INTEGRATING PROBLEM-BASED LEARNING WITH ISLAMIC PRACTICE: A SYSTEMATIC REVIEW OF EDUCATIONAL OUTCOMES AND RELIGIOUS ENGAGEMENT

Dena Sri Anugrah
Indonesian University of Education, Bandung, Indonesia
229 Dr. Setiabudi Street, Isola, Sukasari Subdistrict, Bandung City, Indonesia
Email: denasrianugrah@upi.edu

Udin Supriadi
Indonesian University of Education, Bandung, Indonesia
229 Dr. Setiabudi Street, Isola, Sukasari Subdistrict, Bandung City, Indonesia
Email: udinsupriadi@upi.edu

Saepul Anwar
Indonesian University of Education, Bandung, Indonesia
229 Dr. Setiabudi Street, Isola, Sukasari Subdistrict, Bandung City, Indonesia
Email: saefull@upi.edu

Nur Muhammad Lathif
Umraniye Buyuk Kurs Istanbul, Turkey
Namık Kemal, 34764 Ümraniye/İstanbul, Turki
Email: nurlathif99@gmail.com

ABSTRACT

Islamic education emphasizes holistic development by integrating cognitive, affective, and psychomotor domains to cultivate individuals who are both intellectually capable and morally upright. This study investigates the integration of Problem-Based Learning (PBL) with Islamic practices in formal education through a systematic review of 42 articles from the Scopus database (2014–2024), following the PRISMA framework. The study addresses three primary questions: (1) the forms of PBL integration in Islamic education, (2) its impact on educational outcomes, and (3) its effect on students' religious engagement. The review identifies four main integration models: curriculum design, interdisciplinary learning, character education, and digital contextual learning. These approaches significantly enhance students' religious understanding, practical skills, and application of Islamic values. Findings indicate that PBL contributes to educational quality by connecting theoretical knowledge with real-life practice, fostering character development, and strengthening religious engagement. PBL improves students' comprehension, higher-order thinking skills (HOTS), and positive attitudes toward learning, encouraging active participation and social involvement. Its integration into Islamic education not only supports academic achievement but also promotes spiritual and moral development, demonstrating its value as an effective approach in modern Islamic pedagogy. This study concludes that PBL equips students with the competencies required to face both intellectual and ethical challenges.

Keywords: *Educational Outcomes, Formal Education, Integration, Islamic Education, Problem-Based Learning, Religious Engagement*

INTRODUCTION

In Islamic education, religious practice holds a central role not only as a spiritual foundation but also as a key component in the development of character and ethics. The purpose of Islamic education extends beyond imparting basic religious knowledge; it

encompasses the integration of Islamic values into all aspects of academic and everyday life (Sholeh et al., 2023). The goal is to nurture individuals who are intellectually capable and morally grounded, embodying the qualities of a person of faith and knowledge. Deep and contextual understanding of religious texts and principles is essential for translating these teachings into meaningful daily actions (Sapdi & Ali, 2022).

Islamic education promotes a holistic and integrated learning approach, which includes cognitive, affective, and psychomotor dimensions. This approach demonstrates that school education should not only focus on worship practices but also emphasize values such as honesty, empathy, and justice as applied in both academic and social contexts (Pamessangi et al., 2024; Parhan et al., 2024).

Problem-Based Learning (PBL) is an instructional approach that positions students at the center of the learning process, connecting them to real-world situations through a series of problem-solving activities. This method facilitates the application of theoretical knowledge to practical situations, thereby supporting the transition from classroom learning to real-life contexts (Rahmayani & Asrizal, 2024).

The relevance of PBL in contemporary education is significant, especially considering the increasing demand for individuals who possess both theoretical knowledge and practical skills to address complex challenges (Hidayah & Khunaivi, 2022) .Critical thinking and collaboration have become essential skills in a society oriented toward solutions and innovation (Wibowo & Mustofa, 2024) . In the context of Islamic education, PBL presents a valuable opportunity to integrate Islamic values into the resolution of practical problems (Destriani et al., 2024). This makes PBL a promising approach for achieving the holistic vision of Islamic education, which aims not only to develop intellectual capacity but also to enrich character and spirituality (Gunawan et al., 2024; Mailin et al., 2023).

The integration of PBL with Islamic practices is valuable because PBL effectively incorporates Islamic values into a learning process that emphasizes practical problem-solving. It serves as a bridge between theory and practice, which is an essential aspect of Islamic education. By doing so, PBL not only imparts knowledge but also guides students in applying it meaningfully in daily religious practices (Darmawan et al., 2024), thereby deepening their understanding of how Islamic teachings are applied in broader life contexts (Suwendi et al., 2024).

Based on this rationale, the present study conducts a systematic literature review to map the forms of PBL integration in implementing Islamic values and to analyze its impact on students' educational outcomes and religious engagement. The research questions addressed in this systematic review are presented in Table 1.

Table 1. Research Questions

Code	Research Question	Rationale
RQ1	How is PBL integrated with Islamic practices in the context of formal education?	Understanding the forms of PBL integration with Islamic practices helps identify how this learning method can be effectively adapted in Islamic educational settings.
RQ2	What is the impact of PBL integration with Islamic practices on educational outcomes, including knowledge, practical skills, and student attitudes?	This question aims to identify and analyze the effects of PBL integration on students' educational outcomes, including knowledge acquisition, skill development, and attitudinal changes.
RQ3	What is the impact of PBL integration with Islamic practices on students' religious engagement?	Exploring this impact provides valuable insights into how this learning approach influences students' religious involvement within the context of Islamic education.

Source: Processed by Researcher, 2025

Literature Review

Studies on the Problem-Based Learning (PBL) model have been extensively conducted in both general and religious education contexts. Lasut and Seleky (2017) found that PBL tends to engage students more deeply and meaningfully in learning about religious values. Similarly, Nasution (2020) demonstrated that PBL facilitates the application of concepts in everyday life, thereby strengthening students' religious practices outside the academic environment.

Further research by Rambe and Nurwahidah (2023) showed that PBL promotes a deeper understanding of religious teachings and encourages students to reflect on the practical implications of these values in their daily lives. Additionally, studies by Muslim et al. (2023) and Azizah (2024) indicated that PBL enhances students' involvement in religious practices through reflection and discussion.

However, most existing studies still focus primarily on the cognitive outcomes of PBL, with limited attention given to its relationship with students' religious engagement in daily Islamic practices. For instance, Aini and Yusuf (2021) examined the impact of PBL on affective learning outcomes, but did not address how this method supports the development of concrete religious practices.

This study seeks to fill that gap by systematically reviewing the integration of PBL within Islamic education, particularly its influence on educational outcomes (knowledge, skills, and attitudes), and students' religious involvement. The analysis is expected to contribute to the development of learning strategies that are both academically effective and spiritually meaningful.

