

## CHALLENGES IN IMPLEMENTING PROBLEM BASED LEARNING IN MADRASAH ALIYAH

**Suyuti**

Universitas Negeri Jakarta, Indonesia  
E-mail: yuti@unj.ac.id

### **Abstract**

PBL is a learning method that is focused on solving real problems, which aims to improve students' analytical, critical and collaborative skills. Despite having various benefits, implementing PBL in Madrasah Aliyah faces a number of significant challenges. One of the main challenges is limited resources, including facilities, supporting tools, technology and funds. Teacher readiness is also a crucial obstacle, because not all teachers have sufficient knowledge and skills to implement PBL effectively. The school mentality and culture that is still attached to traditional learning methods also makes the transition process to PBL difficult. Time management was another challenge, given the busy curriculum and difficulty in managing time for PBL projects. In addition, evaluating and assessing student learning outcomes in a PBL context requires the development of more adaptive and relevant tools. The final challenge is in terms of collaboration and engagement, both between students and with external parties such as the community and industry. This research concludes that to overcome these challenges, commitment and collaborative efforts are needed from various parties, including school management, teachers, students, parents and other stakeholders. Potentially effective solutions include intensive training for teachers, development of supportive policies, and the formation of strategic partnerships with external parties. In this way, obstacles in implementing PBL can be overcome and this method can provide maximum benefits in improving the quality of education at Madrasah Aliyah.

**Keywords:** Implementation, Problem Based Learning, Madrasah Aliyah

### **INTRODUCTION**

In this era of globalization, the education system continues to undergo significant transformation to adapt to the needs of dynamic times. One innovative approach that has been widely adopted in the education system is Problem Based Learning (PBL) (Ilma & Wulandari, 2023). PBL is a learning method that emphasizes problem solving as the center of the learning process. This method aims to develop students' critical thinking skills, problem

solving abilities and independent learning. However, although there have been many studies showing the effectiveness of PBL in improving student learning outcomes, its implementation faces various challenges at various levels of education, including at Madrasah Aliyah (Park & Datnow, 2022).

Research on the implementation of PBL in Madrasah Aliyah is still limited, even though this educational institution plays an important role in forming the character and intellect of the younger generation, especially in Indonesia. The challenges faced in implementing PBL in Madrasah Aliyah include teacher readiness, student readiness, school management support, infrastructure and existing learning culture. Many teachers at Madrasah Aliyah have not received adequate training regarding PBL, and students are often less familiar with learning methods that require active participation and independent thinking processes (Sandoval, 2024). Apart from that, support from school management and the availability of adequate facilities are also determining factors for the success of PBL implementation. Understanding these challenges is a crucial first step to creating an effective solution strategy.

This literature review aims to dig deeper into the various challenges and potential strategies that can be taken to overcome obstacles in implementing PBL in Madrasah Aliyah. By reviewing various relevant studies and literature, it is hoped that it can provide comprehensive insight into actual conditions and theoretical perspectives that can be used to develop more effective learning approaches. It is hoped that the results of this study can be a reference for educators, policy makers and education managers in implementing PBL more optimally, so that they can improve the quality of education at Madrasah Aliyah as a whole.

Apart from that, this research will also identify key factors that support the successful implementation of PBL in Madrasah Aliyah. Several studies show that teachers' mental and technical readiness, high student involvement, and inclusive school management support are some of the factors that influence the success of PBL. By improving training and professional development for teachers, students can be more motivated, and schools can provide supporting facilities and policies, PBL can be implemented more effectively. Technological literacy and access to adequate learning resources are also important components that cannot be ignored in implementing PBL (Siregar et al., 2023).

This research will also highlight the important role of school culture in supporting or hindering PBL implementation. Traditional school culture and

resistance to change are obstacles that are often encountered. Therefore, transforming school culture to prioritize collaboration, innovation and scientific exploration is a must. This literature review will discuss how Madrasah Aliyah can build a learning culture that is more adaptive and supports the PBL method, so that students not only receive information, but are also able to become skilled problem solvers (Maheni et al., 2024).

