

Research Article

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Needs Analysis for the Development of Project-Based Learning (PjBL) through an Android Application to Enhance Fiqh Learning Outcomes

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Abstract: This study is motivated by the low learning outcomes of Madrasah Aliyah students in Fiqh, as preliminary research shows that only 70% of tenth-grade students met the minimum competency criteria (KKM) of 75, indicating suboptimal performance. The purpose of this study is to analyze the need for the development of Project-Based Learning (PjBL) through an Android application to improve Fiqh learning outcomes at MAN 2 Bandung and MAS Baitus Shofaa Ciheulang Ciparay Bandung. The research design employs a naturalistic qualitative approach. The sampling technique used is purposive sampling, and data collection methods include interviews, observations, and documentation. Data analysis is conducted using techniques of data reduction, data presentation, and verification. Research results revealed three key findings: 1) There is a need for more engaging, tech-based learning in Fiqh education, and the "*MaBar Fiqih*" app could boost student interaction and critical thinking. 2) The Fiqh curriculum at both madrasas, following *Kurikulum Merdeka*, integrates key topics like zakat and hajj into an Android-based PjBL to enhance practical learning. 3) MAN 2 students are more tech-savvy, while MAS Baitus Shofa students are eager to learn despite lower digital literacy, making PjBL adaptable to both groups' needs for better engagement and outcomes.

Keywords: Project Based Learning (PJBL), Android Application, Learning Outcomes Fiqih

Introduction

The Smart Society 5.0 era represents a human-centered, technology-driven societal concept. In this era, society is expected to address various social challenges and issues by leveraging innovations from the Fourth Industrial Revolution to enhance the quality of human life (Santoso, 2022). Education plays a crucial role in preparing students for this era, with a focus on developing four core skills known as the 4Cs: creativity, critical thinking, communication, and collaboration (Nastiti & Ni'mal'Abdu, 2020).

Every individual must possess basic digital technology skills, as Smart Society 5.0 integrates technology deeply into human life. The internet is no longer solely used for information sharing but is essential for everyday life and education. In the educational sector, three key technologies can be harnessed: the Internet of Things (IoT), Virtual Augmented Reality (VAR),

and Artificial Intelligence (AI), all of which can help identify and meet learning needs (Renata & Salsabila, 2022).

From 2019 to 2021, Indonesia experienced the COVID-19 pandemic, which necessitated a shift to online learning. To facilitate online education, technological tools such as smartphones, laptops, projectors, and internet connectivity became essential support systems. This situation highlighted the critical role of education in shaping an intelligent, character-driven, and humane society (Ruswandi et al., 2023). Effective teaching and learning processes require careful planning, including the preparation of teaching modules, strategies, methods, and media that align with both the subject matter and student characteristics. In the current digital age, challenges in education are becoming increasingly complex. Teachers are now expected not only to master the content but

also to integrate technology into the learning process to make it more effective and relevant for students.

Fiqh, a subject often considered less engaging by students, is an example of this challenge. The conventional, one-directional teaching method often fails to actively involve students in the learning process, resulting in suboptimal learning outcomes, particularly in institutions like Madrasah Aliyah.

Learning outcomes (CP) refer to the competencies that students must achieve at every phase of their educational development, starting from foundational stages in early childhood education through to higher education (Suparyanto dan Rosad (2015, 2020). Learning outcomes encompass a set of competencies and content areas, organized comprehensively in the form of a narrative. Learning itself is a systematic process that includes several components: teachers, curriculum, students, the learning process, output, facilities, and strategies. These components are not independent but are interconnected, complementary, and continuous. Therefore, a well-designed learning plan and management, combined with motivation and a positive attitude from those who design the learning process, are necessary to achieve the desired learning outcomes. Effective planning is essential for achieving successful results.

Based on initial observations and the results of the learning evaluation, many students were found to struggle with understanding abstract concepts in Fiqh. The lack of student engagement and the limited use of innovative teaching media have been identified as key factors contributing to the low interest and motivation among students. This issue is exacerbated by the minimal application of technology that can accommodate diverse learning styles and enrich students' learning experiences.