Conceptual Framework

The conceptual framework of this study is grounded in several key learning theories that support the integration of PBL in Islamic education. First, Social Constructivism Theory by Lev Vygotsky emphasizes that learning occurs through social interaction and the resolution of contextual problems. The PBL model aligns with this approach by engaging students in solving real-world problems relevant to their lives. Vygotsky's concept of the Zone of Proximal Development (ZPD) highlights the importance of guided interaction between learners and more knowledgeable others, such as teachers or peers, to support cognitive development (Ilham et al., 2023).

Second, Social Learning Theory by Albert Bandura (1986) underscores the role of observation, imitation, and modeling in the learning process. In the PBL context, students learn from group discussions, shared solutions, and peer observation, facilitating social learning through collaborative problem-solving (Yanuardianto, 2019).

Third, Cognitive Learning Theory developed by Jerome Bruner (1960) emphasizes discovery learning, where students actively engage in investigating and analyzing real-world situations to find solutions. This principle aligns well with the PBL approach, which encourages students to explore and construct knowledge through active engagement (Buto, 2010).

Central to this study is Experiential Learning Theory by David Kolb (1984), which posits that effective learning occurs through a four-stage cycle: 1) Concrete Experience: students encounter real-life problems related to religious practice; 2) Reflective Observation: students reflect on their experiences; 3) Abstract Conceptualization: students connect these experiences with religious concepts taught in Islamic Education (PAI); and 4) Active Experimentation: students apply the learned concepts in new contexts (Hakima & Hidayati, 2020).

These theories support the integration of PBL in Islamic religious studies by enabling students to develop a

profound understanding of religious principles while fostering character and spiritual development through experiential learning. This study adopts experiential learning, authentic learning, and active learning as theoretical foundations to explain how PBL can enhance both students' comprehension and religious engagement.

RESEARCH METHOD

Study Design

This study employs a systematic review approach, guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009). The primary aim of this review is to evaluate and synthesize research findings related to the integration of Problem-Based Learning (PBL) with Islamic practices within the educational context. This method ensures a comprehensive and transparent process in identifying relevant studies, assessing their quality, and extracting meaningful insights about the educational and spiritual impact of PBL in Islamic education.

Criteria Selection

The studies included in this systematic review are empirical works that report quantitative, qualitative, or mixed-method data on educational outcomes and religious engagement resulting from the integration of Problem-Based Learning (PBL) with Islamic practices. Only articles published in English between 2014 and 2024 in peer-reviewed journals were considered eligible for inclusion. A summary of article distribution by journal quartile is presented in Table 2.

Table 2. Distribution of Articles by Journal Quartile

Index	Journal Name	Number of Articles	Total Articles
Q1	Journal of Computers and Education	1	16 (38%)
	American Educational Research Association	1	

Index	Journal Name	Number of Articles	Total Articles
	Policy Insights from the Behavioral and Brain Sciences	1	
	European Journal of Engineering Education	1	
	Religion & Education	1	
	Universal Journal of Educational Research	1	
	Futura Islamic Scientific Journal	1	
	Journal of Physics: Conference Series	4	
	Journal for Multicultural Education	1	
	Jordan Journal of Modern Languages and Literatures	1	
	International Journal of Instruction	1	
	BMC Medical Education	1	
	Journal of Advanced Research in Dynamical and Control Systems	1	
Q2	International Journal on Interactive Design and Manufacturing	1	8 (19%)
	International Journal of Instruction	1	
	Journal of Language & Education	1	
	Infinity Journal	1	
	Journal of Education and e-Learning Research	1	
	IOP Conference Series: Earth and Environmental Science	1	
	Springer Plus	1	
	Advances in Medical	1	

Index	Journal Name	Number of Articles	Total Articles
	Education and Practice		
	Indonesian Journal of Science Education	3	
	Journal of Physics: Conference Series	1	
	Journal of Education and Learning	1	
	International Journal of Learning, Teaching and Educational Research	2	
	International Journal of Information and Educational Technology	2	
Q3	Humanities and Social Sciences Letters	1	14 (33%)
	Global Journal Al- Thaqafah	1	
	International Journal of Innovation, Creativity and Change	1	
	Journal of Communication : Malaysian Journal of Communication	1	
	International Journal of Evaluation and Research in Education (IJERE)	1	
	Strides in Development of Medical Education Journal	1	
Q4	Library Philosophy and Practice	1	4 (10%)
	Journal of Islamic Education	1	
	Journal for the Education of Gifted Young Scientists	1	
Total			42 (100%)

Source: Data Analysis, 2025

Search Strategy

The literature search was conducted using databases such as Scopus, supported by Publish or Perish software. The keywords employed in the search included: *"Problem-Based Learning"*, *"Islamic Education"*, *"Educational Outcomes"*, *"Religious Engagement"*, and combinations thereof. The search covered literature published until March 2024 to ensure the inclusion of the most current research. The keyword combinations are presented in Table 3.

Table 3. Article Search Using Publish or Perish Software

Keyword Combination	Filter (Scopus)	Number of Articles
" problem based learning", "Islamic education"		9
" problem based learning", "educational outcomes"		58
problem based learning OR PBL AND educat * outcom * OR learn* AND knowledge AND attitude * AND skill*		200
problem based learning OR PBL AND Islam* practice *		48
problem based learning OR PBL AND educat * outcom * OR learn* OR knowledge OR attitude * OR skill*	Year: 2014-2024, Journal, Article, English	200
problem based learning in Islam* practice*		1
problem-based learning OR PBL AND religious* engage*		14
problem based learning OR PBL AND religion* engage* OR involve *		59
problem based learning OR PBL AND islam * OR muslim educat * OR study * OR practi *		186
Amount Article		775

Source: Data Analysis, 2025

The use of an asterisk (*) enables the retrieval of word variants (e.g., *educat*, *practi*, *skill*) to capture diverse terminology across studies. This inclusive approach ensured a comprehensive and representative selection of articles for the review.

Data Selection and Extraction

Two reviewers independently screened the titles and abstracts retrieved from the initial search. Studies meeting the inclusion criteria were subjected to full-text review. Discrepancies between reviewers were resolved through discussion or consultation with a third reviewer. Data were extracted from eligible studies, including information on the study design, population, details of the PBL intervention, educational outcome measures, and aspects of religious engagement.

