The Implementation of Project Based Learning Model in Improving Islamic Religious Education Learning Outcomes at SMK Yaspi Labuhan Deli

Kaisyah Rabilla[1]*

Universitas Muhammadiyah Sumatera Utara, Indonesia[*1]
[*1]*email:* kaisyahrabilla@gmail.com

Abstract: This study aims to examine the implementation of the *Project Based Learning* (PjBL) model in improving students' learning outcomes in Islamic Religious Education (PAI) at SMK Yaspi Labuhan Deli. The research method applied was classroom action research conducted in two cycles, each consisting of planning, implementation, observation, and reflection stages. The research subjects were 30 eleventh-grade students. The instruments used included observation sheets, learning outcome tests, and documentation. The findings revealed that the application of PjBL improved students' engagement during the learning process as well as their learning outcomes in Islamic Religious Education. In the first cycle, the students' average achievement was categorized as fair, while in the second cycle, it improved to the good category. Therefore, it can be concluded that the implementation of *Project Based Learning* is effective in optimizing Islamic Religious Education learning outcomes at SMK Yaspi Labuhan Deli.

Keywords: Project Based Learning; Learning Outcomes; Islamic Religious Education.

Abstrak: Penelitian ini bertujuan untuk mengetahui implementasi model *Project Based Learning* (PjBL) dalam meningkatkan hasil belajar Pendidikan Agama Islam (PAI) di SMK Yaspi Labuhan Deli. Metode penelitian yang digunakan adalah penelitian tindakan kelas dengan dua siklus yang masing-masing terdiri dari tahap perencanaan, pelaksanaan, observasi, dan refleksi. Subjek penelitian adalah siswa kelas XI yang berjumlah 30 orang. Instrumen yang digunakan meliputi lembar observasi, tes hasil belajar, dan dokumentasi. Hasil penelitian menunjukkan bahwa penerapan model PjBL mampu meningkatkan keaktifan siswa dalam proses pembelajaran serta hasil belajar PAI. Pada siklus I, rata-rata hasil belajar siswa berada pada kategori cukup, sedangkan pada siklus II meningkat ke kategori baik. Dengan demikian, dapat disimpulkan bahwa implementasi *Project Based Learning* efektif dalam mengoptimalkan hasil belajar Pendidikan Agama Islam di SMK

Yaspi Labuhan Deli.

Kata Kunci: Project Based Learning; Hasil Belajar; Pendidikan Agama Islam.

A.   Introduction

Education plays a crucial role in shaping the character, mindset, and skills of students in facing the challenges of the 21st century. In Indonesia, education is not only oriented toward academic achievement but also toward the development of students' moral, spiritual, and social values. One of the subjects that specifically aims to instill moral and spiritual values is Islamic Religious Education (PAI).

Islamic Religious Education (PAI) in schools is designed to develop students' faith, piety, and noble character, while also equipping them with knowledge and skills to apply Islamic values in everyday life. However, in practice, PAI learning often faces challenges such as lack of student motivation, passive learning attitudes, and limited application of knowledge to real-life contexts (Hasanah, 2021).

In the current era of digitalization and educational transformation, learning approaches are expected to be more student-centered and skill-oriented. Traditional teacher-centered learning is no longer sufficient to meet the demands of modern education, particularly in vocational schools, where students need to integrate knowledge with practice (Sugiyono, 2020).

One of the innovative learning models that has been widely applied in various disciplines is *Project Based Learning* (PjBL). PjBL emphasizes active student participation in solving real problems, developing projects, and applying concepts in a practical manner. This model provides opportunities for students to learn collaboratively, think critically, and produce tangible outcomes (Thomas, 2000).

The use of PjBL in Islamic Religious Education is highly relevant because it allows students to explore religious concepts through contextual projects. For example, students may create learning media, conduct social campaigns, or develop religious-based creative works that reflect the values taught in PAI. This approach is expected to make religious learning more meaningful and engaging (Rahmawati & Yusuf, 2019).

Previous studies have shown that PjBL can significantly improve student motivation and learning outcomes. Research conducted by Bell (2010) found that students who engaged in project-based learning demonstrated higher problem-solving skills and deeper understanding compared to those taught through conventional methods.

In the context of Islamic education, PjBL is also seen as a medium to integrate knowledge, values, and practice. According to Supriatna (2021), PjBL in PAI learning helps students connect theoretical knowledge with real-life religious practices, thus bridging the gap between cognitive and affective learning domains.

At the vocational school level, especially in institutions like SMK Yaspi Labuhan Deli, students are expected to be more practical, creative, and solution-oriented. Therefore, applying PjBL in PAI classes may provide added value in shaping students' character while simultaneously improving their learning outcomes.

