



#### **ARTICLE**

# The Use of PBL in Enhancing Character Development and Academic Achievement: A Study on Fourth-Grade of Primary School

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#### **ARTICLE HISTORY**

Received 19 April 2024 Revised 27 June 2024 Accepted 10 October 2024

#### **KEYWORDS**

PBL; Academic Achievement; Problem-Based Learning; Character.

#### **ABSTRACT ENGLISH:**

The purpose of this study is to increase student learning outcomes in Islamic religion and character lessons in class IV of SD Negeri 050650 P.Rambung Kec. Bahorok through the use of a based learning model. In this study, classroom action research was used. Testing, observation, and documentation are the data collecting strategies used. The participants in this study were students in class IV at SD Negeri 050650 P.Rambung Kec. Bahorok. The research findings revealed that employing the Problem Based Learning approach can increase learning outcomes in Islamic religious education and character in class IV of SD Negeri 050650 P.Rambung Kec. Bahorok. This is demonstrated by the overall assessment of 20 children, the improvement in learning outcomes for class IV students through activities using the Problem Based Learning Model, and the presence of 5 children in pre-cycle activities with a decent percentage of 33.3%. Meanwhile, the results of learning improvement activities carried out on class IV children who experienced improvement after carrying out activities using the Problem Based Learning Model with good and very good assessment indicators consisted of nine pupils with a percentage of 60% in cycle I and 12 children with an average of 80% in cycle II.

#### **ABSTRACT INDONESIAN:**

Tujuan dari penelitian ini adalah untuk meningkatkan hasil belajar siswa di kelas IV SD Negeri 050650 P. Rambung Kec. Bahorok pada mata pelajaran agama islam dan budi pekerti dengan menggunakan model pembelajaran berbasis data. Studi ini menggunakan jenis penelitian tindakan kelas (PTK). Tes, observasi, dan dokumentasi adalah metode pengumpulan data yang digunakan. Penelitian ini melibatkan siswa di kelas IV SD Negeri 050650 P.Rambung Kec. Bahorok. Hasilnya menunjukkan bahwa hasil belajar agama islam dan budi pekerti di kelas IV SD Negeri 050650 P.Rambung Kec. Bahorok dapat ditingkatkan dengan menggunakan model pembelajaran berbasis masalah. Seperti yang ditunjukkan oleh penilaian 20 siswa, hasil belajar siswa kelas IV dengan Model Problem Based Learning telah meningkat, dengan 5 siswa mendapatkan persentase 33,3% yang baik pada kegiatan prasiklus. Selain itu, hasil belajar siswa kelas IV telah menunjukkan peningkatan dengan indikator penilaian yang baik dan sangat baik setelah melakukan kegiatan dengan Model Problem Based Learning.

### Introduction

Education is a deliberate and organized endeavor to establish a learning environment and process that enable students to actively cultivate their potential in the areas of religious spiritual strength, self-control, personality, noble character, and the skills required by themselves, society, nation, and state (Ravi, 2022; Elias et al., 2014; Earl, S., & Arthur, 2019). Education is indispensable for the development and realization of each individual, as well as for the advancement of the entire nation. This is due to the fact that knowledge is the foundation of existence; without it, humans are unable to advance. Education enables individuals to acquire knowledge, which in turn enables them to generate concepts that can drive change (Fadhillah et al., 2024).

Nevertheless, our educational system is plagued by the issue of inadequate learning. The learning process does not significantly foster students' capacity to think critically (Yusuf et al., 2023). The current state of science and technology has resulted in a transition from conventional teaching methods to more interactive and engaging ones (Ulfiah., 2023). Classrooms are still frequently the site of traditional education, with minimal student engagement. The majority of educators continue to implement static teaching strategies, including the assignment of workbooks and lectures. Furthermore, teachers frequently depart the classroom with the impression that they have satisfactorily completed the assignment. Despite the fact that there are still numerous instructors worldwide who employ the same approach, students find it tedious due to its lack of interest. Nevertheless, instructors should be more innovative in their own learning, as this is one of the components of successful learning, in addition to learning outcomes.