The learning process plays a critical role in achieving educational objectives, particularly by utilizing learner-centered models that foster

active student participation in a more democratic, fair, humane, empowering, enjoyable, stimulating, and inspiring learning environment. Such an approach enhances student motivation, creativity, innovation, work ethic, and life skills (Badar & Bakri, 2022). In this learning process, students are required to actively engage in learning activities, while the teacher acts merely as a facilitator, providing instructions to students. Learning involves interaction between students, educators, and learning resources within a conducive learning environment. The Indonesian National Education Law No. 20 of 2003 emphasizes that learning is an interactive process between students, educators, and learning resources within a learning environment (Indonesia, 2003)

One approach to improving student learning outcomes is by integrating technology in education during this digital era (Farhana, 2023). Innovative teaching methods that leverage technological advancements can transform the learning process. In particular, using Android devices in education can facilitate learning. Android devices are widely popular due to their portability and wireless capabilities, allowing the educational process to incorporate mobile learning. Mobile learning, a form of e-learning, provides the advantage of efficient, flexible access to information and materials, enabling students to learn at any time and from any location. Applications are the practical implementation of concepts that address specific issues, and in this context, they refer to software designed to assist with specific tasks. Android, as an operating system based on Linux, offers an open platform for developers to create applications for various mobile devices (Putra et al., 2017).

The interaction between students, educators, learning resources, and the learning environment necessitates the use of appropriate and relevant teaching models. One such model is Project-Based Learning (PjBL), a student-

centered method (Firdaus, 2022). PjBL requires students to engage in projects or create products that are exhibited to the community. For instance, students could develop projects or products using Android applications. The real-world problem-solving aspect of PjBL is closely related to Fiqh, which deals with daily life and religious practices. PjBL is a long-term learning activity that involves students in designing, creating, and presenting products to solve real-world problems (Rahman & Ramli, 2024). It is a teaching model that uses projects or activities as a means to achieve competency in attitudes, knowledge, and skills (Prilestari, 2019).

Teachers play a crucial role as learning agents, responsible for organizing all learning activities. They must carefully consider teaching strategies, classroom management, the use of learning resources, and assessment planning, all of which should be tailored to the characteristics of the students. One innovative strategy to improve learning outcomes is implementing Project-Based Learning (PjBL) through Android applications. To facilitate the learning process and classroom management, teachers are required to possess adequate knowledge, skills, and competencies in both instructional management and technology (Pitriya, 2024).

Currently, many teaching strategies employed by educators are often monotonous and conventional. This is evident from the lack of student engagement during lessons. When students are not fully attentive, it negatively impacts their test scores and prevents them from achieving optimal results. Test scores that do not meet the minimum competency criteria (KKM) indicate that learning objectives are not being met.

Creative teachers continuously innovate and seek ways to ensure that teaching and learning activities achieve the desired outcomes. One aspect of pedagogical competence is understanding students' characteristics, including individual differences, talents, interests, physical and psychological readiness, emotional state,

intellectual abilities, and the learning environment and facilities available at the school. The success of Fiqh education depends on the teacher's ability to manage the learning process while considering all of these factors, particularly the characteristics of the students. One innovative approach to improving learning outcomes in Fiqh is through the development of Project-Based Learning (PjBL) using Android applications, which can enhance students' understanding of Fiqh by employing application-based learning media (Firdaus et al., 2023).

Research findings show that low learning outcomes are primarily due to the dominance of conventional teaching methods. In these teacher-centered environments, educators often fail to involve students to the fullest extent and focus on traditional instructional methods. The teaching process tends to prioritize cognitive enrichment, while neglecting the development of affective and psychomotor skills. Instruction is largely delivered through lectures, or students are merely assigned to read books in the library for additional insights. This approach stifles student creativity and leads to less optimal learning experiences.

Fiqh, as a field of Islamic legal studies, requires teaching methods that foster creative thinking. As a key component of Islamic Religious Education (PAI), Fiqh instruction aims to shape students' noble character, ensuring they possess the skills necessary for proper worship and social interactions (Kushidayati et al., 2016). This goal aligns with the broader purpose of education, which is the conscious guidance provided by educators to support the physical and spiritual development of students, leading to the formation of an ideal character (Syafe'i, 2015).

Fiqh education should maximize the available facilities and infrastructure, as well as the students' innate talents and abilities (Firdaus, 2024). Reports from teachers indicate that the time allocated for lessons is often insufficient, given the heavy content load. Moreover, the most challenging aspect is ensuring that students

internalize the knowledge they acquire, so it shapes their character and personality through its application in daily life.