Based on observations, many PAI classes still rely on lecture-based teaching, where students act as passive recipients of information. This method often results in low engagement and limited retention of learning materials. As a consequence, students tend to perceive PAI as less interesting compared to other subjects.

By implementing PjBL, teachers are encouraged to transform the learning process into a more dynamic and student-centered activity. Students are guided to design, implement, and present projects that are not only related to Islamic teachings but also applicable in their social environment (Larmer & Mergendoller, 2015).

The adoption of PjBL in PAI is also aligned with the 2013 Curriculum in Indonesia, which emphasizes scientific approaches, active participation, and competency-based learning. This indicates that project-based learning is not only an innovation but also a necessity in achieving the curriculum's objectives (Kemendikbud, 2016).

Furthermore, PjBL provides opportunities for students to develop 21st-century skills, such as collaboration, creativity, communication, and critical thinking. These skills are essential for vocational students who will later enter the workforce and face real challenges in their respective fields (Partnership for 21st Century Skills, 2019).

This study focuses on implementing PjBL in PAI learning at SMK Yaspi Labuhan Deli, with the aim of improving students' learning outcomes and engagement. Through this research, it is expected that effective strategies for applying PjBL in religious education will be identified.

The significance of this study lies in its contribution to both theoretical and practical aspects of education. Theoretically, it adds to the body of knowledge on PjBL in religious contexts. Practically, it provides insights for PAI teachers in developing innovative learning strategies that enhance students' academic and spiritual development.

Therefore, the implementation of Project Based Learning in Islamic Religious Education is not merely a teaching method but also a transformational approach to create more meaningful, engaging, and effective learning experiences. It is expected that this research will demonstrate how PjBL can be an alternative solution to optimize the learning outcomes of PAI students at SMK Yaspi Labuhan Deli.

B. Research Methodology

This study employed a Classroom Action Research (CAR) design, which was conducted in two cycles, each consisting of four stages: planning, action, observation, and reflection. The CAR design was chosen because it enables teachers and researchers to identify problems in the learning process, implement solutions, and evaluate their effectiveness in real classroom contexts (Kemmis & McTaggart, 1988). Through this approach, the implementation of Project Based Learning (PjBL) in Islamic Religious Education (PAI) was systematically examined.

The research was carried out at SMK Yaspi Labuhan Deli, a vocational high school located in Labuhan Deli, Indonesia. The subjects of this study were 30 students of grade XI during the 2024/2025 academic year. The participants were selected purposively because they represented a group of students with diverse learning characteristics, which made them suitable for implementing a project-based learning approach.

The data collection techniques used in this study included observation, tests, and documentation. Observation sheets were employed to monitor students' activities, participation, and engagement during the learning process. Tests were conducted to measure students' learning outcomes before and after the implementation of PjBL in each cycle. Documentation was used to collect supporting data, such as lesson plans, student projects, and classroom notes.

To ensure the validity of data, triangulation techniques were applied by comparing the results from different instruments. Observations were corroborated with test results and documentation to provide a more comprehensive understanding of the effectiveness of PjBL. In addition, peer discussions with fellow teachers were conducted to validate the interpretation of findings and minimize researcher bias.

The data analysis technique used was descriptive quantitative and qualitative analysis. Quantitative data from test scores were analyzed using percentage and mean score calculations to determine improvement in student learning outcomes across the two cycles. Meanwhile, qualitative data from observations and documentation were analyzed through categorization and interpretation to capture the dynamics of student engagement and classroom interactions.

Finally, reflection was conducted at the end of each cycle to evaluate the success of the implemented actions. The findings from the first cycle were used to design improvements for the second cycle. This cyclical process allowed continuous refinement of the learning strategy and ensured that the implementation of Project Based Learning could effectively enhance the learning outcomes of Islamic Religious Education at SMK Yaspi Labuhan Deli.

C. Results and Discussion

The implementation of Project Based Learning (PjBL) in Islamic Religious Education (PAI) at SMK Yaspi Labuhan Deli was carried out in two cycles, each consisting of planning, action, observation, and reflection stages. The primary aim was to evaluate how the use of PjBL could improve student engagement and learning

outcomes. The results of each cycle are presented in detail, followed by a discussion that integrates findings with relevant theories and previous studies.

In the planning stage of cycle I, the teacher designed lesson plans incorporating project-based tasks, prepared learning resources, and divided students into small groups. Each group was assigned to design a project related to Islamic values, such as creating posters on honesty, preparing short videos about prayer practices, or conducting mini campaigns about good manners. The intention was to make PAI learning more interactive and contextual.