Therefore, it is imperative that all educators recognize the significance of employing appropriate teaching methods, particularly in the context of Islamic education and character development (Zulkhairi et al., 2022; Skaggs & Bodenhorn, 2006; Sari et al., 2024). In these subjects, it is crucial for students to comprehend, value, and apply religious education in order to cultivate a human being who is dedicated to Allah SWT and possesses a noble character that aligns with the anticipated objectives (Erlidawati & Rahmah, 2022). Nevertheless, students' learning outcomes are insufficiently achieved when learning is conducted without meticulous preparation (Rahmah & Ilham, 2022). The learning outcomes of class IV students in Islamic Religion and Cultivation Lessons at SD Negeri 050650 P. Rambung Kec. Bahorok were observed to be inadequate due to the common issues of children feeling bored and not understanding the explanations provided by the teacher. According to the author's observations, 14 of the 20 students in class IV at SD Negeri 050650 P. Rambung Kec. Bahorok did not achieve the full learning outcomes in character development and Islamic Religious Education lessons. Therefore, in order to accomplish the anticipated objectives, students must implement instructional strategies that enhance their engagement and learning outcomes during educational activities (Sarwar et al., 2012).

Based on the preliminary investigation, it is anticipated that the significance of the appropriate learning method will enhance the learning outcomes of students in Islamic Religious Education and Ethics. Hence, in this instance, one of the objectives of the Problem-Based Learning method is to facilitate students' comprehension of the lessons taught by the instructor (Islamiati et al., 2024). The use of the problem-based learning method enhances the vibrancy of the learning implementation process, which may appear monotonous (Suwanto & Rahman, 2022). Without any reciprocity or response, educators exclusively instruct students on the contents of the textbook.

Thus, the authors are interested in conducting research related to the problem-based learning method to enhance student learning outcomes in Islamic Religion and character lessons, as evidenced by the literacy study mentioned above. Additionally, preliminary investigations conducted with the school and Ustadz (Islamic Educators) at SD Negeri 050650 P. Rambung Kec. Bahorok identified challenges associated with student learning outcomes.

## Literature review

Problem-based learning (PBL) is a learning style that focuses on students and uses real-world situations to motivate them (Ni'mah et al., 2024). It gives pupils challenging and complicated topics that they have to work together with their classmates to solve through discussion and study. As a result, this

strategy is designed to help students develop their skills in critical thinking, problem solving, and teamwork, so that they are better equipped to deal with the issues they will encounter in the real world.

PBL focuses on problems. The learning process starts with the presentation of real-life challenges that are relevant to students (Tanna et al., 2022). These questions are often unclear and do not have just one answer, which encourages students to think more deeply and come up with a variety of different solutions. As a result, students learn how to apply theories in different contexts in addition to memorizing them.

Furthermore, PBL emphasizes learning that is centred around students. In this model, teachers no longer serve as the primary source of information (Ni'mah et al., 2024). Rather, they take on the role of facilitators, assisting students in discovering their own solutions. Students are encouraged to take the initiative to seek out knowledge, to become autonomous learners, and to actively engage with their studies. As a result, learning becomes more important, and students are more engaged in the process.

Group conversation and collaborating with others are crucial components of PBL (Owens & Hite, 2022). Students collaborate in small groups to examine problems, discuss them, share ideas, and work together to come up with solutions. They also learn how to listen to other people's viewpoints, communicate their ideas coherently, and collaborate with others in order to accomplish a shared objective. These skills are important in social situations and in the workplace, where working together is necessary.

Furthermore, this learning style is centred around solving problems. Students must learn theories, search for relevant material, and recognize issues. This strategy encourages students to connect academic concepts to real-world problems more actively, which helps them better appreciate the benefits of what they are studying.

PBL not only enhances students' critical thinking skills, but also helps grow their character. Students are encouraged to study, evaluate, and discover new ideas during this learning process. Using this approach, kids learn to develop virtues like responsibility, discipline, and tenacity when it comes to addressing challenges.

The PBL technique is beneficial because it can assist students in developing abilities like as creativity, cooperation, critical thinking, and communication in the 21st century. When students are confronted with real learning problems, they grow more self-assured. PBL also gives students the opportunity to learn through hands-on experience, which helps them understand and remember the content better.