These challenges have prompted ongoing improvements in the learning process to achieve the educational objectives of Fiqh. Learning is a system composed of several components: goals, methods, materials, and evaluation. These components are interdependent and interconnected, each playing a specific role in achieving the desired learning outcomes. Research findings suggest that applying PjBL in education has a positive impact, demonstrating significant results and receiving favorable responses from students. The development of learning through PjBL has shown to effectively reach the ideal goal of improving student learning outcomes (Firdaus et al., 2023).

Project-Based Learning (PjBL) is widely recognized as an effective approach for increasing student engagement and enhancing learning outcomes. PjBL encourages active learning through exploration, research, and problem-solving related to real-world issues that are relevant to students' daily lives. However, the implementation of PjBL in Fiqh classes is still uncommon, particularly with the use of digital technology. The integration of digital devices, especially Android-based applications, has become an integral part of students' daily lives. These applications hold significant potential as interactive learning tools that can support the PjBL model. The use of Android applications in PjBL is expected to increase student engagement, deepen their understanding of Fiqh material, and ultimately improve their learning outcomes.

Based on preliminary empirical observations at MAN 2 Bandung, which has already implemented e-learning and android-based evaluations, the institution has achieved an "Excellent" accreditation. The second locus of research, MAS Baitus Shofa, a private Madrasah Aliyah, has also integrated digital learning in its teaching and evaluation processes. Given the

potential of these two institutions, the researcher aims to develop Project-Based Learning (PjBL) through Android applications to improve learning outcomes in Fiqh. Despite the positive implementation of learning processes at these institutions, the affective and psychomotor learning outcomes in Fiqh have not yet met the Minimum Competency Criteria (KKM). This is evident from daily test scores that fail to meet the KKM and from the results of worship monitoring, which are self-reported by students. Based on these observations, the role of teachers is crucial in motivating students to improve their learning outcomes.

Several empirical data points related to Fiqh learning outcomes at MAN 2 Bandung were identified as follows: First, based on initial observations conducted on October 4, 2022, students tend to engage in convergent thinking, focusing on memorization and repetition of examples, which limits their ability to generate multiple solutions. They rely on routine and procedural methods to solve Fiqh problems, following the steps demonstrated by the teacher. This suggests that students struggle to develop ideas or solve Fiqh-related problems independently, indicating that their creativity and understanding remain at a cognitive level only, resulting in low learning outcomes.

Second, observations made on October 10, 2022, revealed a lack of daily worship awareness among students. Additionally, students displayed limited skills in detecting problems, identifying, analyzing, and exploring ideas in ways that could make them more understandable and appealing to others. Moreover, students lacked the curiosity needed to delve deeper into Fiqh issues related to daily worship.

Third, during interviews conducted with Fiqh students and teachers on October 19, 2022, it was discovered that the teaching methods used by teachers were still conventional, relying heavily on lectures. This teacher-centered approach limited students' understanding of the

material as they were not actively engaged in the learning process or given the opportunity to think critically. Furthermore, the media used in teaching were limited to PowerPoint presentations, with no innovative teaching aids to enhance students' comprehension.

Fourth, data collected from the Fiqh subject report card recapitulation at MAN 2 Bandung and MAS Baitus Shofaa Ciheulang Bandung on December 18, 2022, revealed that the competency test results showed that only 70% of tenth-grade students achieved the KKM of 75. Thus, overall learning outcomes were still lacking.

These phenomena are believed to be factors contributing to the low learning outcomes among students. This issue requires solutions, one of which is the development of PjBL through Android applications to enhance Fiqh learning outcomes at MAN 2 Bandung and MAS Baitus Shofaa Ciheulang Bandung. Such an approach can improve students' understanding of Fiqh and shift the learning process to a student-centered model, providing contextual learning experiences, fostering critical thinking, and promoting independent learning while enhancing students' collaboration skills.

As highlighted in the background above, Fiqh education has not sufficiently provided students with opportunities to develop affective and psychomotor skills, largely due to teachers' limited methodological understanding of the Fiqh learning process. Consequently, learning outcomes have not met the KKM. It is essential to develop a learning model that can improve Fiqh learning outcomes at MAN 2 Bandung and MAS Baitus Shofaa Ciheulang Ciparay Bandung. Therefore, this research focuses on "The Development of Project-Based Learning Through Android Applications to Improve Fiqh Learning Outcomes (A Study at MAN 2 Bandung and MAS Baitus Shofaa Ciheulang Ciparay Bandung)."