This study aims to provide practical recommendations that can be implemented by Madrasah Aliyah in strengthening the implementation of PBL. These recommendations include strategies to overcome existing barriers, such as improving teacher training, providing better facilities, and implementing policies that support learning innovation. Apart from that, it is also important to strengthen relationships between schools, parents and the community in supporting the success of PBL. With this collaborative approach, it is hoped that Madrasah Aliyah can implement PBL effectively, which will ultimately improve the quality of education and develop students' potential optimally.

## **RESEARCH METHOD**

The study in this research is qualitative with literature. The literature study research method is a research approach that involves the analysis and synthesis of information from various literature sources that are relevant to a particular research topic. Documents taken from literature research are journals, books and references related to the discussion you want to research (Earley, M.A. 2014; Snyder, H. 2019).

## **RESULT AND DISCUSSION**

### **Problem Based Learning Concept**

The learning model using problem based learning (PBL) is a student center learning model. The PBL learning process presents real problems as a learning resource so that students can solve problems and find solutions. (Chen, 2022) explains that problem-based learning is student-centered learning that is in accordance with the principles of constructivism. The principle of constructivism is that students can build their knowledge through the problems they are given.

In PBL, the problems used are problems that are unclear or problems that have not yet been resolved. With these problems still floating around, students are expected to be able to deepen and look for the main issues so that they can find a solution. (Husna et al., 2024) stated that PBL is a model

that is built based on a real problem in life and is still unstructured, unclear and has not been identified, making it a confusing situation with a number of other problems.

The application of the PBL model so that students are able to increase understanding by searching, exploring information by determining and recognizing problems and to be able to find solutions and conclude based on what they have analyzed. (Lembang et al., 2024) explains that PBL is a learning model where educational resources come from a problem, the type of problem used adapts to the material and is usually a problem in everyday life. Problems that exist in life are introduced and studied so that students understand the problem and are able to know how to solve it.

In line with the opinion above (Daly, 2024) explains that problem-based learning (PBL) is based on constructivism theory which has the following characteristics:

1. Students can gain understanding of the environment by interacting. Problems are used as a learning resource to become a learning reference and to achieve the expected learning objectives from the material.
2. Students get stimulation from problems directly which causes students' interest in learning. The stimulation received by students causes the atmosphere to look for ways to reduce anxiety or discomfort so that students can find ways to get out of this atmosphere.
3. Learning and experience occur through a collaborative process between experience and learning. This means that the knowledge that students have is the result of what they have obtained from the learning and experiences they have had.

### **Teacher Challenge**

The implementation of Project-Based Learning (PBL) in Madrasah Aliyah faces various challenges, especially from the teacher's side. One of the main challenges is the limited knowledge and skills of teachers regarding PBL methods. Many teachers are not familiar with this approach and therefore require intensive training to understand and apply PBL effectively. This includes the ability to design relevant projects, provide clear direction to students, and assess their work objectively. Without a solid understanding, teachers may feel less confident and tend to return to traditional teaching methods that they are more familiar with (Cecilio-Fernandes et al., 2024).

Apart from that, the high workload also poses a significant challenge for teachers. Implementing PBL often requires more complicated preparation

and takes longer than conventional teaching methods. Teachers must invest a lot of time in planning projects, monitoring student progress, and providing continuous constructive feedback. With existing administrative tasks and other responsibilities, this additional burden can cause stress and burnout for teachers, thereby reducing the effectiveness of PBL implementation (Schneider, 2023).

Another challenge is the lack of adequate support and resources. PBL often requires tools and materials that are not always available in schools, such as access to technology, adequate work space, and specific project materials. Apart from that, support from school management is also very important for the success of PBL. Without this support, teachers may have difficulty in overcoming obstacles that arise during the learning process. Lack of support can also result in minimal collaboration between teachers, which can actually be a source of inspiration and assistance in overcoming various problems faced (Allotta, 2023).