In general, the problem-based learning approach is a new method that can enhance the quality of learning by engaging students as active participants in the learning process. This strategy is expected to help students not only develop a solid comprehension of academic subjects, but also acquire abilities that they may apply in their everyday life. As a result, PBL has become one of the most recommended systems in contemporary education.

#### Method

This research uses the Classroom Action Research, which aims to improve learning practices in a sustainable manner. This method emphasizes reflection and real action in overcoming learning problems faced in the classroom. PTK is basically inseparable from the professional mission of education which is the responsibility of teachers, so this research is carried out with a collaborative approach between researchers and teachers. Thus, this research is not only oriented towards improving student learning outcomes but also on developing teachers' teaching skills to be productive in delivering material to students.

According to Rahmiaty et al (2022), Classroom Action Research (CAR) is research conducted by a researcher working with teachers in a classroom or school environment to improve learning processes and practices. In the context of this research, the CAR method is used to evaluate the effectiveness of the application of the applied learning model in improving student learning outcomes (Kemmis et al., 2014). The main focus of this research is to identify obstacles in the learning process, implement

improvement strategies, and measure the impact of changes that occur on the level of understanding and student involvement in teaching and learning activities (Larisa et al., 2023).

Data sources in this study were obtained during the implementation of the research through various data collection techniques including observation, tests, and documentation. Observation was used to observe student engagement and the effectiveness of the learning methods applied (Ilham et al., 2024). Tests were conducted to measure the improvement of student learning outcomes after the implementation of certain learning strategies, while documentation was used to record the entire research process, both in the form of field notes, photographs, and video recordings as supporting evidence. All data obtained was then analysed descriptively to get a clearer picture of the effectiveness of the methods used in improving the quality of learning.

# **Result and Discussion** Pre-Cycle

Researchers first looked at the learning outcomes that occurred before the two research cycles began. After that, they provided a description of the data from the two cycles. According to the data that was obtained and shown in graph 1, 10 students were able to demonstrate good and very good abilities when completing the activities utilizing the Problem-Based Learning Model. This represents a percentage of 66.7%. Additionally, 9 students, or 60%, were able to complete the assignment as instructed, while 6 students, or 40%, were able to do it without any help. According to the results, students still have a limited knowledge of the content. As a result, additional efforts are required to enhance the learning outcomes of students.

The researchers needed to make adjustments in order to increase the efficiency of learning because the starting settings were still not good enough. As a result, this inquiry was carried out as a Classroom Action Research (PTK), which included two cycles of improvement. The objective of each cycle-planning, execution, observation, and reflection-is to determine how effective the problembased learning approach is in increasing student learning outcomes. It is anticipated that students will have a better knowledge of the topic and will be more capable of using the learning approach that has been provided if the improvement method is implemented in stages.

During the first cycle of the classroom learning process, students had a better knowledge of problem-based learning and received clearer instructions on how to use it. The second cycle led to a rise in students' active participation and motivated them to become more proficient at solving issues on their own. The goal of this research is to monitor the progress of students over time and evaluate how much this learning model may enhance students' performance in Islamic education and character development.

# Cycle I and Cycle II

The results indicated that the use of the problem-based learning (PBL) approach led to better learning outcomes for students in Islamic Religious Education and Cultivation classes. The data obtained from teachers' notes and observations during the learning process demonstrated that this learning approach boosted students' involvement and understanding. The study was carried out in two cycles, which included preparation, implementation, observation, and reflection. The learning results of each cycle give a summary of how successful the application of problem-based learning is in improving students' learning outcomes.

During the first cycle, the number of students participating increased when the Problem-Based Learning paradigm was used. Graph 2 shows that 12 students (80%) demonstrated strong or excellent skills in executing learning activities using this paradigm. Furthermore, 11 students (73.3%) were able to complete the exercises as instructed, and 10 students (66.7%) were able to complete the Problem-Based Learning activities independently. Furthermore, the results of the students' learning after this problem-based learning showed that nine out of every six students (or 60% of the total students) effectively reached the intended learning targets. Despite the fact that there was some advancement, the outcomes were still not the best, thus there will be further improvements in the following cycle.