The objective of this study is to analyze the need for developing PjBL through Android

applications to improve Fiqh learning outcomes at MAN 2 Bandung and MAS Baitus Shofaa Ciheulang Ciparay Bandung. This research serves as an initial stage in the design development of PjBL through Android applications to enhance Fiqh learning outcomes at these institutions. By understanding user needs and preferences, the application developed is expected to serve as an effective tool for promoting religious moderation in a more interactive and accessible manner.

Method

This research design adopts a naturalistic qualitative approach. Qualitative research is a procedure that generates descriptive data in the form of written or spoken words from people and observed behaviors. It takes place in a scientific setting where the researcher collects data from research participants who are the subjects of the study (Cresswell, 2019). The rationale behind using this approach is to analyze processes, realities, and social relationships, particularly in relation to primary and secondary needs. According to Miller, the orientation of qualitative researchers is to describe or analyze the processes by which social realities are formed and the social relationships that connect individuals.

The sampling technique used in this research is purposive sampling. Purposive sampling is employed to access individuals who are highly knowledgeable, meaning those who have deep insights into the research topic based on their roles, expertise, or experiences. Therefore, this study involves only key informants (McMillan & Schumacher, 2014), specifically the head of the madrasa and teachers.

The research procedure begins with problem analysis, a literature review, problem identification, data collection from the research subjects, data processing, data analysis, and drawing conclusions. Data collection techniques include interviews, observations, and documentation. Data analysis is conducted using

the techniques of data reduction, data presentation, and verification.

Results And Discussion

Fiqh education is a crucial subject in Islamic studies, aimed at providing a deep understanding of Islamic laws governing various aspects of daily life. However, challenges in teaching Fiqh often arise from traditional teaching methods, which tend to be monotonous and less engaging for students. To improve learning outcomes in Fiqh, the development of innovative teaching methods is essential, one of which is Project-Based Learning (PjBL). PjBL offers students the opportunity to actively engage in solving real-world problems and develop critical thinking skills. By leveraging technological advancements, particularly Android-based applications, PjBL can be integrated into Fiqh education to create a more interactive and effective learning experience. Through the analysis of the needs for developing Android-based PjBL, it is hoped that a more relevant and engaging learning solution can be formulated, significantly enhancing Fiqh learning outcomes.

To develop an effective Project-Based Learning (PjBL) model through Android applications aimed at improving Fiqh learning outcomes, a thorough analysis of the needs, curriculum, and student characteristics at two institutions—MAN 2 Bandung and MAS Baitus Shofa—is required. This analysis provides insights into the current conditions, challenges, and potential that can be optimized. The development of PjBL through Android applications for improving Fiqh learning outcomes describes the results of preliminary studies and needs analysis, offering a foundation for enhancing learning effectiveness and student engagement.

Development Needs Analysis

Needs analysis is a fundamental step in conducting research and development to identify

the requirements for the development of Project-Based Learning (PjBL) through Android applications. The needs analysis involved observations and interviews, which revealed that the teaching of Fiqh has not yet emphasized the Project-Based Learning (PjBL) model.

Interviews conducted with Fiqh teachers of grade 10 at MAN 2 Bandung on September 14, 2023, and at MAS Baitus Shofa on September 18, 2023, provided insights into the needs for the development of this approach.

Based on the interviews with Fiqh teachers, several issues were identified that have led to students' lack of enthusiasm for the Fiqh subject, resulting in suboptimal learning outcomes. To maximize students' learning achievements, it is crucial for teachers to introduce new innovations in teaching methods, such as implementing PjBL through the "MaBar Fiqih" application, which has the potential to boost students' enthusiasm and improve their learning outcomes.

The needs analysis at MAN 2 Bandung and MAS Baitus Shofa highlights several key points that should be considered in developing the PjBL model through Android applications:

1. The Need for Interactive and Contextual Learning: Both institutions have expressed a strong need for a more interactive and contextually relevant approach to teaching Fiqh. Teachers and students at MAN 2 Bandung and MAS Baitus Shofa desire a learning method that actively engages students and links Fiqh materials to real-life situations they experience.
2. Utilization of Technology in Learning: Students at MAN 2 Bandung and MAS Baitus Shofa have shown great interest in using digital technology for learning. However, the current use of technology is still limited. There is thus a need to integrate Android applications that support PjBL, enabling students to learn in a more flexible, independent, and interactive manner.