Apart from limited knowledge, workload, and lack of resources, teachers at Madrasah Aliyah also face challenges in terms of classroom management when implementing PBL. The PBL method often involves group work and more independent learning activities by students. This can cause challenges in maintaining classroom discipline and ensuring every student participates actively (Moral-Santaella & Sánchez-Lamolda, 2023). Teachers need to have strong classroom management skills to be able to effectively guide students, strengthen their motivation, and overcome group dynamics that may arise, such as differences in levels of participation or conflict between group members.

On the other hand, learning evaluation in PBL also requires a different and often more complex approach. Teachers should look for ways to assess project processes and outcomes that are holistic, taking into account various aspects such as teamwork, creativity, and students' problem-solving abilities. This assessment must be continuous and more reflective, which can be an obstacle for teachers who are used to conventional assessment systems that are more structured and quantitative (Hallman et al., 2022). This situation requires teachers to develop assessment instruments that are able to comprehensively capture various student skills and competencies.

Apart from technical and managerial aspects, cultural challenges are also something that cannot be ignored. In many Madrasah Aliyah, both teachers and parents may have a mindset that is more inclined towards traditional education where the main focus is academic achievement as

measured through tests and examinations. The adoption of PBL, which places students at the center of learning and places greater emphasis on active involvement and critical thinking skills, may not be fully understood or accepted by all stakeholders (Swaminathan, 2022). Therefore, a paradigm shift and intensive socialization are needed so that PBL can be implemented more effectively and receive full support from all school components.

### **Student Readiness**

Students' readiness to take part in Project-Based Learning (PBL) at Madrasah Aliyah is an important aspect that must be considered in its implementation. One of the main factors that determines students' readiness is their ability to work independently and collaboratively (Indrasari & Wulandari, 2023). In PBL, students are required to take the initiative in digging up information, preparing plans, and implementing projects in stages. Therefore, students who have critical thinking skills, are able to manage time well, and have the ability to work in teams tend to be better prepared to participate in learning using this method. On the other hand, students who are used to passive learning methods may take longer to adjust (RAMAZANOĞLU et al., 2022).

Apart from that, students' intrinsic motivation is also the key to their readiness to take part in PBL. Students need to have high curiosity and be motivated to learn through a process of exploration and solving real problems. This motivation is often influenced by the relevance of a given project to their interests and needs. If the project feels relevant and challenging, students tend to be more enthusiastic and eager to participate actively. On the other hand, if students feel that the project given is less interesting or too difficult, then their level of participation and commitment may decrease (Lachebo et al., 2024). Therefore, it is important for teachers to design projects that take into account students' interests and provide clear, achievable goals.

The availability of support and resources also influences student readiness. Students need access to resources such as technological devices, project materials, and a conducive learning environment to be able to participate in PBL well. Apart from that, guidance and support from teachers as well as positive interactions between fellow students are very important in this process. This support can take the form of regular constructive feedback, encouragement, and assistance in overcoming difficulties encountered during project implementation. Without adequate support and resources, students

may feel difficult and stressed, which can ultimately hinder their learning process in a PBL environment (Harris, 2024).

To ensure students' readiness to take part in Project Based Learning (PBL), various preparatory steps need to be taken. One way is through providing initial training regarding the PBL method itself. This training aims to equip students with an adequate understanding of what PBL is, how it works, as well as the necessary skills such as effective communication, time management, and group collaboration (Zulkifli, 2022). With this training, students will be more prepared and confident in undergoing a learning process that may be different from the conventional methods they are used to.

Apart from training, the teacher's role in guiding students during the PBL process is very crucial. Teachers must take the role of facilitators who accompany, encourage and motivate students continuously. They must be prepared to provide constructive feedback and help students overcome challenges that arise during project implementation. In this way, students will feel supported and more comfortable in exploring new ideas and developing their skills. Teachers must also facilitate an inclusive and collaborative learning environment so that all students feel motivated and participate actively (Oprisan, 2022).