After reflecting on cycle I, we found that there were still certain issues that were getting in

the way of the learning process, even though progress had been made. There were some pupils who still struggled to comprehend the concepts that were being presented, and they required further assistance from their instructors. Furthermore, group discussion is a key element of problem-based learning. As a result, various modifications were implemented in cycle II. The modifications include additional instances of problems relating to daily life, boosting interaction between teachers and students, and encouraging all students to actively participate in every step of learning.

The findings from the first cycle were better than those from the second round. According to Graph 3, all 15 students (100%) shown a considerable improvement in their ability to use the Problem Based Learning paradigm. Additionally, 13 students (86.7%) were able to complete the exercises according to the directions provided, and 13 students (86.7%) were able to complete the Problem-Based Learning activities on their own without any help. This demonstrates that pupils are starting to grasp the concept of problem-based learning.

Furthermore, it was seen that students' learning outcomes improved in both Islamic education and character development. The proportion of students who obtained ideal learning outcomes improved from 9 students (60%) in the first cycle to 12 students (80%). This demonstrates that this learning strategy improves students' interest and their ability to think critically.

The effectiveness of the problem-based learning paradigm in this study can be attributed to a number of significant components. To begin with, this paradigm enables students to engage in the learning process more actively by analysing, evaluating, and finding solutions to difficulties. Second, working together in groups allows students to share ideas and learn about issues from multiple points of view. Third, this strategy employs difficulties to motivate students to be more involved and to think critically while they are learning.

In general, the results of this study show that students' understanding of Islamic Religious Education and character development can be improved by using the problem-based learning paradigm in a systematic and organized way. The problem-based learning technique is an effective way to develop students' critical thinking skills, active participation, and understanding of the content being taught, as seen by the significant improvement between the first and second cycles. As a result, teachers can use this learning model as an option to enhance the quality of learning in the classroom.

# The Effectiveness of PBL in Improving Learning Outcomes and Character Development

As students' degree of participation rose from "Good" to "Very Good," observations also showed a notable rise in their participation during group discussions. This development implies that pupils grew more at ease sharing their ideas, so helping to solve problems, and working with their classmates more wisely. By means of a disciplined application of Problem-Based Learning (PBL), students were able to improve their critical thinking and communication abilities, therefore strengthening their capacity to examine and debate difficult subjects. Teachers also proved more adept in guiding the learning process, therefore guaranteeing that conversations stayed targeted and effective. Teachers were able to establish a more engaging and student-centred learning environment by honing their instructional tactics, therefore underscoring the value of PBL in raising both academic performance and classroom involvement.

In general, the results of this study show that the systematic and organized implementation of Problem-Based Learning (PBL) can improve students' understanding of Islamic Education and character development (Benninga et al., 2003). This learning model encourages students to be actively involved in the learning process by exploring real problems, analysing possible solutions, and applying their understanding in concrete situations. The significant improvement between the first and second cycles confirms that this approach not only improves students' academic outcomes, but also enhances their critical thinking skills and confidence in conveying ideas. This is in line with constructivism theory which emphasizes that meaningful learning occurs when students actively construct their own knowledge through experience and social interaction.

The Problem-Based Learning (PBL) technique is proven to be effective in developing a variety of essential skills that students need in facing challenges in the real world. In addition to improving understanding of Islamic Religious Education and Ethics materials, this model also trains students to

solve problems systematically, work together in teams, and develop communication skills and reflective thinking. In the process, students are encouraged to discuss, ask critical questions, and evaluate various alternative solutions before concluding the most appropriate answer. Thus, learning is not just a passive process where students receive information from the teacher, but an active and participatory experience that makes them more responsible for their own learning.

The improvement in learning outcomes that occurred in this study can also be attributed to the changing role of the teacher in the learning process. In the PBL model, the teacher is no longer the only source of knowledge, but rather a facilitator who guides students in finding their own understanding. This provides space for students to explore various perspectives in understanding the concepts of religion and morality taught in Islamic Education and character. In addition, by providing problems that are relevant to everyday life, students can see a direct connection between classroom lessons and their real-life experiences, thus increasing their interest in learning.

