



Problem Based Learning in Action: A Qualitative Case Study on Learner Engagement and Critical Thinking Development in a Pesantren based Madrasah

Minhad Ali Yahya^{1*}, Rokim², Sahal Rizqan³

¹ Sunan Kalijaga State Islamic University, Yogyakarta, Indonesia

² Nahdlatul Ulama University Bangil, Pasuruan, Indonesia

³ Al-Azhar University in Cairo, Egypt

Email: yahyaminhajali@gmail.com

Abstract

This study aims to examine the implementation of Problem Based Learning (PBL) and its influence on learner engagement and critical thinking development in a pesantren based madrasah context. Employing a qualitative research design with a case study approach, the study was conducted at Madrasah Tsanawiyah Al-Khoirot Malang. Data were collected through classroom observations, in-depth interviews with teachers and students, and document analysis, and were analyzed using thematic analysis. The findings reveal that the application of PBL contributed to a significant enhancement of learner engagement across cognitive, affective, and psychomotor dimensions. Students demonstrated increased active participation, deeper conceptual understanding, positive learning attitudes, and improved collaborative problem-solving skills. Furthermore, the study indicates a notable development of students' critical thinking abilities, particularly in problem analysis, reasoning, and reflective judgment. Importantly, the integration of pesantren values such as discipline, responsibility, and ethical reasoning was effectively embedded within the PBL process, enriching both academic learning and character formation. These findings suggest that PBL can serve as a pedagogically and culturally responsive instructional model for pesantren based madrasahs.

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INTRODUCTION

The development of global society in the twenty-first century requires educational systems to move beyond the mere transmission of factual knowledge toward the cultivation of critical thinking, problem solving abilities, and active learner engagement (Fakhridana et al., 2026; Rahmania et al., 2026). Contemporary social challenges, including the rapid expansion of information, technological transformation, and the demand for adaptive human resources, position education as

a strategic instrument for shaping reflective and responsible individuals (Lailatur Rohanita, Husnul Hilar, 2026; Subairi, Muhammad Husni, 2025). International educational reports consistently indicate that passive, teacher centered instructional approaches are no longer sufficient to address these demands. Consequently, innovative learning models that actively engage students and foster higher-order thinking skills have become increasingly necessary (Azaim & Latif, Abdul, 2025; Zaironi, 2026). Problem Based Learning (PBL) is widely recognized as a relevant pedagogical approach because it situates learners as active agents who construct knowledge through engagement with authentic and contextual problems (Azizah et al., 2026; Lailatul Mufarrohah, 2026). Therefore, examining the implementation and impact of PBL is essential for advancing educational quality and promoting socially responsive and sustainable learning practices (Bisri et al., 2026; Ishmah Syafiulloh, Aisyah Nindi Antika, 2026).

Despite growing demands for twenty-first-century competencies, instructional practices in many educational institutions remain dominated by conventional approaches that emphasize memorization and one way knowledge transmission (Hikmah et al., 2026; Zuyyina Linda Sari, Kudsiyeh, Sholi Asrori, 2026). This condition has contributed to low levels of learner engagement across cognitive, affective, and psychomotor domains, as well as limited development of critical thinking skills (Fakhridana et al., 2026; Maqfiroh et al., 2025; Muzedi, Hesim, 2026). Students tend to be passive, reluctant to express ideas, and struggle to connect learning materials with real-life contexts. These challenges are not confined to general education institutions but are also evident in faith-based educational settings, including pesantren based madrasahs. Paradoxically, such institutions possess strong potential for character formation, moral development, and independent learning. The mismatch between institutional potential and classroom practice underscores the need to explore instructional models capable of addressing both pedagogical challenges and contextual demands within pesantren based educational environments.

Instructional practices in pesantren based madrasahs reveal a tension between traditional learning traditions and the demands of contemporary pedagogy (Sofi et al., 2025). On one hand, pesantren education emphasizes discipline, moral conduct,

and hierarchical knowledge transmission (Sarwadi & Raihan, 2025). On the other hand, students are increasingly required to develop critical, creative, and collaborative thinking skills (Tohani & Aulia, 2022). Preliminary observations in several madrasahs indicate that classroom instruction often remains content-oriented, while opportunities for active discussion and problem-solving are limited. As a result, students' analytical and reflective abilities have not been optimally developed. Nevertheless, emerging pedagogical innovations, including the adoption of Problem-Based Learning, have begun to appear in some pesantren based institutions. This phenomenon warrants closer investigation to understand how PBL is implemented within the pesantren context and how it influences learner engagement and critical thinking development.

Previous studies have consistently demonstrated that Problem Based Learning is effective in enhancing learner engagement and critical thinking skills across various educational contexts (Arsyad et al., 2024; Yu & Zin, 2023). Research conducted in general schools and higher education institutions indicates that PBL promotes meaningful learning through active participation, collaboration, and engagement with authentic problems (Almulla, 2020; Hsbollah & Hassan, 2022). Learners involved in PBL environments tend to exhibit improvements in analytical skills, reasoning abilities, and decision-making processes (Loyens et al., 2023). Moreover, PBL has been associated with positive learning attitudes and increased intrinsic motivation. However, most of these studies have been conducted in secular educational settings and have predominantly employed quantitative approaches to measure learning outcomes. In-depth qualitative investigations that explore the learning process itself remain relatively limited, particularly within Islamic educational contexts such as pesantren based madrasahs.