Apart from that, involving parents and the community can also support student readiness in PBL. Good communication between teachers and parents is important to ensure that parents understand and support this learning method. Parents can provide additional encouragement and help at home, as well as play a role in evaluating projects carried out by students. Community involvement can also provide students with broader and more relevant learning opportunities in the real world, increasing their motivation and understanding of the impact of the projects they work on. Collaborative support from various parties will help create a learning ecosystem that supports the success of PBL (Karimah & Wulandari, 2023).

### **Role of School Management**

School management plays an important role in supporting the implementation of Project Based Learning (PBL) at Madrasah Aliyah. One of management's main roles is to design policies and strategies that support the overall implementation of PBL. This includes providing necessary resources, such as adequate facilities, tools, and project materials, as well as ensuring access to supporting technology. Management must also ensure that learning

schedules are arranged in such a way that students have enough time to complete projects. Logistical and infrastructure support from school management is very crucial for the success of implementing PBL (Agustin & Shofiyah, 2023).

School management must be committed to providing training and professional development to teachers. Teachers who act as facilitators in PBL need to have a deep understanding of this method as well as the skills necessary to implement it effectively. School management must provide ongoing training programs, workshops and seminars to equip teachers with the latest knowledge and skills in PBL. Apart from that, another form of support is providing a platform for collaboration and sharing best practices among teachers, so that they can learn from each other and improve their competence in implementing PBL (Ekasari et al., 2023).

School management also plays a role in creating a collaborative culture that supports PBL throughout the school community. This includes encouraging collaboration between teachers, students, parents, and other stakeholders. Management must facilitate effective communication and involvement of all parties in the project-based learning process. This can be done through discussion forums, regular meetings, as well as activities involving the school and non-school communities. By creating a culture of collaboration and active participation, school management can encourage a spirit of innovation and improve the overall quality of learning, ensuring that PBL can be implemented successfully and provide maximum benefits for students (Wulandari et al., 2022).

School management also plays a role in evaluating and monitoring the implementation of Project Based Learning (PBL). To ensure that PBL runs according to the expected goals, management needs to develop effective evaluation tools and procedures. This includes collecting and analyzing data regarding student progress and learning outcomes, as well as feedback from teachers and students regarding the obstacles and challenges faced. By conducting regular evaluations, management can identify areas that need improvement and provide additional intervention or support as needed (Nebieridze, 2024).

Apart from internal evaluation, school management can also establish partnerships with other educational institutions, universities, or organizations outside the school to gain an external perspective on the implementation of PBL in their school. This partnership can open access to additional resources, best practices, and broader professional development opportunities for

teachers. Through collaboration with external parties, management can adopt the latest innovations in education and ensure that the PBL programs implemented are always relevant and have a positive impact on student development (Nassir & Benoliel, 2023).

School management must promote the success and document the process of implementing PBL in their schools. This promotion is not only important to attract attention and support from parents and external stakeholders, but also to build a sense of pride and achievement among students and teachers. Documentation of successful projects can be displayed through presentations, exhibitions, social media, or school publications (Shamdas, 2023). By celebrating successes and demonstrating tangible results from PBL, school management can strengthen the entire school community's commitment to this learning method and inspire improvements in educational practices in the future.

## **CONCLUSION**

The implementation of Problem Based Learning (PBL) in Madrasah Aliyah faces various challenges that need to be overcome to achieve optimal results. These challenges can be summarized as limited resources, teacher readiness, school mentality and culture, time management, evaluation and assessment, collaboration and involvement. To overcome these challenges, commitment and collaborative efforts are needed from various parties, including school management, teachers, students, parents and other stakeholders. Innovative solutions such as intensive training, development of supportive policies, and strategic partnerships with external parties can help overcome these obstacles and ensure that the implementation of PBL in Madrasah Aliyah is successful and has a positive impact on the teaching and learning process.

