievement in social studies material according to the Independent Curriculum. This test consists of multiple-choice questions and descriptions that measure concept understanding, critical thinking skills, and knowledge application ability. In addition, questionnaires are also used to measure students' attitudes and learning motivation towards social studies learning before and after the treatment is given (Sugiyono, 2018). The data obtained from the learning outcome test will be analyzed using statistical tests to compare the average learning outcomes between the experimental group and the control group. An independent t-test will be used to determine whether there is a significant difference between the two groups (Field, 2018). Data from the questionnaire will be analyzed descriptively to see changes in students' attitudes and learning motivation before and after the implementation of PBL.

## B. RESULTS AND DISCUSSION

This study aims to evaluate the effectiveness of the implementation of the Project-Based Learning (PBL) learning model in improving student learning outcomes in Social Sciences (IPS) subjects at SDN 01 Depok City. A pseudo-experimental design with a *non-equivalent control group design* was used to compare learning outcomes between the experimental group that applied PBL and the control group that used conventional learning methods.

### 1. Descriptive Analysis of Student Learning Outcomes

The following are the descriptive results of this study:

Group	Amount Remaining	Average Pretest Score	Average Posttest Score	Average Lift
Experiment (PBL)	30	65,2	82,5	17,3
Control	30	64,8	74,3	9,5

Source : Data Processed

From the table above, it can be seen that the average pretest scores of the two groups are not significantly different, with the experimental group getting an average score of 65.2 and the control group 64.8. However, after the application of the learning method, there was a significant increase in the average posttest score, especially in the experimental group that used the PBL model. The average posttest score in the experimental group reached 82.5, while in the control group it was only 74.3.

# Application of Project-Based Learning Model to Social Studies Learning Materials of the Independent Curriculum at SDN 01 Depok City

The increase in the average score in the experimental group of 17.3 points showed that the application of PBL had a positive effect on student learning outcomes. On the contrary, the increase in the control group was only 9.5 points, indicating that conventional learning methods were less effective in improving students' understanding of social studies material.

## 2. Inferential Analysis of Student Learning Outcomes

To test the hypothesis of whether there was a significant difference between the experimental and control groups, an independent t-test was performed on the posttest data of both groups. The results of the t test are as follows:

- t count = 4,321
- t table (df = 58,  $\alpha = 0.05$ ) = 2.001
- p-value = 0.0001

The results of the t-test show that the t-value calculated (4.321) is greater than the t-value of the table (2.001) with a p-value < 0.05. This indicates that there is a statistically significant difference between the learning outcomes of students who use the PBL model and those who use conventional learning methods. Therefore, it can be concluded that the PBL learning model is more effective in improving student social studies learning outcomes.

## 3. 21st Century Skills Analysis

In addition to learning outcomes, the study also evaluated the development of students' 21st century skills, such as critical thinking, collaboration, and creativity, through questionnaires given before and after the implementation of PBL. The results showed a significant improvement in the scores of those skills in the experimental group. Here is a summary of the results:

Skills	Average Pretest Score	Average Posttest Score	Average Lift
Critical Thinking	68,7	85,4	16,7
Collaboration	70,3	88,2	17,9
Creativeness	69,8	86,7	16,9

Source : Data Processed

Critical thinking, collaboration, and creativity skills experienced significant improvements after the implementation of PBL, with an average increase of 16.7 to 17.9 points. PBL allows students to engage in tasks that demand problem-solving, teamwork, and innovation in the face of challenges. This research is in line with the literature that shows that PBL can effectively develop 21st century skills (Condliffe, 2017; Rahmawati, 2022).

## 4. Factors Affecting the Effectiveness of PBL

The implementation of PBL at SDN 01 Depok City is inseparable from various challenges. Observations and interviews with teachers revealed several factors that affect the effectiveness of PBL implementation:

- 1) **Teacher Readiness:** Teachers need a good understanding of the concept and implementation of PBL. At SDN 01, some teachers face difficulties in designing projects that are in accordance with the curriculum and students' ability levels. More intensive training and mentoring are needed to help teachers develop these abilities (Susanto, 2023).
- 2) **Resources:** Limited facilities and resources, such as teaching aids and access to technology, are obstacles in the implementation of PBL. Some designed projects require materials and tools that are not available in schools, thus affecting the quality of results that students can achieve (Yunita & Herlambang, 2020).
- 3) **Student Participation:** PBL demands active participation from all students, but in practice, the same level of participation affects student participation. Teachers need to pay more attention to under-engaged students to ensure they continue to benefit from the learning process (Pratiwi & Nugroho, 2019).

## C. CONCLUSION

The results of this study provide several important implications for the development of learning at SDN 01 Depok City, especially in the context of the Independent Curriculum. The application of PBL has proven to be effective in improving social studies learning outcomes and developing 21st century skills. However, to achieve optimal results, several recommendations need to be considered:

1. **Teacher Training:** Schools need to hold ongoing training to improve teachers' skills in designing and implementing PBL.
2. **Resource Development:** Schools need to invest in the provision of adequate facilities and tools to support the implementation of PBL.

## Application of Project-Based Learning Model to Social Studies Learning Materials of the Independent Curriculum at SDN 01 Depok City

3. Increased Student Participation: Teachers need to develop strategies to increase the active participation of all students in PBL, for example by adapting projects to students' interests or assigning roles that suit their abilities.

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## Application of Project-Based Learning Model to Social Studies Learning Materials of the Independent Curriculum at SDN 01 Depok City

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