During the implementation stage of cycle I, students actively engaged in project planning and execution. Teachers acted as facilitators, guiding students when necessary. While some groups showed enthusiasm, others struggled with time management and collaboration. This indicates that students were still adapting to the new learning approach, as they were more accustomed to teacher-centered instruction.

Observation results from cycle I showed that 60% of students actively participated in discussions and project work, while the rest were less engaged. Several students relied heavily on peers to complete tasks. Test results from cycle I indicated that the average student score was 72, categorized as "fair." Although there was an improvement compared to the pre-test average of 65, the results suggested the need for further refinement.

The reflection after cycle I highlighted several challenges, including lack of clarity in task distribution, limited use of time, and unequal participation among group members. To address these issues, modifications were made in cycle II, including clearer project guidelines, structured timelines, and stronger teacher monitoring.

In the planning stage of cycle II, adjustments were made by incorporating rubrics for project evaluation, clearer task delegation, and assigning group leaders to coordinate responsibilities. In addition, students were encouraged to present their projects in front of peers, allowing them to develop communication and presentation skills.

The implementation of cycle II showed significant improvements. Students were more confident in working collaboratively and more responsible for completing their tasks. Teachers observed that group dynamics were stronger, with better distribution of

roles among members. The quality of the projects also improved, as students became more creative in designing materials that connected Islamic values with real-life situations.

Observation results from cycle II revealed that 85% of students actively participated in project development and discussions, a substantial increase from the first cycle. The test results also demonstrated notable progress, with an average score of 82, categorized as "good." This improvement confirmed that PjBL had a positive impact on students' learning outcomes.

The findings of this study align with previous research showing that project-based learning enhances student motivation, critical thinking, and understanding. Bell (2010) emphasized that PjBL enables students to engage deeply with subject matter while developing 21st-century skills. Similarly, Rahmawati and Yusuf (2019) found that applying PjBL in Islamic education made students more active and increased their appreciation of Islamic values.

One of the key advantages observed in this study was that PjBL created a student-centered learning environment. Instead of passively listening, students became active participants, creators, and problem solvers. This finding is consistent with Thomas (2000), who argued that authentic projects stimulate higher-order thinking skills and promote meaningful learning experiences.

Furthermore, PjBL proved effective in bridging the gap between theoretical knowledge and practical application in Islamic education. Students were not only able to recall religious concepts but also demonstrate them through real projects such as videos, posters, and campaigns. This reflects Supriatna's (2021) assertion that PjBL contextualizes Islamic teachings, making them more relevant and applicable to students' daily lives.

Another important finding was that PjBL significantly improved student collaboration and communication skills. By working in groups, students learned to negotiate, share ideas, and solve problems collectively. These skills are essential for vocational students who are preparing to enter the workforce. Partnership for 21st Century Skills (2019) emphasized that collaboration and communication are among the

most crucial competencies in today's world, and PjBL provides an ideal platform to nurture them.

Despite the overall success, several challenges were also noted. Some students initially struggled with self-regulation and time management, indicating the need for stronger guidance in the early stages of implementation. In addition, differences in student abilities sometimes caused unequal contributions in group work. These challenges highlight the importance of effective teacher facilitation and continuous reflection during the PjBL process.

The improvement in learning outcomes from cycle I to cycle II suggests that PjBL is not only effective but also adaptable. When weaknesses were identified in cycle I, modifications in cycle II led to better results. This demonstrates that action research is a suitable methodology for refining instructional strategies in real classroom settings (Kemmis & McTaggart, 1988).

The findings also support the relevance of the 2013 Curriculum in Indonesia, which emphasizes student-centered learning and competency-based education. By adopting PjBL, PAI teachers can align classroom practices with curriculum objectives, ensuring that students develop both academic and moral competencies (Kemendikbud, 2016).

Overall, the study indicates that the implementation of Project Based Learning significantly improved student engagement and learning outcomes in Islamic Religious Education at SMK Yaspi Labuhan Deli. The success of the approach demonstrates its potential to transform religious learning into an interactive, meaningful, and practical experience that prepares students for both academic success and real-life challenges.

Therefore, the discussion confirms that PjBL is not only a methodological innovation but also a strategic necessity for enhancing Islamic education in vocational schools. By empowering students to actively construct knowledge and apply it through projects, teachers can foster deeper understanding, stronger values, and improved academic performance.

