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Implementation of Project-Based Learning Model (PjBL) to Improve the Learning Outcomes of Social Studies Students in Grade VII at Al-Kyai Sitiaji Junior High School, Sukosewu, Bojonegoro

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Keywords

Project-Based Learning, learning outcomes, social studies, active learning, classroom action research

Abstract

This study aims to improve social studies learning outcomes of grade VII students of Al-Kyai Sitiaji Junior High School, Sukosewu, Bojonegoro through the application of the Project-Based Learning (PjBL) model. The main problems identified were low student average scores and limited active participation during the learning process. This study uses Classroom Action Research (CAR) using the Kemmis and McTaggart models, which is conducted in two cycles.

Data was collected through observation, documentation, and learning outcome tests. The results showed an increase in students' average scores from 65 to 75, and learning mastery increased from 47% to 82%. Student activity also increased, especially in terms of engagement during group discussions and project work.

The implementation of PjBL has proven to be effective in improving learning outcomes and 21st century skills such as critical thinking, creativity, collaboration, and responsibility. This model can serve as an alternative to contextual and meaningful learning strategies in social studies education.

Introduction

Education plays a strategic role in shaping an adaptive and competitive generation in the global era. Through education, individuals are equipped with knowledge, moral values, ethics, and strong character (Quratul 'Aini, F. et al., 2024). Ideally, education should encourage students to think critically, creatively, and constructively in the face of life's various challenges. This is in line with Law No. 20 of 2003 concerning the National Education System which states that education aims to develop students' potential to become loyal, pious, noble, intelligent, and competent individuals.

However, challenges in the implementation of education remain significant, especially the low level of student learning achievement. Learning achievement reflects the extent to which students successfully engage systematically with the learning process (Nopita, R. 2022). According to Djamarah, learning is not just about memorizing information; It is a comprehensive process that involves physical and mental activity that results in behavioral changes across the cognitive, affective, and psychomotor domains (Khotimah, F. K., et al., 2020).

Meaningful learning occurs when students experience contextual understanding, allowing them to apply knowledge in real-life situations rather than just memorizing facts (Putri, V. A. R., & Akhwani, 2019). One of the approaches that is considered effective in overcoming this challenge is Project-Based Learning (PjBL). This model has been implemented in various schools throughout Indonesia to improve students' critical thinking and collaboration skills (Darwis, M., et al., 2025).

At Al-Kyai Sitiaji Sukosewu Junior High School, especially in Grade VII, student learning outcomes in social studies remain below the Minimum Mastery Criteria (KKM). The average STS score is only 65, below the required threshold of 70. Observations also show a lack of student engagement, characterized by minimal questions, limited opinions, and low participation in class discussions.

One of the main contributing factors is the use of monotonous lecture-based teaching methods, which tend to promote passive learning (Susanti, S., et al., 2024). This method is also considered ineffective in increasing student understanding and involvement (Puspitasari, 2021). Therefore, innovative learning approaches are needed to foster student participation and conceptual understanding.

Project-Based Learning (PjBL) is one of the relevant instructional models. It promotes active student engagement through the completion of contextual projects, enhancing conceptual understanding and 21st century skills (Firisqina, N., et al., 2024). According to Nurjanah, L., et al., (2021), PjBL is effective in fostering critical thinking, creativity, and collaboration. This model allows students to work independently or in groups to explore problems and present solutions through project-based outcomes (Bagit, I. et al., 2022).

In social studies teaching, PjBL can be applied through projects related to social issues and daily life, such as environmental management or local social investigation (Agusdianita, N. 2023). Unfortunately, the systematic implementation of PjBL in social studies at Al-Kyai Sukosewu Junior High School has not been realized. Previous studies, such as those conducted by Rafik, M. et al., (2022), mainly focusing on science-related subjects.

Theoretically, PjBL is based on constructivist learning theory, which emphasizes the importance of students' active involvement in building knowledge through hands-on experience (Lestari, S. et al., 2024). This approach is also in line with the demands of 21st century skills development in the digital age (Alhayat, A. et al., 2023).