Decisions regarding the retrieval of articles were based on abstract reviews, while inclusion decisions were based on full-text evaluations. Both reviewers conducted these processes independently and then met to reconcile judgments and document their level of agreement. The criteria for inclusion and exclusion are shown in Table 4.
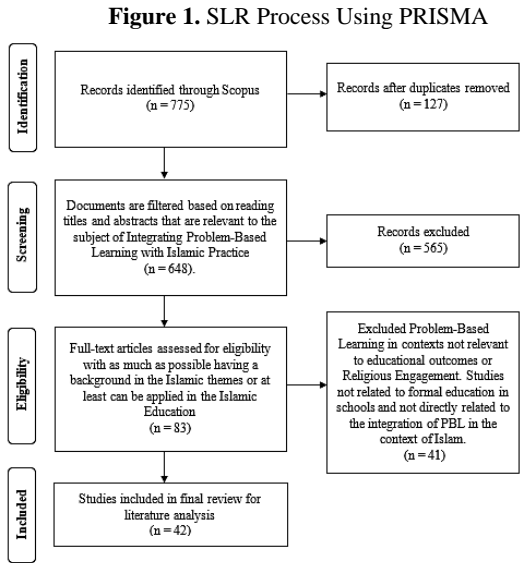
Table 4. Inclusion and Exclusion Criteria

Inclusion Criteria	Published between 2014 and 2024
	Written in English
	Published in peer-reviewed journals indexed in Scopus Q1–Q4
	Empirical study discussing the integration of PBL with Islamic practices in formal school education
	Studies measuring educational outcomes such as knowledge, skills, and attitudes
	Studies evaluating students' religious engagement as an outcome of PBL integration
	Use of quantitative, qualitative, mixed methods, or meta-analysis
	Focus on Islamic education or Islamic contexts
Exclusion Criteria	Studies that do not address the integration of PBL with Islamic practice or context
	Articles irrelevant to educational outcomes, knowledge, practical skills, student attitudes, or engagement
	Articles not published in peer-reviewed journals
	Studies not related to formal education
	Articles outside the specified publication timeframe
	Articles not available in English or Indonesian

Source: Research Analysis, 2025

Data Analysis

Qualitative data were synthesized through thematic analysis to identify recurring patterns and variations in the integration of PBL and Islamic practices. For quantitative data, a meta-analysis was planned when data were sufficiently homogeneous. A random effects model was employed to calculate pooled effects, considering possible variations across studies. The detailed processes are presented in Figure 1.

Figure 1. SLR Process Using PRISMA

Source: Data Analysis, 2025

DISCUSSION

Based on the Scopus database search, 42 final articles met the inclusion criteria and were analyzed in depth. The distribution of these articles is summarized in Table 5.

Table 5. Summary of Article Distribution

Criteria	Year of Publication						Total
	20	**0**	**1**	**2**	**3**	**4**	
Publication Quartile (Scimago)							
Q1		1					6 8%
Q2							9%
Q3					4		3%
Q4							0%
Total		9			2		00%
Research Method							
Qualitative							2%
Quantitative					8		3%
Mix Methods							2%
Conceptual/Review/ Meta Analysis							4%
R&D							9%
Total		9			2		00%
Country Setting							
Asia		1			2		6%
Africa							%
America							%
Europe							%
Australia							%
Not Classified							9%
Total		0			2		00%
Research Focus							
Islamic Education					1		6%
General					1		4%
Total		0			2		00%

Source: Data Analysis, 2025

Based on Table 5, it can be concluded that 38% of the reviewed articles were published in Q1 journals, indicating high-quality research outputs. Meanwhile, 19% appeared in Q2, 33% in Q3, and 10% in Q4 journals.

Quantitative research dominates the methodology landscape, comprising 43% of the studies. This suggests a strong focus on measurable educational outcomes in PBL and Islamic education integration. Mixed methods and qualitative approaches each account for 12%, while R&D studies represent 19%, and conceptual/literature-based studies make up 14%.

Geographically, the research is concentrated in Asia (76%), while contributions from other regions, including America (5%), are limited. Notably, 19% of the studies did not specify a country's setting. Research specifically targeting Islamic education accounts for only 26%, with the majority (74%) addressing general education themes.

RQ1: How is Problem-Based Learning (PBL) integrated into Islamic practice within the context of formal education in schools?

A learning model, when linked to a lesson, can be understood as a pattern or plan used to develop the curriculum (as a long-term instructional roadmap), design learning materials, and create a more effective learning environment. Educators implement the learning model from beginning to end by ensuring alignment between all components to achieve educational goals (Asiyah & Ghofur, 2019). This review explores how PBL has been integrated into Islamic learning practices in formal schooling. Table 6 summarizes various forms of PBL integration in Islamic practices based on the reviewed literature.

Table 6. Forms of PBL Integration in Islamic Practices in Formal Schools

No	Forms of PBL Integration	Description	Sources
1	Curriculum Integration	PBL is employed as a learning framework where Islamic content is embedded in contextual problems.	Fathur Rohman, 2022; Hamdan et al., 2022; Hamzah et al., 2022; Hollman et al., 2019; Irwandi et al., 2022; Putra et al.,

No	Forms of PBL Integration	Description	Sources
			2021; Syazali et al., 2019; Tambak et al., 2023
2	Interdisciplinary Learning	PBL combines Islamic education with other disciplines (e.g., science, mathematics), enabling learners to identify connections between religious values and scientific knowledge.	Anjelina et al., 2020; Asyafah, 2014; Hernandez de Menendez et al., 2019; Ibnian, 2023; Kusaeri et al., 2019; Laoulach, 2021; Oktadela et al., 2019; Putra et al., 2021; Sayyah et al., 2017; Syazali et al., 2019; Tambak et al., 2023
3	Character-Based Learning	PBL fosters students' character development through the integration of Islamic values in daily activities, such as honesty, responsibility, and teamwork.	Fathur Rohman, 2022; Irwandi et al., 2022; Nawi et al., 2020
4	Contextual and Digital PBL	PBL is enhanced through contextual applications and digital platforms to bridge theory with real-life experiences.	Edstrom & Kolmos, 2014; Farida et al., 2017; Hamzah et al., 2022; Hidayati et al., 2020; Suhirman & Prayogi, 2023; Syazali et al., 2019; GAN Zakaria & Nawi, 2020

Source: Data Analysis, 2025

Based on Table 6, there are four forms of PBL integration in Islamic education that have significant implications for the goals of Islamic education. These include curriculum development, interdisciplinary learning, character development, and contextual and digital learning. Each of these forms contributes in a unique way to fostering students' understanding of Islamic values while also equipping them with essential 21st-century skills. The following sections provide further explanation of each integration form.

Curriculum Integration

This approach involves using PBL as a curriculum framework where Islamic principles are embedded within problem scenarios. For instance, a problem task such as *"How can we understand the impact of historical events on the development of Islam?"* might involve students analyzing key events like the Battle of Badr or the conquest of Mecca. Students reconstruct these events by identifying causes and consequences and relating them to contemporary Islamic development. Outputs include creative projects such as role-play performances and analytical written reports (Fathur Rohman, 2022; Hamdan et al., 2022).

This integration fosters not only contextual and meaningful learning but also cultivates critical skills such as teamwork, communication, and project management (Irwandi et al., 2022). Thus, embedding PBL in curriculum design contributes significantly to the formation of both cognitive competencies and moral character.