3. Enhancement of Critical Thinking and Collaboration Skills: Both madrasas have a shared need for the development of critical thinking, collaboration, and creativity skills. The current Fiqh lessons are perceived as lacking in opportunities for students to engage in deep thinking, build arguments, or collaborate in teams to solve problems.

These findings underline the importance of addressing the identified needs through the integration of innovative teaching models, such as PjBL, facilitated by Android applications. This approach aims to create a more engaging, technology-enhanced, and skill-developing learning experience for students.

Curriculum Analysis

The Fiqh curriculum at MAN 2 Bandung and MAS Baitus Shofa is based on the *Kurikulum Merdeka* currently implemented in Madrasah Aliyah. This curriculum analysis highlights several key aspects:

1. Similar Core Competencies: In both madrasas, the Fiqh curriculum emphasizes the mastery of the same core competencies, which include a deep understanding of Islamic laws, the ability to analyze Fiqh-related issues, and the application of Islamic values in daily life. These competencies align well with the Project-Based Learning (PjBL) approach, which allows students to learn through real-world experiences and engaging projects.
2. Flexible and Adaptive Learning Approaches: The *Kurikulum Merdeka* at MAN 2 Bandung and MAS Baitus Shofa provides teachers with the flexibility to adapt teaching methods according to students' needs and contexts. This flexibility creates significant opportunities for implementing Android-based PjBL, which can be tailored to local conditions, student needs, and the desired learning objectives.
3. Integration of Islamic Values with 21st-Century Skills: The curriculum in both

madrasas focuses on developing students' character and 21st-century skills, such as collaboration, communication, creativity, and critical thinking. This aligns with the goals of PjBL, which emphasizes project-based learning, enabling students to engage in more practical and application-based learning.

4. Curriculum Structure at MAN 2 Bandung and MAS Baitus Shofa: The *Kurikulum Merdeka* in Madrasah Aliyah is generally structured into two components: intramural learning and project-based learning aimed at strengthening the character of Pancasila students. In practice, intramural and project-based learning can be implemented as an integrated approach, and even across multiple subjects. The curriculum also introduces the concept of "phases," which refer to stages within a process that involve continuous progression. At the Madrasah Aliyah level, there are two phases in the *Kurikulum Merdeka*: Phase E and Phase F.

This analysis demonstrates that the *Kurikulum Merdeka* provides a strong foundation for integrating PjBL with Android applications, creating a more interactive, contextually relevant, and skill-based Fiqh learning experience for students.

The sample in this study consists of tenth-grade students from MAN 2 Bandung and MAS Baitus Shofaa Ciheulang Bandung. According to the **Kurikulum Merdeka**, tenth grade is categorized under Phase E, where the focus of learning outcomes is on shaping broader religious attitudes and behaviors. This aims to develop students with a moderate, flexible, and inclusive understanding of religion, preparing them to face global challenges. The Learning Objectives in Phase E cover topics such as the concept and historical development of Fiqh, funeral rites and their associated problems, zakat, infaq, sadaqah and their management in Indonesia, waqf, gifts, and their management under Indonesian law, qurban, aqiqah, and the analysis of religious texts

along with their legal wisdom, and finally, hajj and umrah, with an analysis of the religious texts and their legal reasoning. The application to be developed will accommodate topics such as funeral rites, zakat, qurban, aqiqah, hajj, and umrah. These topics align with the *Kurikulum Merdeka* for Phase E.

Student Characteristics Analysis

Interviews conducted with teachers and students at MAN 2 Bandung on September 14, 2023, and at MAS Baitus Shofa Ciheulang Bandung on September 18, 2023, revealed the heterogeneous background of the students, leading to varied characteristics in learning styles, abilities, interests, and talents. These differences can create complex yet complementary groupings, facilitating the implementation of project-based learning.

The analysis of student characteristics at both madrasas highlights several similarities and differences that could influence the implementation of the PjBL model:

1. Students at MAN 2 Bandung: The students at MAN 2 Bandung come from diverse socioeconomic backgrounds, reflecting the dynamics and cultural diversity of a large city. These students are generally accustomed to using technology in their daily lives, although their levels of digital literacy vary. They demonstrate high learning motivation when the teaching method is engaging and relevant, such as through project-based learning, which allows for active participation.
2. Students at MAS Baitus Shofa: The students at MAS Baitus Shofa typically come from rural or suburban areas, with a more homogeneous background. Their level of digital literacy tends to be lower compared to students at MAN 2 Bandung, but they exhibit strong enthusiasm for learning new technologies. The students at MAS Baitus Shofa are generally characterized by good discipline and a high willingness to learn,

especially when the learning material is connected to their everyday lives.