Based on the background mentioned above, this study seeks to examine the effectiveness of the Project-Based Learning model in improving student learning outcomes and participation in Social Studies Class VII at Al-Kyai Sitiaji Sukosewu Junior High School.

Research Methods

This study uses the Classroom Action Research (CAR) approach which aims to systematically address learning problems through repetitive action cycles. The study is based on a model developed by Kemmis and McTaggart, which consists of four stages: planning, action, observation, and reflection. This research was conducted in two cycles (Machali, I. 2022; Ramadhan, A., & Nadhira, 2022).

The type of CAR used in this study is diagnostic, in which researchers directly analyses classroom situations to identify appropriate solutions to learning problems (Saetban, A. A., et al., 2023). Each cycle involves the implementation of the Project-Based Learning (PjBL) model in the social studies learning process for grade VII students at Al-Kyai Sitiaji Junior High School, Sukosewu.

According to Arikunto, as quoted in Khotimah, F. K., et al., (2020), Classroom Action Research consists of four stages: planning, execution of actions, observation, and reflection. The planning stage is ideally done collaboratively between practitioners and observers, which is referred to as collaborative research. The action stage involves the implementation of planned activities, where teachers are expected to be able to carry out lessons naturally and without artificiality. The observation stage is carried out at the same time as the action, because observation must occur during the learning process. The reflection stage is used to analyze the results of the strategies implemented, serving as a basis for improving or adjusting actions in the next cycle.

In the first cycle, the intervention focused on the initial implementation of the PjBL model, with observations made on student engagement and learning outcomes. Reflections from Cycle I are used to refine the Cycle II plan, which is then implemented to further optimize learning outcomes.

This research was conducted at Al-Kyai Junior High School, located in Sitiaji Village, Sukosewu District, Bojonegoro Regency, East Java, during the second semester of the 2024/2025 academic year. The research subjects consisted of 17 Class VII students with diverse backgrounds.

Data collection uses a mixed-methods approach, combining qualitative and quantitative data (Nopita, R. 2022). Qualitative data was obtained through observation of student and teacher activities, as well as project documentation. Quantitative data was collected through learning outcome tests and activity assessment rubrics. All data were analyzed using triangulation techniques to ensure the validity and reliability of the findings.

Results and Discussion

Findings from Cycle I

The research was conducted during the even semester of the 2024/2025 academic year in Class VII of Al-Kyai Junior High School, with a total of 17 students. The implementation of actions in Cycle I follows four stages: planning, action, observation, and reflection.

1. Action Planning

   The researcher designed learning activities based on the Project-Based Learning (PjBL) model with the topic *"Demand, Supply, and Market Price"*. The planning stage involves the preparation of lesson plans (RPPs), student worksheets (LKPD), project-based learning materials, as well as observation instruments and assessment of learning outcomes.

2. Action Implementation

   The learning activity will be held on April 14, 2025. Teachers apply the PjBL syntax through several stages: introduction, video playback and presentation of the material, project-based group discussions, and student presentations and evaluation of project results.

3. Observation

   a. Teacher Activities

   Observation of teacher activities in Cycle I was carried out to assess the level of implementation of the syntax of the Project-Based Learning (PjBL) model during the learning process, which included the introductory, core, and closing stages. The assessment is based on specific aspects relevant to the PjBL model, using an assessment rubric that is aligned with the predetermined evaluation criteria. The results of the observations are then presented systematically in the table below to provide a comprehensive picture of the quality of implementation during Cycle I.