Interdisciplinary Learning

Interdisciplinary learning refers to the effort to integrate religious studies with other subjects such as science and mathematics, enabling students to perceive the interconnectedness between scientific concepts and Islamic teachings. The integration of Problem-Based Learning (PBL) in merging religious education with other disciplines offers students a holistic perspective. For example, in topics related

to environmental conservation, students simultaneously learn ecological principles in modern science and understand Islamic perspectives on human responsibility toward nature (Asyafah, 2014; Ibnian, 2023; Kusaeri et al., 2019).

Integrative learning that combines religious teachings with science and mathematics encourages students to think critically and analytically, enabling them to solve problems comprehensively (Hernandez de Menendez et al., 2019). One example includes students studying natural phenomena such as rain from both scientific and Qur'anic perspectives. They are assigned to investigate the processes of condensation and precipitation in the water cycle while identifying relevant Qur'anic verses that explain these phenomena. The outcomes are presented in a format that blends scientific explanations with Qur'anic interpretations, helping students appreciate the harmony between modern science and Islamic values (Putra et al., 2021; Sayyah et al., 2017).

Character-Based Learning

The implementation of PBL to foster character development focuses on instilling Islamic values such as honesty, responsibility, and cooperation through everyday learning activities. Studies, such as that by Irwandi et al. (2022), reveal that PBL has a significant positive impact on students' religious character traits, as evidenced by ANCOVA test results indicating a p-value below 0.05. Students are encouraged to participate in co-curricular activities requiring teamwork and social responsibility. Outputs may include leadership simulations and applied social responsibility projects rooted in Islamic teachings (Fathur Rohman, 2022; Irwandi et al., 2022; Nawi et al., 2020), reflecting the internalization of both ethical and intellectual competencies.

Moreover, co-curricular activities provide further opportunities for students to demonstrate and internalize these values through group-based tasks and social responsibilities (GAN Zakaria & Nawi, 2020). Students involved in such PBL-oriented programs understood theoretical concepts like leadership and social responsibility in Islam and were able to apply them in real-life situations. In essence, PBL serves not only to enhance academic intelligence but also to build strong religious and ethical character among students (Nawi et al., 2020).

Contextual and Digital PBL

The contextual and digital application of PBL in Islamic education leverages real-life problems and digital platforms to enhance students' engagement and critical thinking. This form of learning connects theoretical Islamic content with real-world issues, encouraging practical application and fostering deeper understanding.

A study by Edstrom & Kolmos (2014) shows that digital PBL integration in education helps students understand the relevance and practical application of the knowledge they acquire. First, by using Virtual PBL practices via online discussion forums, students are encouraged to solve real problems—such as how to bring Islamic education to remote regions where resources are limited. Second, the Lesson Study for Learning Community (LSLC) method, based on Problem-Based Learning (PBL), is used as both a learning and evaluation tool. Third, digital mind maps (e.g., MindMeister or Coggle) are employed for mapping students' thoughts. These mind maps help students detail problems, connect core Islamic concepts, and plan the solutions they aim to develop. Fourth, PBL is enriched by using assistive virtual simulations such as PhET (Physics Education Technology) in mobile applications. For example, students use PhET simulations to explore planetary motion as a method to understand Qibla direction determination.

RQ2: What is the impact of PBL integration in Islamic practices on educational outcomes, including knowledge, practical skills, and student attitudes?

The integration of Problem-Based Learning (PBL) in Islamic practices is an increasingly adopted pedagogical approach in Islamic education. PBL places students in real-life situations that require problem-solving, encouraging active engagement in learning. When PBL is integrated with Islamic teachings and practices, it not only allows students to develop religious knowledge but also strengthens practical skills and attitudes aligned with Islamic values (Alkandari & Alabdulhadi, 2023).

Table 7. The Impact of PBL Integration in Islamic Practices on Educational Outcomes

No	Aspect	Impact	Sources
1	Knowledge	Improvement in understanding of Islamic and interdisciplinary materials	Abrami et al., 2015; Ediansyah et al., 2019; Farida et al., 2017; Hidayati et al., 2019; Irwandi et al., 2022; Oktadela et al., 2019; Omar, 2022; Saadah et al., 2019; Sakur et al., 2018; Salari et al. al., 2018; Zainal et al., 2022
2	Skills	Development of critical, analytical, and problem-solving skills	Abrami et al., 2015; Asyafah, 2014; Gani et al., 2021; Hashima & Samsudin, 2020; Haviz et al., 2020; Helaluddin et al., 2023; Omar, 2022; Putra et al., 2021; Saadah et al., 2019
		Improvement of collaboration and project management skills	Amin et al., 2022; Hashima & Samsudin, 2020; Rahmanian & Nouhi, 2020
3	Attitude	Positive attitude toward Islamic learning and teachings	Harackiewicz et al., 2016; Omar, 2022; Saadah et al., 2019
		Increased involvement in Islamic activities	Irwandi et al., 2022
		Positive changes in behavior and ethics	Nawi et al., 2020; Oktadela et al., 2019

Source: Data Analysis, 2025

Based on Table 7, the integration of Problem-Based Learning (PBL) in Islamic education provides positive impacts on educational achievement, including improvements in knowledge, practical skills, and attitudes. Each aspect has important implications for the holistic development of students.

Knowledge

Improvement in Understanding Islamic and Interdisciplinary Materials

The application of PBL has been proven effective in increasing students' understanding of Islamic content and its interdisciplinary relevance to other subjects such as science and mathematics. Studies show that students involved in PBL can comprehend Islamic concepts more deeply and contextually, as well as connect Islamic teachings with scientific knowledge.

Abrami et al. (2015) demonstrated that the PBL approach enhances comprehensive understanding of religious and scientific concepts simultaneously. Similarly, Ediansyah et al. (2019) found that PBL helps students link Islamic knowledge to other academic disciplines, enriching their holistic understanding. Farida et al. (2017) and Hidayati et al. (2019) also support the claim that PBL integration fosters students' critical and analytical thinking.

Skills

Development of Critical, Analytical, and Problem-Solving Skills

PBL has proven to be an effective strategy for developing students' critical thinking, analytical reasoning, and problem-solving capabilities. Abrami et al. (2015) reported a significant improvement in students' critical thinking skills through PBL, showing a strong relationship between critical thinking and creativity (Y = 35.439 + 0.485x).

Asyafah (2014) also found that PBL enhances students' ability to analyze complex problems and identify relevant solutions, with a correlation of 0.861 between critical thinking and knowledge acquisition, and a determination coefficient of 0.742 (Y = 1.215X - 4.323). These findings affirm that PBL contributes significantly to the development of higher-order thinking skills, equipping students to tackle real-world problems effectively within an Islamic framework.