Based on the findings of this study, teachers could consider Problem-Based Learning as one of the main approaches in improving the quality of learning in the classroom. The implementation of this model should be done gradually and adapted to the characteristics of the students and the material being taught. By adapting problem-based learning systematically, schools can create a learning environment that is more dynamic, innovative and in line with the needs of 21st century students (Ilham et al., 2023). Therefore, further research on the application of PBL in various subjects and levels of education is needed to enrich teaching strategies that can improve the overall quality of education.

# Conclusion

The results of classroom action research conducted show that the Problem-Based Learning (PBL) Model is clearly successful in raising student learning outcomes in Islamic Education and character development subjects in class IV SD Negeri 050650, Kec. Bahorok. By means of identification, analysis, and individual or group solution of problems, this approach offers chances for students to be more involved in the learning process. The notable advancement in every learning cycle helps one to observe the development in student learning results. Furthermore, increasing student participation in group discussions is evidence of the PBL approach's ability to inspire students to think critically and cooperate in addressing presented issues. Therefore, it can be said that using this learning paradigm affects not only cognitive features but also the social skills development of students by means of interactions and peer cooperation.

The rise in student learning outcomes that approached 80% in the second cycle reflects the success of the Problem-Based Learning approach applied in this study. This shows a notable change from the first findings before the intervention started. Furthermore, it is crucial in guiding students to be more autonomous in their learning and able to apply the acquired knowledge to the framework of actual life are teachers. Furthermore, learning becomes more fascinating and dynamic, which motivates students to follow every learning process with great passion. With these encouraging outcomes, it is believed that the Problem-Based Learning approach can keep being used and improved as an innovative learning strategy to raise the quality of education, especially in learning Islamic Religious Education and Ethics at the elementary level.

#### **Ethical considerations**

This study followed ethical guidelines to assure the integrity and impartiality of the research process. Participation in the study was entirely voluntary, and students are given time to decide what they want to do and participate in learning activities. Before the study begins, the teacher or student is given a clear explanation of the study's purpose, procedure, and any risks. The identities of those who participated in this research are being investigated. Data that is collected does not include names or other personal identifiers in order to ensure the anonymity of each participant. All data and information collected during research will be kept secure and will only be accessible to researchers. Data that is collected will be used for research purposes only and will not be distributed to third parties without authorization. The study's findings will be shared with school officials and students. Aside from that,

the findings of this study will be published in an academic setting to share knowledge with larger educational communities while maintaining the anonymity of participants.