Learning Stages	Maximum Score	Score obtained	Percentage	Group
Introduction	24	14	58,3%	Fair
Main Activities	44	30	68,1%	Fair
Closing	12	9	75,%	Good
Entire	80	53	66%	Good

   b. Student Activities

   To measure the level of student participation during the learning process, observations were made of student activities during the implementation of the Project-Based Learning (PjBL) model in Cycle I. Observations included several aspects that were in line with the syntax of the applied learning model. The results of these observations are presented in the following table:

Learning Stage	Maximum Score	Score obtained	Percentage	Group
Introduction	24	15	62,5%	Fair
Main Activities	44	23	52,2%	Poor
Closing	12	7	58,3	Fair
Entire	80	45	56,2%	Fair

4. Student Learning Outcomes
   To find out the extent of students' mastery of the material presented, a written test was carried out during Cycle I. This evaluation aims to measure the cognitive achievement of students individually after the learning process. Based on the results, data was obtained on student scores and their level of mastery. Details of student learning outcomes in Cycle I are presented in the following table:

Group	Number of Students	Percentage
Mastery (≥70)	7	41%
Not Mastered (<70)	10	59%
Entire	17	100%

5. Reflection – Cycle I
   Reflection on the implementation of learning in Cycle I was carried out not only based on the researcher's own observations but also through discussion and coordination with supervisors, peers, and other parties involved in learning activities at school. This reflection is informed by direct observation in the classroom, as well as evaluation of teacher activities, student participation, and student learning outcomes. The purpose of this reflection is to identify weaknesses and find more effective alternative solutions so that the planning and implementation of learning in the next cycle can be optimized. Reflection findings on teacher activities, student engagement, learning outcomes, and project management are presented in the table below:

Aspects	Identified Issues	Improvement Plan
Teacher Activities	Explanation of the rubric is not clear, the slides are too dense	Use visual rubrics, create more interesting presentation media
Student Activities	Students are passive, reluctant to ask questions, low self-confidence	Add icebreaker activities, call students randomly
Learning Outcomes	59% of students do not meet the minimum criteria	Provide individual training and additional guidance
Project Management	Project schedule not followed, weak monitoring	Print project schedules, enable regular monitoring

Findings of Cycle II Research

Following the reflection carried out in Cycle I, the researcher continued to Cycle II by making improvements to several aspects of the learning process. The purpose of Cycle II is to increase student involvement, increase the effectiveness of teachers in implementing the Project-Based Learning (PjBL) model, and improve student learning outcomes.

1. Action Planning
   Cycle II planning is based on the results of reflection from Cycle I. Improvements were made to learning media, assessment rubrics, implementation of icebreaker strategies, and strengthening group monitoring. Teachers also provide individual exercises and clarify project assessment criteria for students.
2. Action Implementation
   The implementation of the action will be carried out on April 28, 2025 and follows the revised plan. The learning process again applies the Project-Based Learning model

with the same topics and approaches; However, the delivery method is more interactive and supported by interesting visual aids.

3. Observation
   a. Teacher Activities

      The observation of teacher activities in Cycle II aims to evaluate the improvement of the quality of the implementation of Project-Based Learning (PjBL) after the revision carried out in the previous cycle. Observations focused on the implementation of instructional stages introduction, core, and conclusion in accordance with the syntax of the PjBL model. Assessment was carried out systematically using observation instruments developed based on relevant indicators. The results of the observations below provide a quantitative overview of the involvement and effectiveness of teachers in managing the learning process in Cycle II.

Instructional Stage	Maximum Score	Score obtained	Percentage	Group
Introduction	24	23	95,8%	Superior
Core	44	36	81,8%	Superior
Closing	12	11	91,6%	Superior
Entire	80	70	87,5%	Superior

   b. Student Activities

      The observation of student activities in Cycle II aims to assess the increase in student involvement during the Project-Based Learning (PjBL) process. Observations focus on three main stages: the introduction, the core, and the conclusion. The assessment was carried out using observation instruments that refer to indicators of student activities that are in line with the PjBL syntax, such as participation in discussions, group work, project planning, and reflection on both the learning process and the results. The results of observations in Cycle II provide an idea of the extent to which students can actively participate, collaborate effectively, and responsibly during the project-based learning process.