Improvement of collaboration and project management skills

PBL emphasizes teamwork, task-sharing, and effective project management, which are essential skills for 21st-century learning. Amin et al. (2022) demonstrated that PBL significantly enhances students' collaborative abilities. Students are trained to communicate within their teams, which fosters an understanding of the importance of collaboration in addressing complex tasks. Hashima & Samsudin (2020) also found that PBL participants are more capable of managing tasks and projects effectively.

Attitude

Positive Attitudes toward Islamic Learning and Teachings

Problem-Based Learning (PBL) plays a significant role in fostering positive attitudes among students toward Islamic learning and teachings. According to Harackiewicz et al. (2016) , PBL enhances students' interest in learning by making it more relevant and contextual. In the context of Islamic education, this approach allows students to connect theoretical concepts with real-life applications, thereby increasing their motivation and enthusiasm. Students engaged in PBL tend to demonstrate stronger commitment to Islamic values (Omar, 2022; Saadah et al., 2019).

Improved Engagement and Participation in Islamic Activities

PBL not only influences students' attitudes but also enhances their involvement in religious activities. Students who participate in PBL tend to engage more actively in religious practices both at school and in their communities. They are more frequently involved in activities such as congregational prayers, Quranic recitations, and social initiatives based on Islamic values, reflecting a deeper commitment to their faith. For instance, integrating PBL with Decision-Making Models (DMM) in Islamic education is an effective strategy to teach students how to identify problems and make wise decisions grounded in Islamic principles.

Positive Changes in Behavior and Ethics

One of the key impacts of PBL is the positive transformation in students' behavior and ethical conduct. PBL contributes to character development by embedding Islamic values into daily activities. As students practice religious principles in real-life contexts, they become more honest, responsible, and tolerant (Nawi et al., 2020; Oktadela et al., 2019). For example, when working on PBL-based projects in teams, students learn to communicate effectively, respect others' opinions, and act with integrity. These experiences shape their character and enable them to apply Islamic ethics in everyday social interactions. These behavioral changes extend beyond academic settings into students' social

lives, highlighting the vital role of PBL in character formation aligned with Islamic teachings.

RQ3: What Is the Impact of PBL Integration in Islamic Practices on Students' Religious Involvement?

Religious involvement refers to the extent of one's participation and commitment to religious practices and activities. In the context of PBL integration into Islamic education, this involvement includes students' active engagement in religious events, understanding of Islamic teachings, and application of religious principles in daily life.

Table 8. The Impact of PBL Integration in Islamic Practices on Students' Religious Involvement

No	Aspect of Religious Involvement	Impact	Sources
1	Active Participation	Increased involvement in religious activities	Hussin & Tamuri, 2019; Nawi & Zakaria, 2019; Taja et al., 2021
2	Religious Understanding	Deeper comprehension of Islamic teachings	Hamdan et al., 2022; Hussin & Tamuri, 2019; Nawi & Zakaria, 2019; Omar, 2022; G. Zakaria & Nawi, 2020
3	Social Engagement	Greater participation in Islamic-based social activities	Amin et al., 2020; Farida et al., 2017; Nawi & Zakaria, 2019
4	Religious Commitment	Stronger commitment to Islamic values and practices	Hamdan et al., 2022; Irwandi et al., 2022; Nawi & Zakaria, 2019; Taja et al., 2021
5	Emotional Engagement	Heightened emotional connection to Islamic teachings	Hussin & Tamuri, 2019; Nawi & Zakaria, 2019
6	Intellectual Engagement	Increased interest and curiosity in Islamic studies	Hussin & Tamuri, 2019; Laoulach, 2021; Nawi & Zakaria, 2019; G. Zakaria & Nawi, 2020

Source: Data Analysis, 2025

Active Participation

The implementation of Problem-Based Learning (PBL) in Islamic education has proven effective in increasing students' active participation in various religious activities. PBL encourages students not only to understand Islamic teachings at a theoretical level but also to apply them in their daily lives. This includes involvement in activities such as congregational prayers, Quran recitation, and other religious events both within and outside the school environment. A study by Hussin & Tamuri (2019) shows that students involved in PBL tend to participate more frequently in religious activities at school. They are more motivated to join prayer sessions and religious study groups, and they actively engage in other religious events. This is attributed to the way PBL connects learning materials with real-life experiences, making Islamic teachings more relevant and engaging for students.

Furthermore, a study by Taja et al. (2021) noted that active involvement in religious activities through PBL helps students develop strong religious habits. Practices such as performing congregational prayers and studying the Quran become integral parts of their daily routines. These habits not only strengthen their faith but also shape their character based on Islamic values such as discipline, responsibility, and solidarity.

Religious Understanding

PBL enhances students' deeper understanding of Islamic teachings. Through this approach, students not only learn Islamic knowledge theoretically but also understand how to apply it in real-life contexts. Research by Hamdan et al. (2022) revealed that the experimental group, which was taught using the PBL model, achieved a higher mean score (M = 4.05, SD = 1.33) compared to the control group (M = 3.25, SD = 1.21). This indicates that students in the PBL group demonstrated a superior understanding of

religious concepts after the learning process, compared to those taught using conventional methods.

Social Engagement

PBL also increases students' participation in Islamic-based social activities. The literature indicates that this approach encourages students to become more active in community service and humanitarian activities inspired by Islamic values. Students exposed to PBL tend to demonstrate higher levels of care and involvement in social initiatives, thereby reinforcing a sense of solidarity and empathy toward others. Farida et al. (2017) reported that PBL increased teachers' interest in madrasahs by 0.792 standard deviations ($p < 0.1$) and students' participation in communicating ideas in class by 0.995 standard deviations ($p < 0.1$). This form of social engagement not only benefits the wider community but also helps students develop important interpersonal skills and a sense of social responsibility—qualities that are essential for their future roles in society (Amin et al., 2020; Farida et al., 2017; Nawi & Zakaria, 2019).

Religious Commitment

Problem-Based Learning (PBL) supports the development of students' commitment to Islamic values and practices. Through its emphasis on real-life application, PBL allows students to internalize Islamic teachings and integrate them into their daily lives. Students involved in PBL show positive changes in attitudes and behaviors aligned with Islamic values such as honesty, responsibility, and tolerance. Hamdan et al. (2022) found that students taught through PBL tend to exhibit a deeper understanding of Islamic values and are more motivated to practice them consistently in their everyday lives. The increased commitment to Islamic values fostered through PBL also strengthens students' religious identity. They become more confident in performing religious duties and more steadfast in following Islamic principles (Nawi & Zakaria, 2019). As such, the application of PBL in Islamic education is crucial in shaping morally upright and responsible individuals.