### References

- Benninga, J. S., Berkowitz, M. W., Kuehn, P., & Smith, K. (2003). The relationship of character education implementation and academic achievement in elementary schools. Journal of research in character education, 1(1), 19-32.
- Earl, S., & Arthur, J. (2019). Character and academic attainment: does character education matter. The Jubilee Centre for Character and Virtues Insight Series.
- Elias, M. J., White, G., & Stepney, C. (2014). Surmounting the Challenges of Improving Academic Performance: Closing the Achievement Gap through Social-Emotional and Character Development. Journal of Urban Learning, Teaching, and Research, 10, 14-24.
- Erlidawati, E., & Rahmah, S. (2022). The Educational Values in Fairy Tale Cartoon Film. JETLEE: Journal of English Language Teaching, Linguistics, and Literature, 2(1), 11-17. https://doi.org/10.47766/jetlee.v2i1.203
- Fadhillah, N., Siregar, E. A., Lestari, U. H. P., Rahman, F., & Khalsiah, K. (2024). Society 5.0 in Education: Interactive Learning through Digital Media Integration on Teaching Speaking. Scope: Journal of English Language Teaching, 9(1), 392-402. http://dx.doi.org/10.30998/scope.v9i1.24084
- Ilham, M., Rahman, F., Kholid, M., & Sari, D. D. (2024). The Efficacy of e-Guru Application in Boosting Learning Effectiveness: Does It Deliver Results?. International Journal of Social Learning (IJSL), 4(2), 197-209. https://doi.org/10.47134/ijsl.v4i2.257
- Ilham, M., Rahman, F., Sari, D. D., & Annisaturrahmi, A. (2023). Enhancing Preschool English Vocabulary Through Multimedia Tools: Insights from a Mixed-Methods Study. Al-Athfal: Jurnal Pendidikan Anak, 9(2), 93-102.
- Islamiati, A., Fitria, Y., Sukma, E., Fitria, E., & Oktari, S. T. (2024). The Influence of The Problem Based Learning (PBL) Model and Learning Style on the Thinking Abilities. Jurnal Penelitian Pendidikan IPA, 10(4), 1934-1940. https://doi.org/10.29303/jppipa.v10i4.6219
- Kemmis, S., McTaggart, R., Nixon, R. (2014). Introducing critical participatory action research. The action research planner: Doing critical participatory action research, 1-31.
- Larisa, I., Erlidawati, E., & Rahman, F. (2023). Unlocking Reading Potential: Does English Comics Webtoon Impact Students' Narrative Text Comprehension?. IALLTEACH (Issues In Applied Teaching), 5(2), Linguistics Language 99-105. & https://doi.org/10.37253/iallteach.v5i2.8595
- Ni'mah, A., Arianti, E. S., Suyanto, S., Putera, S. H. P., & Nashrudin, A. (2024). Problem-Based Learning (PBL) Methods Within An Independent Curriculum (A Literature Review). Sintaksis: Publikasi dan Sastra Para ahli Bahasa Inggris, 2(4), https://doi.org/10.61132/sintaksis.v2i4.859
- Owens, A. D., & Hite, R. L. (2022). Enhancing student communication competencies in STEM using virtual global collaboration project based learning. Research in Science & Technological Education, 40(1), 76-102. https://doi.org/10.1080/02635143.2020.1778663
- Rahmah, S., & Ilham, M. (2022). Management of Students' Religious Culture. Development: Studies Educational in Management and Leadership, 1(1), 39-54. https://doi.org/10.47766/development.v1i1.644
- Rahmiaty, Meylina, & Rahman, F. (2022). Instrumen penelitian: panduan penelitian di bidang pendidikan. Yogyakarta: Jejak Pustaka.
- Ravi, S. S. (2022). A comprehensive study of education. PHI Learning Pvt. Ltd.
- Sari, D. D., Ilham, M., Fuadi, N., & Nurviani, R. (2024). The Implementation Learning Media Based on a Culture to Develop Student Character. Journal of Islamic Education Students (JIES), 4(1),
- Sarwar, G. S., Zerpa, C., Hachey, K., Simon, M., & Van Barneveld, C. (2012). Teaching practices and motivation that influence student achievement assessments. International Journal of Education, 4(3), 88.

- Skaggs, G., & Bodenhorn, N. (2006). Relationships between implementing character education, student behavior, and student achievement. *Journal of Advanced Academics*, 18(1), 82-114.
- Suwanto, S., & Rahman, F. (2022). The Implementation of TEYL in Indonesia Revisited: A Study at Primary Schools in Bandung. *IJELR: International Journal of Education, Language, and Religion*, 4(1), 19-30.
- Tanna, P., Lathigara, A., & Bhatt, N. (2022). Implementation of Problem Based Learning to Solve Real Life Problems. *Journal of Engineering Education Transformations*, 35(Special Issue 1).
- Ulfiah, S., Samhudi, S., & Rahman, F. (2024). The Implementation of Rally Coach Strategy in Teaching Reading Comprehension A Quasi Experimental Research. *Journal of English Language and Pedagogy (JELPA)*, 2(1), 13-23.
- Yusuf, F., Usman, H., & Irfan, M. (2023). The Use of Drill Method to Improve Elementary School Students' Learning Outcomes in Vocabulary. *Journal of English Language Teaching*, *Linguistics and Literature*, 3(1), 13-21.
- Zulkhairi, Z., Alwi, S., & Ma'awiyah, A. (2022). Sistem Pendidikan Boarding School dalam Peningkatan Pemahaman Pendidikan Agama Islam Mahasiswa Institut Agama Islam Al-Aziziyah Samalanga. *Pase: Journal of Contemporary Islamic Education*, 1(1), 63-73. <a href="https://doi.org/10.47766/pase.v1i2.1220">https://doi.org/10.47766/pase.v1i2.1220</a>