## **REFERENCES**

- Agustin, L. D., & Shofiyah, N. (2023). The Effect of Applying the Problem Based Learning (PBL) Model in Reducing Student Misconceptions in Science Learning of 4th Grade Elementary School. Query date: 2024-07-24 11:08:52. <https://doi.org/10.21070/ups.1628>
- Allotta, E. (2023). Teachers' Experiences that Challenge their Decision to Continue: What Teachers Really Need. *Australian Journal of Teacher Education*, 48(6). <https://doi.org/10.14221/1835-517x.6087>
- Cecilio-Fernandes, D., Steenhof, N., & Sandars, J. (2024). The challenge of transfer to clinical practice: The illusion of learning and illusion of

- teaching. *Medical Teacher*, Query date: 2024-07-24 10:57:25, 1–2. <https://doi.org/10.1080/0142159x.2024.2323243>
- Chen, J. (2022). Problem-Based Learning and Inquiry Learning. *Cognitive Mapping for Problem-Based and Inquiry Learning*, Query date: 2024-07-24 10:45:29, 13–30. <https://doi.org/10.4324/9781003305439-3>
- Daly, K. (2024). What is Problem-Based Learning? Creating Equity and Access for Gifted Learners, Query date: 2024-07-24 10:45:29, 23–31. <https://doi.org/10.4324/9781003452461-4>
- Earley, M. A. (2014). A synthesis of the literature on research methods education. *Teaching in Higher Education*, 19(3), 242-253.
- Ekasari, A., Diantoro, M., & . P. (2023). The Ability of Problem-based Learning (PBL) to Improve Problem-solving Skills on Heat Topic Among High School Students. *KnE Social Sciences*, Query date: 2024-07-24 11:08:52. <https://doi.org/10.18502/kss.v8i10.13454>
- Hallman, H. L., Rios, A., Craig, C. J., & Hill-Jackson, V. (2022). Teacher Education’s Moment: From Solution to Challenge. *Journal of Teacher Education*, 73(2), 127–128. <https://doi.org/10.1177/00224871221076906>
- Haris, A. (2024). Students’ Self-Directed Learning Readiness with the Online Learning Model. *International Journal of Social Science and Human Research*, 7(3). <https://doi.org/10.47191/ijsshr/v7-i03-12>
- Husna, M., Sudiyanto, & Rintayati, P. (2024). The influence of project-based learning and problem-based learning models on science learning ability from the perspectives of learning interest. *Multidisciplinary Science Journal*, 6(8), 2024137–2024137. <https://doi.org/10.31893/multiscience.2024137>
- Ilma, M., & Wulandari, F. E. (2023). Problem Based Learning (PBL) Model on Students’ Environmental Literacy Ability in Elementary School Natural Science Lessons. *Indonesian Journal of Education Methods Development*, 18(2). <https://doi.org/10.21070/ijemd.v22i.741>
- Indrasari, A., & Wulandari, F. E. (2023). The Influence of the STEM-Based Project Based Learning (PjBL) Model on Students’ Ecoliteracy Ability. Query date: 2024-07-24 11:01:27. <https://doi.org/10.21070/ups.2628>
- Karimah, F., & Wulandari, F. (2023). Influence of an Integrated STEM Project-Based Learning toward Science Literacy Abilities Students in Elementary School’. Query date: 2024-07-24 11:01:27. <https://doi.org/10.21070/ups.1853>
- Lachebo, G. C., Thuo, M. W., Labiso, T. O., & Demissie, E. B. (2024). Students’ Readiness to Participate in Science Project Competitions: Views from Secondary Schools in Southern Ethiopia. Query date: 2024-07-24 11:01:27. <https://doi.org/10.2139/ssrn.4780015>
- Lembang, S. T., Arsyad, N., & Bernard. (2024). THE IMPLEMENTATION OF THE PROBLEM-BASED LEARNING MODEL BASED ON TORAJA CULTURE IN