Emotional Engagement

PBL strengthens students' emotional connection with Islamic teachings. According to research by Hussin & Tamuri (2019), students in the experimental group had an average N-gain value of 0.6, categorized as moderate, while the control group scored an average N-gain of 0.3, categorized as low. This finding suggests that students engaged in PBL feel more emotionally connected to their religion, showing greater affection and appreciation for Islamic teachings.

Intellectual Engagement

PBL enhances students' intellectual engagement and stimulates their curiosity about Islamic studies. Students exposed to PBL exhibited a stronger interest in learning and exploring Islamic teachings more deeply (Hussin & Tamuri, 2019). They also engaged in independent and formal study of Islamic content (Nawi & Zakaria, 2019). This approach has proven effective in cultivating intellectual enthusiasm among students. The PBL model significantly improved students' critical thinking skills and knowledge ($p = 0.010$) as well as their interest in learning ($p = 0.000$). Intellectual engagement fostered through PBL not only enriches students' understanding of Islam but also builds analytical and reflective thinking skills essential for their academic and personal development (Laoulach, 2021; G. A. N. Zakaria & Nawi, 2020).

CLOSING

Based on a systematic review of 42 relevant articles published between 2014 and 2024, this study concludes that the integration of Problem-Based Learning (PBL) into Islamic education has demonstrated significant potential in

enhancing educational quality, promoting deeper understanding of Islamic teachings, and strengthening students' religious involvement. First, PBL facilitates a more holistic and contextual learning environment by connecting theoretical Islamic knowledge with real-life applications. This approach not only improves students' cognitive outcomes but also nurtures essential life skills such as problem-solving, collaboration, and ethical reasoning. Second, PBL has a considerable impact on students' learning processes, including the development of practical skills, critical thinking abilities, and positive attitudes toward Islamic education. The literature further reveals that students exposed to PBL exhibit increased engagement, higher motivation, and a more meaningful connection with Islamic teachings. Third, PBL contributes significantly to various aspects of students' religious involvement, including active participation in religious activities, deeper understanding of Islamic principles, enhanced emotional and intellectual engagement, and stronger commitment to religious practices. These findings affirm that PBL is an effective pedagogical model for fostering not only academic success but also the spiritual and moral development of students in Islamic education contexts. Future research is encouraged to explore the long-term implementation and adaptation of this approach across diverse educational settings to ensure its sustained effectiveness and relevance.

ACKNOWLEDGEMENT

REFERENCES

Abrami, P. C., Bernard, R. M., Borokhovski, E., Waddington, D. I., Wade, C. A., & Persson, T. 2015. Strategies for Teaching Students to Think Critically. *Review of Educational Research*, *85*(2), 275–314. https://doi.org/10.3102/0034654314551063

Alkandari, K., & Alabdulhadi, M. 2023. Promoting Self-Regulation Skills Among Pre-Service Islamic Studies Teachers Through Project-Based Learning Utilizing a Flipped Learning Strategy. *International Journal of Learning, Teaching and Educational Research*, *22*(5), 74–100. https://doi.org/10.26803/ijlter.22.5.4

Amin, S., Sumarmi, S., Bachri, S., Susilo, S., Mkumbachi, R. L., & Ghozi, A. 2022. Improving Environmental Sensitivity through Problem-Based Hybrid Learning (PBHL): An Experimental Study. *Jurnal Pendidikan IPA Indonesia*, *11*(3), 387–398. https://doi.org/10.15294/jpii.v11i3.38071

Amin, S., Utaya, S., Bachri, S., Sumarmi, & Susilo, S. 2020. Effect of Problem Based Learning on Critical Thinking Skill and Enviromental Attitude. *Journal for the Education of Gifted Young Scientists*, *8*(2), 743–755. https://doi.org/10.17478/jegys.650344

Anjelina, Z., Usman, & Marwan. 2020. Students' metacognitive abilities in solving derivative problems. *Journal of Physics: Conference Series*, *1460*(1), 012044. https://doi.org/10.1088/1742-6596/1460/1/012044

Asiyah, N., & Ghofur, A. 2019. Cultivating spiritual and social attitudes in elementary school students: Evaluative study with cipp approach on the learning ofreligious and character education. *International Journal of Scientific and Technology Research*, *8*(8), 699–705.

Asyafah, A. 2014. Research based instruction in the teaching of islamic education. *SpringerPlus*, *3*(1), 755. https://doi.org/10.1186/2193-1801-3-755

Buto, Z. A. 2010. Implikasi Teori Pembelajaran Jerome Bruner Dalam Nuansa Pendidikan Modern. *Millah*, *ed*(khus), 55–69. https://doi.org/10.20885/millah.ed.khus.art3

Darmawan, D., Qomaruzzaman, B., Hanan, A., & Mauliddin, A. I. 2024. *The Impact Of Problem-Based Learning On Understanding And Application Of Tafsīr Among University Students*. *30*(5), 8684–8690. https://doi.org/10.53555/kuey.v30i5.4444

Destriani, Idi Warsah, Asri Karolina, Sutarto, & Gerard Krzic . 2024. The Analysis of 4C-Based Learning Implementation for Islamic Religious Education Students. *TADRIS: Jurnal Pendidikan Islam*, *19*(1), 1–12. https://doi.org/10.19105/tjpi.v19i1.9917

Ediansyah, E., Kurniawan, D. A., Perdana, R., & Salamah, S. 2019. Using problem-based learning in college: Mastery concepts subject statistical sesearch and motivation. *International Journal of Evaluation and Research in Education (IJERE)*, *8*(3), 446. https://doi.org/10.11591/ijere.v8i3.20243

Edstrom, K., & Kolmos, A. 2014. PBL and CDIO: complementary models for engineering education development. *European Journal of Engineering Education*, *39*(5), 539–555. https://doi.org/10.1080/03043797.2014.895703

Farida, I., Hadiansyah, H., Mahmud, M., & Munandar, A. 2017. Project-Based Learning Design for Internalization of Environmental Literacy with Islamic Values. *Jurnal Pendidikan IPA Indonesia*, *6*(2), 277. https://doi.org/10.15294/jpii.v6i2.9452

Fathur Rohman. 2022. Problem Based Learning in Islamic Religious Education: The Case of the Indonesian Pesantren. *Global Journal Al Thaqafah*, *12*(1), 82–97. https://doi.org/10.7187/GJAT072022-5

Gani, A., Zulaikhah, S., Irsyady, K. A., & Siregar, F. M. 2021. Problem-based Learning and Thinking Style Impact on Information Literacy Skill Improvement among Islamic Education Department Students. *Library Philosophy and Practice*, *2021*, 1–12. https://api.elsevier.com/content/abstract/scopus_id/85113779360

Gunawan, M. A., Fitri, A., & Nelli Murodah. 2024. Develompment of an E-Module For Educational Evaluation Course With a Problem Based Learning Framework. *Edukasia Islamika*, *9*(1), 132–144. https://doi.org/10.28918/jei.v9i1.7242

Hakima, A., & Hidayati, L. 2020. Peran Model Experiential Learning dalam Pendidikan Berbasis Keterampilan Tata Busana. *E-Journal*, *09*(03), 51–59.