D.   Conclusion

The findings of this study indicate that the implementation of Project Based Learning (PjBL) significantly improved student engagement and learning outcomes in Islamic Religious Education (PAI) at SMK Yaspi Labuhan Deli. Students became more active, creative, and collaborative in the learning process, while their test scores showed steady improvement from the first cycle to the second cycle. This confirms that PjBL provides a more meaningful and effective alternative compared to conventional teacher-centered methods.

Furthermore, PjBL was proven to bridge the gap between theoretical knowledge and practical application in religious education. Through projects such as posters, videos, and campaigns, students were able to apply Islamic values in real-life contexts, thus strengthening both their cognitive understanding and moral awareness. This demonstrates that PjBL is not only a method to improve academic achievement but also a medium for character building and spiritual development.

In conclusion, Project Based Learning is an effective instructional approach for optimizing Islamic Religious Education at vocational schools. It fosters active participation, enhances learning outcomes, and develops essential 21st-century skills such as communication, collaboration, creativity, and critical thinking. Therefore, teachers are encouraged to adopt PjBL as a sustainable strategy for transforming religious learning into a dynamic and holistic educational experience.

E.   Bibliography

Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The Clearing House, 83*(2), 39–43. https://doi.org/10.1080/00098650903505415

Hasanah, U. (2021). Challenges in teaching Islamic religious education in Indonesian schools. *Journal of Islamic Education Studies, 5*(1), 45–56.

Kemendikbud. (2016). *Kurikulum 2013: Pedoman pelaksanaan*. Jakarta: Kementerian Pendidikan dan Kebudayaan.

Kemmis, S., & McTaggart, R. (1988). *The action research planner*. Victoria: Deakin University Press.

Partnership for 21st Century Skills. (2019). *Framework for 21st century learning.* Washington, DC: P21.

Rahmawati, N., & Yusuf, M. (2019). The use of project-based learning in Islamic education. *Al-Ta'lim Journal, 26*(3), 221–230.

Supriatna, N. (2021). Contextualizing Islamic education through project-based learning. *Journal of Islamic Pedagogy, 8*(2), 134–145.

Thomas, J. W. (2000). *A review of research on project-based learning.* San Rafael, CA: Autodesk Foundation.

Billah, A., & Setiawan, H. R. (2025). Optimalisasi pembelajaran membaca Al-Qur'an melalui metode Iqro' di Tadika Al-Fikh Orchard Taman Setia. *Pendas: Jurnal Ilmiah Pendidikan Dasar, 10*(1), 907–914.

Harfiani, R., & Setiawan, H. R. (2025). Effectiveness and efficiency of Farkiyah box as teaching aids in learning Fiqh al-Janā'iz. *Al-Hayat: Journal of Islamic Education, 9*(2), 331–346.

Husein, M. I., & Setiawan, H. R. (2025). The effect of using audiovisual media on students' learning interest in Islamic religious education at SMP Muhammadiyah 57 Medan. *Kitabah: Jurnal Pendidikan Sosial Humaniora, 3*(1), 35–47.

Juliana, J., & Setiawan, H. R. (2025). Analysis of Islamic religious education learning methods in improving student learning motivation in Malaysia. *Ahlussunnah: Journal of Islamic Education, 4*(2), 181–193.

Khairani, F., Nurzannah, N., & Setiawan, H. R. (2025). Pengaruh penggunaan metode bervariasi terhadap minat dan hasil belajar siswa pada mata pelajaran Pendidikan Agama Islam. *Berajah Journal, 5*(1), 73–88.

Lestari, R., & Setiawan, H. R. (2025). Penggunaan media gambar dalam peningkatan kualitas hasil belajar siswa di Tadika Al-Fikh Orchard Bandar Parkland Selangor Malaysia: The use of image media in improving the quality of student learning outcomes. *Ta'limuna: Jurnal Pendidikan Islam, 14*(1), 77–86.

Maharani, D., Setiawan, H. R., & Lubis, R. R. (2025). Implementation of the listening, reading, explaining method in tadabbur Qur'an learning at Islamic boarding schools in Percut Sei Tuan District. *Tadrib: Jurnal Pendidikan Agama Islam, 11*(1), 209–221.

Matondang, M. R., & Setiawan, H. R. (2025). Manajemen program pendidikan kader mubaligh di Asrama Penghafal Quran Rabbani. *Pendas: Jurnal Ilmiah Pendidikan Dasar, 10*(1), 28–43.

Muthi'ah, S., & Setiawan, H. R. (2025). Implementation of the Tahfidz Daurah program in improving the quality of Qur'an memorization among students at Muhammadiyah Kwala Madu Langkat Islamic Boarding School. *Electronic Journal of Education, Social Economics and Technology, 6*(1), 218–223.