Instructional Stage	Maximum Score	Score obtained	Percentage	Group
Introduction	24	20	83%	Superior
Core	44	35	79,5%	Good
Closing	12	9	75%	Good
Entire	80	64	80%	Superior

4. Student Learning Outcomes

   The evaluation of student learning outcomes in Cycle II was carried out to measure the improvement of cognitive achievement after the implementation of improved instructional strategies. Assessments are conducted through written tests that reflect students' understanding of the topic *of "Demand, Supply, and Market Prices"* in a real-life context. The learning outcome data was analyzed based on the school's Minimum Mastery Criteria (KKM) set at 70. The test results from Cycle II were compared with Cycle I to test the effectiveness of the PjBL model in improving students' conceptual understanding and critical thinking skills. The table below

presents a summary of students who meet or do not meet the mastery criteria in Cycle II.

Group	Number of Students	Percentage
Mastery (≥70)	17	100%
Not Mastered (<70)	0	0%
Entire	17	100%

5. Reflection Cycle II

These reflections show that improvements in instructional strategies have succeeded in improving teacher activity, student engagement, and learning outcomes. The PjBL approach has proven to be effective in creating a collaborative, fun, and meaningful learning environment.

Aspects	Identified Issues	Improvement Plan
Teacher Activities	Teacher activity increased from 66% in Cycle I to 87.5% in Cycle II. This shows that teachers are becoming more effective in implementing the PjBL model, especially in encouraging student involvement during the learning process.	It is recommended that teachers increase the variety of assessments, address remaining weaknesses, and provide more structured feedback. Allowing students to choose their own projects and encouraging collaboration can enrich the learning experience. More in-depth documentation, such as qualitative observations, will help in understanding the full impact of PjBL.
Student Activities	Student activity increased from 56.25% in Cycle I to 80% in Cycle II. Students begin to participate more actively, collaborate, and reflect on their projects effectively. Although the implementation of PjBL has proven to be effective in increasing engagement, some areas still need improvement.	Students are encouraged to be more active in discussions, express their opinions confidently, and take responsibility for completing their projects. Group collaboration and reflection on the learning process must also be strengthened to achieve more optimal results.
Learning Outcomes	Student learning outcomes increased significantly from 41% mastery in Cycle I to 100% in Cycle II. This shows that the implementation of Project-Based Learning (PjBL) is effective in improving students' understanding and achievement in social studies content.	To further improve learning outcomes through PjBL, teachers need to manage the classroom more effectively, provide individual guidance, and design well-structured teaching. Utilizing diverse learning resources, as well as consistently providing feedback to students and encouraging regular reflection, is also important to support understanding and continuous improvement.

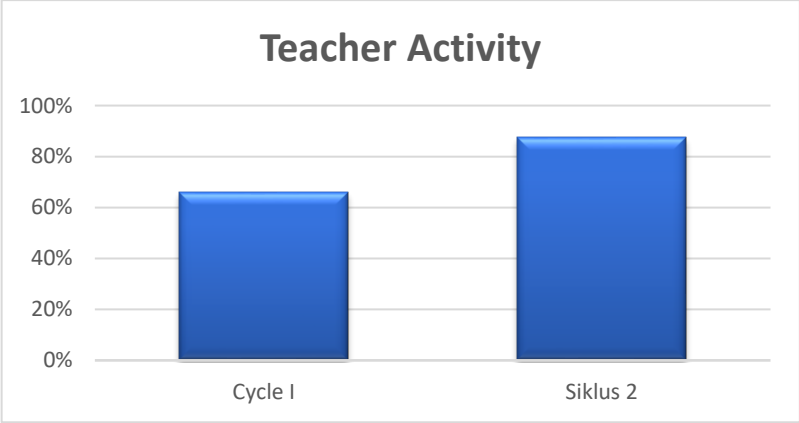
Discussion

This research is a Class Action Research (CAR) conducted at Al-Kyai Sitiaji Junior High School, Sukosewu District, Bojonegoro Regency. The research was conducted in two cycles. The first cycle will be held on April 21, 2025, and the second cycle on April 28, 2025. The main objective of this study is to improve students' mastery of learning through the application of the Project-Based Learning (PjBL) model, especially in the context of creating projects that are relevant to instructional content. In addition, this study aims to examine the effectiveness of teacher performance and students' ability to be involved in the learning process.