Hamdan, H., Nashuddin, N., & Fadli, A. 2022. The Implementation of Multicultural Islamic Religious Education Model at Darul Muhajirin Praya High School. *Jurnal Pendidikan Agama Islam*, *19*(1), 165–178.

https://doi.org/10.14421/jpai.2022.1 91-12

Hamzah, H., Tambak, S., Hamzah, M. L., Purwati, A. A., Irawan, Y., & Umam, M. I. H. 2022. Effectiveness of Blended Learning Model Based on Problem-Based Learning in Islamic Studies Course. *International Journal of Instruction*, *15*(2), 775–792. https://doi.org/10.29333/iji.2022.15 242a

Harackiewicz, J. M., Smith, J. L., & Priniski, S. J. 2016. Interest Matters. *Policy Insights from the Behavioral and Brain Sciences*, *3*(2), 220–227. https://doi.org/10.1177/2372732216 655542

Hashima, I., & Samsudin, S. 2020. Practices of problem-based learning (PBL) in teaching islamic studies in malaysian public universities. *International Journal of Innovation, Creativity and Change*, *11*(10), 117–129. https://api.elsevier.com/content/abst ract/scopus_id/85083057521

Haviz, M., Lufri, L., & Maris, I. M. 2020. Assessing Prospective Biology Teachers (PBTs) Perceptions on Thinking as a 21st Century Skill: A Case Study at Islamic University. *Jurnal Pendidikan IPA Indonesia*, *9*(3), 319–329. https://doi.org/10.15294/jpii.v9i3.24 077

Helaluddin, H., Mannahali, M., Purwati, D., Alamsyah, A., & Wijaya, H. 2023. An Investigation into the Effect of Problem-based Learning on Learners' Writing Performance, Critical and Creative Thinking Skills. *Journal of Language and Education*, *9*(2), 101–117. https://doi.org/10.17323/jle.2023.14 704

Hernandez de Menendez, M., Vallejo Guevara, A., Tudon Martinez, J. C., Hernandez Alcantara, D., & Morales Menendez, R. 2019. Active learning in engineering education. A review of fundamentals, best practices and experiences. *International Journal on Interactive Design and Manufacturing (IJIDeM)*, *13*(3), 909–922. https://doi.org/10.1007/s12008-019-00557-8

Hidayah, S. F., & Khunaivi, H. 2022. Problem-Based Learning in Pancasila and Civic Education and Its Implications on Students' National Character. *MUDARRISA: Jurnal Kajian Pendidikan Islam*, *14*(2), 102–120. https://doi.org/10.18326/mdr.v14i2. 102-120

Hidayati, N., Zubaidah, S., Suarsini, E., & Praherdhiono, H. 2019. Examining the Relationship between Creativity and Critical Thinking through Integrated Problem-based Learning and Digital Mind Maps. *Universal Journal of Educational Research*, *7*(9A), 171–179. https://doi.org/10.13189/ujer.2019.0 71620

Hidayati, N., Zubaidah, S., Suarsini, E., & Praherdhiono, H. 2020. The Relationship between Critical Thinking and Knowledge Acquisition: The Role of Digital Mind Maps-PBL Strategies. *International Journal of Information and Education Technology*, *10*(2), 140–145. https://doi.org/10.18178/ijiet.2020.1 0.2.1353

Hollman, A. K., Hollman, T. J., Shimerdla, F., Bice, M. R., & Adkins, M. 2019. Information technology pathways in education: Interventions with middle school students. *Computers & Education*, *135*, 49–60. https://doi.org/10.1016/j.compedu.2 019.02.019

Hussin, N. H., & Tamuri, A. H. 2019. Embedding values in teaching Islamic education among excellent teachers. *Journal for Multicultural*

Education, *13*(1), 2–18. https://doi.org/10.1108/JME-07-2017-0040

Ibnian, S. S. 2023. The Impact of Proposed Online Problem-Based Learning Activities on Developing University EFL Students' Expository Essay Writing. *Jordan Journal of Modern Languages and Literatures*, *15*(1), 245–268. https://doi.org/10.47012/jjmll.15.1.13

Ilham, M. F., Arba'iyah, & Tiodora, L. 2023. Implementasi Teori Belajar Perspektif Psikologi Konstruktivisme. *Multilingual*, *3*(3), 380–391.

Irwandi, I., Santoso, S., Sakroni, S., Lukitasari, M., & Hasan, R. 2022. School-community Collaboration in Inquiry-based Learning to Strengthen Religious Character and Improve Learning Outcome of Students. *International Journal of Instruction*, *15*(3), 913–930. https://doi.org/10.29333/iji.2022.15349a

Kusaeri, K., Hamdani, A. S., & Suprananto, S. 2019. Student Readiness And Challenge In Completing Higher Order Thinking Skill Test Type For Mathematics. *Infinity Journal*, *8*(1), 75. https://doi.org/10.22460/infinity.v8i1.p75-86

Laoulach, R. 2021. Should Philosophy Be the Tool for Inquiry-Based Learning in Religious Education? *Religion & Education*, *48*(3), 265–283. https://doi.org/10.1080/15507394.2021.1932399

Mailin, Sazali, H., & Dharma, S. W. 2023. Development of Religious Moderation in North. *Al Qalam*, *29*(2), 243–253.

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. 2009. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*, *339*(jul21 1), b2535–b2535. https://doi.org/10.1136/bmj.b2535

Nawi, A., Abdul Nasir Zakaria, G., & Hashim, N. 2020. Effective Communication Through Problem-Based Learning in Islamic Education Course at the Higher Institute of Education. *Jurnal Komunikasi: Malaysian Journal of Communication*, *36*(1), 20–40. https://doi.org/10.17576/JKMJC-2020-3601-02

Nawi, A., & Zakaria, G. A. N. 2019 The Impact of Applying Religious Values through Online Problem-Based Learning among Undergraduate Students: A Quasi-Experimental Study. *International Journal of Learning, Teaching and Educational Research*, *18*(8), 192–213. https://doi.org/10.26803/ijlter.18.8.12

Oktadela, R., Mukhaiyar, Gistituati, N., & Amri, Z. 2019. Developing A Problem-Based Learning/PBL Model for Improve Students' English Speaking Problem Solving Ability and Self Confidence at Economic Department of University. *Journal of Physics: Conference Series*, *1387*(1), 012045. https://doi.org/10.1088/1742-6596/1387/1/012045

Omar, M. T. M. 2022. The Effectiveness of the Problem-Solving Strategy in Enhancing the Academic Achievement of Islamic Studies Students at a Saudi College. *Journal of Education and E-Learning Research*, *9*(3), 129–135. https://doi.org/10.20448/jeelr.v9i3.4101

Pamessangi, A. A., Takwim, M., Kaharuddin, & Nazaruddin, R. 2024. Cultivating Religious Moderation Values Through Mangaji Tudang At Ma'had Aly In South Sulawesi. *30*(2), 360–369.