- MATHEMATICS LEARNING. *MaPan*, 12(1), 36–46.  
<https://doi.org/10.24252/mapan.2024v12n1a3>
- Maheni, M., Nawawi, S., & Aini, F. (2024). Implementasi Model PBL Untuk Meningkatkan Hasil Belajar Peserta Didik Pada Materi Pemanasan Global di SMAN 09 Palembang. *BIODIK*, 10(2), 199–209.  
<https://doi.org/10.22437/biodik.v10i2.28701>
- Moral-Santaella, C., & Sánchez-Lamolda, A. J. (2023). Teacher Leaders: A Challenge for Initial Teacher Education in Spain. *Studies in Educational Leadership*, Query date: 2024-07-24 10:57:25, 227–250.  
[https://doi.org/10.1007/978-3-031-25763-6\\_9](https://doi.org/10.1007/978-3-031-25763-6_9)
- Nassir, M., & Benoliel, P. (2023). Promoting school effectiveness: Examining the mediating role of teachers' organisational commitment and the moderating role of school cultural attributes. *Educational Management Administration & Leadership*, Query date: 2024-07-24 11:08:52, 2147483647–2147483647. <https://doi.org/10.1177/17411432231167715>
- Nebieridze, K. (2024). School Management Policy: The role of the leader in school management. *Academic Digest*, Query date: 2024-07-24 11:08:52, 85–105. <https://doi.org/10.55896/2298-0202/2022/85-105>
- Oprisan, A. (2022). Project-based learning for Honors College students. *PICUP Collection*, Query date: 2024-07-24 11:01:27. <https://doi.org/10.1119/picup.abstract.vcs2020.8114>
- Park, V., & Datnow, A. (2022). Principals' emotions in school improvement: The role of people, practices, policies, and patterns. *School Leadership & Management*, 42(3), 256–274.  
<https://doi.org/10.1080/13632434.2022.2071863>
- RAMAZANOĞLU, M., GÜREL, S., & ÇETİN, A. (2022). The development of an online learning readiness scale for high school students. *International Journal of Assessment Tools in Education*, 9(Query date: 2024-07-24 11:01:27), 126–145. <https://doi.org/10.21449/ijate.1125823>
- Sandoval, M. J. P. (2024). Navigating Educational Outcomes: Teachers' Perception on the Role of School Management to the Secondary School Achievements. *International Journal of Research Publications*, 151(1). <https://doi.org/10.47119/ijrp1001511620246835>
- Schneider, M. J. (2023). Teaching Racial Reckoning: The CRT Panic as a Challenge and an Answer. *Radical Teacher*, 127(Query date: 2024-07-24 10:57:25). <https://doi.org/10.5195/rt.2023.1139>
- Shamdas, G. (2023). Problem-Solving Skills for Middle School Students through the STEM-Based PBL Model. *Symposium on Biology Education (Symbion)*, 3(Query date: 2024-07-24 11:08:52), 75–75.  
<https://doi.org/10.26555/symbion.11697>
- Siregar, D. A., Haris, D., & Sitompul, H. (2023). Implementing the PBL Model to Improve Students' Mathematical Problem Solving Ability at Medan State Junior High School. *PARADIKMA: JURNAL PENDIDIKAN*

<https://doi.org/10.24114/paradikma.v16i1.42072>

- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of business research*, 104, 333-339.
- Swaminathan, R. (2022). Teacher Biographies and the Challenge of Change. *Proceedings of the 2022 AERA Annual Meeting*, Query date: 2024-07-24 10:57:25. <https://doi.org/10.3102/1883457>
- Wulandari, P. A., Dasna, I. W., & Nazriati. (2022). STEM-PBL and its effect on improving students' concept understanding in high school chemistry learning. *Improving Assessment and Evaluation Strategies on Online Learning*, Query date: 2024-07-24 11:08:52, 135–140. <https://doi.org/10.1201/9781003261346-21>
- Zulkifli, N. N. (2022). Review of: “Project-Based Learning for Graduate Students in Digital Humanities.” Query date: 2024-07-24 11:01:27. <https://doi.org/10.32388/7t567a>