These insights into student characteristics suggest that the implementation of PjBL in both institutions can be tailored to meet their specific needs and contexts, ensuring that the teaching approach resonates with students' learning styles and backgrounds.

In this study, the findings indicating the need for the development of Project-Based Learning (PjBL) through Android applications for Fiqh education are supported by several relevant educational theories. One such theory is constructivism, developed by Jean Piaget (Piaget & Cook, 1952). According to this theory, learning occurs when individuals actively construct their understanding through interactions with their environment. In the context of Fiqh learning, PjBL enables students to engage in relevant and contextual activities, allowing them to connect acquired knowledge with real-life situations. This process aligns with the core principle of constructivism, which emphasizes learning through direct experience, or "learning by doing" (Deng et al., 2024).

Additionally, Albert Bandura's social learning theory supports the application of Android-based PjBL. Bandura asserts that learning occurs through observation, imitation, and social modeling. By implementing PjBL, students can collaborate on projects, learn from their peers, and engage in discussions that foster more active learning processes. This project-based learning model allows students to develop social skills such as cooperation, communication, and critical thinking, which are central to social learning theory (Bandura, 1986).

Howard Gardner's theory of multiple intelligences also provides a strong foundation for applying PjBL in Fiqh education. Gardner suggests that individuals possess various intelligences, including logical, linguistic, interpersonal, and intrapersonal intelligences. In Android-based PjBL, students have the

opportunity to develop these multiple intelligences. For example, they can use logical intelligence to analyze Fiqh issues, linguistic intelligence to present their arguments, and interpersonal intelligence when working in teams. This approach not only offers a deeper learning experience but also supports the development of diverse intelligences (Gardner, 2024).

To strengthen these findings, several previous studies in Indonesia also support the effectiveness of PjBL in the context of Fiqh education. For instance, research conducted by (Sari, 2024) found that implementing PjBL in Fiqh learning at Madrasah Aliyah significantly increased student engagement. The study showed that PjBL enabled students to apply Fiqh material more actively in their daily lives, thereby enhancing their understanding of Islamic law. Similarly, research by (Sholeh et al., 2024) revealed that PjBL in Madrasah Aliyah led to a significant improvement in students' learning outcomes. Through projects such as the analysis of zakat and qurban cases, students were able to better understand Fiqh material and apply it in real-life contexts.

Another study by (Baridah, 2024) highlighted the importance of technology use in Fiqh education. It found that students who used Android-based applications for learning Fiqh demonstrated higher motivation and better comprehension of the material. This finding supports the idea that technology can be an effective tool in modern education, particularly within the context of PjBL. Moreover, (Shofiyah & Suwandi, 2023) found that interactive learning methods like PjBL are highly effective in improving Fiqh learning outcomes. Students learning through this method demonstrated a

Badar, N., & Bakri, A. (2022). Strategi pembelajaran dengan model pendekatan pada peserta didik sekolah menengah pertama agar tercapainya tujuan pendidikan. *JBES: Journal of Biology Education and Science*, 2(2), 1–15.

deeper understanding of Fiqh concepts and improved critical thinking skills.

Finally, research by (Taqwim, 2022) showed that integrating PjBL with digital platforms, such as Android applications, has the potential to enhance student engagement and learning outcomes. In his study, students involved in app-based projects showed better abilities to understand complex Islamic laws through more real and relevant contexts. These studies reinforce the conclusion that the use of Android-based PjBL in Fiqh education can increase student enthusiasm and improve learning outcomes.

Conclusion

Based on the analysis of needs, curriculum, and student characteristics at both madrasas, the implementation of the Project-Based Learning (PjBL) model through an Android application is highly relevant and necessary. At MAN 2 Bandung, students are more likely to adapt easily to the use of technology due to their diverse backgrounds and higher levels of digital literacy. At MAS Baitus Shofa, although there are challenges related to digital literacy, students exhibit strong enthusiasm for learning and can benefit significantly from project-based learning that is contextual and relevant to their daily lives. The integration of PjBL through an Android application can address these challenges and support the enhancement of critical thinking, collaboration, and active student engagement in Fiqh learning. This application is expected to make the learning process more engaging, interactive, and aligned with the needs of students at both madrasas.

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