Parhan, M., Syahidin, Somad, M. A., Abdulah, M., & Nugraha, R. H. 2024. Developing a Contextual Learning Model in Islamic Education To Improve Applicable Knowledge and Foster Knowledge-Based Virtues. *Jurnal Pendidikan Islam*, *10*(1), 75–86. https://doi.org/10.15575/jpi.v10i1.35205

Putra, A., Erita, S., Habibi, M., & Gina Gunawanand Febria Ningsih, R. 2021. Combining scientific approach and PBL in learning of set to improve mathematical creative thinking skills. *Journal of Physics: Conference Series*, *1778*(1), 012018. https://doi.org/10.1088/1742-6596/1778/1/012018

Rahmanian, A., & Nouhi, E. 2020. The Effect of Virtual Education with a Problem-Based Approach Using Virtual-Small Groups on Academic Achievement and Participatory Learning in Midwifery Students of Islamic Azad University, Jahrom Branch, Iran. *Strides in Development of Medical Education Journal*, *17*(1). https://doi.org/10.22062/sdme.2020.91548

Rahmayani, M., & Asrizal. 2024. Integrated Renewable Energy E-Module PBL Model with Smartphone to Improve Students' Creative Thinking and Communication Skills. *JPI (Jurnal Pendidikan Indonesia)*, *13*(1), 93–104. https://doi.org/10.23887/jpiundiksha.v13i1.65177

Saadah, L. Z. K., Hobri, & Irvan, M. 2019. The application of problem based learning (PBL) based on lesson study for learning community (LSLC) to improve students' creative thinking skill. *IOP Conference Series: Earth and Environmental Science*, *243*(1), 012141. https://doi.org/10.1088/1755-1315/243/1/012141

Sakur, Murni, A., & Anggraini, R. D. 2018. The effectiveness of learning instruments on the topic of the set using problem-based learning model at Islamic junior high school in Pekanbaru. *Journal of Physics: Conference Series*, *1088*, 012050. https://doi.org/10.1088/1742-6596/1088/1/012050

Salari, M., Roozbehi, A., Zarifi, A., & Tarmizi, R. A. 2018. Pure PBL, Hybrid PBL and Lecturing: which one is more effective in developing cognitive skills of undergraduate students in pediatric nursing course? *BMC Medical Education*, *18*(1), 195. https://doi.org/10.1186/s12909-018-1305-0

Sapdi, R. M., & Ali, N. 2022. Counterradicalism Through Religious Education Curriculum: Solution to The Religious Literacy Crisis in Indonesian Islamic Universities. *TADRIS: Jurnal Pendidikan Islam*, *17*(2), 260–271. https://doi.org/10.19105/tjpi.v17i2.7055

Sayyah, M., Shirbandi, K., Saki-Malehi, A., & Rahim, F. 2017. Use of a problem-based learning teaching model for undergraduate medical and nursing education: a systematic review and meta-analysis. *Advances in Medical Education and Practice*, *Volume 8*, 691–700. https://doi.org/10.2147/AMEP.S143694

Sholeh, M. I., Rohman, H., Suwandi, E. A., Akhyak, Efendi, N., & Muhajir, A. 2023. Transformation of Islamic Education: A Study of Changes in The Transformation of The Education Curriculum. *Jurnal Pendidikan Agama Islam*, *20*(1), 33–50. https://doi.org/10.14421/jpai.v20i1.6770

Suhirman, & Prayogi, S. 2023. Problem-based learning utilizing assistive virtual simulation in mobile

application to improve students' critical thinking skills. *International Journal of Education and Practice*, *11*(3), 351–364. https://doi.org/10.18488/61.v11i3.3380

Suwendi, Mesraini, Azka, F. L., & Gama, C. B. 2024. Implementation of Knowledge Integration in Islamic Higher Education. *Jurnal Pendidikan Islam*, *10*(1), 41–52. https://doi.org/10.15575/jpi.v10i1.35385

Syazali, M., Sari, N. R., Sukawati, Sari, W. R., Pertiwi, S. D., Putra, A., & Putra, F. G. 2019. Islamic-Nuanced Linear Algebra Module with Problem-Based Learning Approach for Linear Equation System Material. *Journal of Physics: Conference Series*, *1155*(1), 012097. https://doi.org/10.1088/1742-6596/1155/1/012097

Taja, N., Nurdin, E. S., Kosasih, A., Suresman, E., & Supriyadi, T. 2021. Character Education in the Pandemic Era: A Religious Ethical Learning Model through Islamic Education. *International Journal of Learning, Teaching and Educational Research*, *20*(11), 132–153. https://doi.org/10.26803/ijlter.20.11.8

Tambak, S., Marwiyah, S., Sukenti, D., Husti, I., & Zamsiswaya, Z. 2023. Problem-based learning methods: Is it effective for developing madrasa teacher social competence in teaching? *Journal of Education and Learning (EduLearn)*, *17*(3), 342–353. https://doi.org/10.11591/edulearn.v17i3.20796

Wibowo, L. T. S., & Mustofa, T. A. 2024. *Principal Leadership Innovation in Improving Teacher Performance in Integrated Islamic Schools*. *29*(2), 162–177.

Yanuardianto, E. 2019. Teori Kognitif Sosial Albert Bandura. *Auladuna : Jurnal Prodi Pendidikan Guru Madrasah Ibtidaiyah*, *1*(2), 94–111. https://doi.org/10.36835/au.v1i2.235

Zainal, S., Prasetyo, M. A. M., & Yaacob, C. M. A. 2022. Adopting Pesantren-Based Junior High School Programs: The Pesantren Change Its Educational System Without Conflict. *Jurnal Ilmiah Islam Futura*, *22*(2), 260. https://doi.org/10.22373/jiif.v22i2.13525

Zakaria, G. A. N., & Nawi, A. 2020. Design and Development of a PBL Mobile Application in Islamic Education: A Conceptual Framework. *International Journal of Information and Education Technology*, *10*(1), 26–30. https://doi.org/10.18178/ijiet.2020.10.1.1334

Zakaria, G., & Nawi, A. 2020. The Effectiveness of Implementing Noble Values through Online Problem-Based Learning Among Students in Higher Learning Institution. *Proceedings of the Proceedings of the First International Conference on Science, Technology and Multicultural Education, ICOCIT-MUDA, July 25th-26th, 2019, Sorong, Indonesia*, *11*(8), 540–556. https://doi.org/10.4108/eai.25-6-2019.2294235