Based on the findings of the research obtained through the analysis of teacher activity sheets, student activity sheets, and test instruments, the following data was obtained:

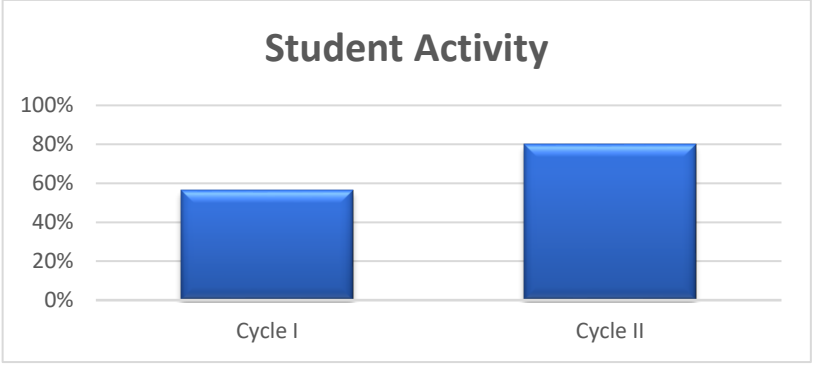
1. Teacher Activities

   Teacher activity increased from 66% in Cycle I to 87.5% in Cycle II, showing an improvement in the quality of the learning process. This increase is influenced by the teacher's ability to reflect on and overcome previous shortcomings. All stages of teaching are carried out in accordance with the lesson plan (RPP), supporting the effectiveness of the learning process. These findings are in line with Mufidah, L. (2021), which states that continuous reflection and improvement by teachers can improve the effectiveness of the overall teaching and learning process.

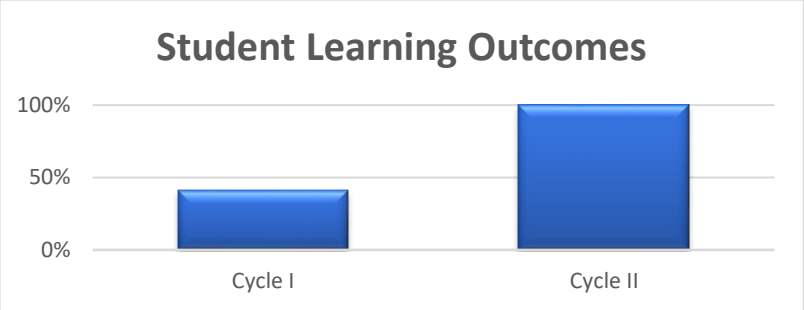


2. Student Activities

   Student activity increased from 56.25% in Cycle I to 80% in Cycle II, included in the "excellent" category. This improvement is influenced by the application of the PjBL model which encourages active student involvement in contextual learning. These findings support the view Alhayat, A. et al., (2023), which states that PjBL increases student motivation and participation, and has a positive impact on both student activities and learning outcomes in social studies.



3. Student Learning Outcomes
   Student learning achievement increased from 41% in Cycle I to 100% in Cycle II. This shows that the application of the Project-Based Learning model is effective in improving academic understanding and performance in social studies among grade VII students at Al-Kyai Junior High School. These findings are consistent with Alhayat, A. et al., (2023), which states that PjBL promotes student engagement, conceptual understanding, and academic achievement through contextual and meaningful learning experiences.



Conclusion

The application of social studies teaching materials based on Project-Based Learning (PjBL) for grade VII students of Al-Kyai Sitiaji Junior High School, Sukosewu, Bojonegoro, has proven to be effective in improving student learning outcomes. Students' mastery in Cycle I only reached 41% (categorized as poor), but showed a significant increase to 100% (categorized as superior) in Cycle II.

This improvement was supported by an increase in teacher activity during the learning process, from 66% (good category) in Cycle I to 87.5% (very good category) in Cycle II. The active role of teachers in designing and facilitating PjBL-based learning contributes to increasing student participation.

Student activities also showed a positive trend, increasing from 56.25% (fair category) in Cycle I to 80% (very good category) in Cycle II. These findings show that active teacher involvement plays an important role in improving student participation and learning outcomes through the application of the PjBL model.

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