Research on the implementation of PBL in madrasah and pesantren settings remains limited and fragmented. Existing studies often focus on cognitive learning outcomes while neglecting affective and psychomotor dimensions of learner engagement (AlAfnan, 2025; Xu et al., 2023). Furthermore, the integration of pesantren values within the PBL framework has rarely been examined as a central analytical focus. Given that pesantren institutions are deeply rooted in religious and moral

values, such integration holds significant implications for instructional design and pedagogical practice. The research gap lies in the lack of holistic qualitative studies that examine how PBL is enacted in pesantren based madrasahs, how learner engagement develops across cognitive, affective, and psychomotor domains, and how pesantren values are embedded within the learning process. Addressing this gap is essential for generating a more contextualized and comprehensive understanding of PBL in Islamic education.

The novelty of this study lies in its qualitative case study approach, which provides an in-depth exploration of Problem Based Learning practices within a pesantren based madrasah. Rather than focusing solely on learning outcomes, this research examines pedagogical processes, classroom dynamics, and students' learning experiences. Additionally, the study foregrounds the integration of pesantren values as a key analytical dimension, offering a culturally responsive perspective on PBL implementation. By investigating learner engagement across cognitive, affective, and psychomotor dimensions alongside the development of critical thinking skills, this study contributes both conceptually and empirically to the discourse on innovative pedagogy in Islamic education. Consequently, this research holds significant theoretical and practical value for the advancement of context-sensitive instructional models in pesantren based madrasahs.

Based on the preceding discussion, this study addresses the question of how Problem Based Learning is implemented in a pesantren based madrasah and how it influences learner engagement and the development of critical thinking skills. The study is grounded in the argument that PBL, when contextually adapted and integrated with pesantren values, can function as an effective and meaningful instructional model. It is provisionally assumed that PBL enhances holistic learner engagement and fosters critical thinking through engagement with contextually relevant problems aligned with students' lived experiences. The findings of this study are expected to contribute to the body of knowledge in educational research, particularly in the development of innovative pedagogical practices within pesantren based madrasahs, while also offering practical recommendations for educators and educational policymakers.

RESEARCH METHOD

This study employed a qualitative research design using a case study (Gammelgaard, 2017; Khan, 2019) approach to explore the implementation of Problem Based Learning (PBL) and its influence on learner engagement and critical thinking development in a pesantren based madrasah. A qualitative case study was selected to capture the complexity of pedagogical processes, classroom interactions, and participants' lived experiences within a specific educational context. This design allows for an in-depth and holistic examination of how PBL is enacted, interpreted, and experienced by teachers and students. Given the contextual, value-laden nature of pesantren based education, a qualitative approach was deemed most appropriate for uncovering nuanced meanings and processes that cannot be adequately captured through quantitative methods. The case study approach also enables a detailed understanding of instructional practices embedded within a real-life institutional setting.

The research was conducted at Madrasah Tsanawiyah Al-Khoirot Malang, a pesantren based secondary Islamic school in East Java, Indonesia. This site was purposively selected due to its active implementation of Problem Based Learning within its instructional practices and its strong integration of pesantren values in daily educational activities. The madrasah represents a relevant and information-rich case for examining the intersection between innovative pedagogy and religious-based education. Additionally, the institution's openness to pedagogical innovation and accessibility for prolonged engagement enabled the researcher to conduct sustained observations and in-depth data collection. These characteristics made Madrasah Tsanawiyah Al-Khoirot Malang an appropriate setting for exploring how PBL operates within a pesantren based educational environment.

Data were collected using multiple qualitative techniques to ensure depth and triangulation. Classroom observations were conducted to examine instructional practices, student engagement, and classroom dynamics during PBL implementation. In-depth semi-structured interviews were carried out with teachers and selected

students to capture their perspectives, experiences, and reflections on PBL. Document analysis was also employed, including lesson plans, instructional materials, and school policy documents, to contextualize classroom practices and curricular intentions. These data collection methods enabled the researcher to obtain comprehensive insights into both the processes and outcomes of PBL implementation. The combination of observations, interviews, and document analysis enhanced the credibility and richness of the data.

Data analysis followed an interactive and iterative process involving data condensation, data display, and conclusion drawing and verification (Monaro et al., 2022; Richards & Hemphill, 2018). Data condensation included coding, categorization, and thematic reduction to identify patterns related to learner engagement, critical thinking development, and the integration of pesantren values (Neale, 2016). Data were then organized and presented in narrative and thematic displays to facilitate interpretation. Verification was conducted through constant comparison and reflective analysis to ensure analytical rigor. To establish trustworthiness, credibility was enhanced through triangulation of data sources and techniques, member checking, and prolonged engagement in the field. Dependability and confirmability were addressed through audit trails and peer debriefing, while transferability was supported by rich, thick descriptions of the research context.

RESULT AND DISCUSSION

RESULT

Learner Engagement and Critical Thinking Development through Problem-Based Learning

In this study, learner engagement is operationally defined as students' active involvement in the learning process across cognitive, affective, and psychomotor dimensions during the implementation of Problem Based Learning (PBL). Cognitive engagement refers to students' intellectual effort in analyzing problems and constructing knowledge; affective engagement relates to motivation, interest, and learning attitudes; and psychomotor engagement involves observable participation in collaborative tasks and problem-solving activities. Critical thinking development is

defined as students' ability to analyze problems, evaluate information, articulate arguments, and reflect on solutions within real-life and religiously contextualized learning situations. In the pesantren based madrasah context, both constructs are understood as intertwined with pesantren values, such as discipline, responsibility, cooperation, and ethical reasoning, which shape students' learning behaviors and cognitive dispositions during PBL activities.

Table 1. Interview Data

Interview Excerpt	Indicator	Informant
"Students became more active in discussing problems and connecting lessons with daily life."	Cognitive engagement	Teacher
"I feel more confident expressing my ideas during group discussions."	Affective engagement	Student
"We work together to solve problems, not just listen to the teacher."	Psychomotor engagement	Student
"Students ask deeper questions and justify their answers."	Critical thinking development	Teacher

The interview data indicate that PBL substantially transformed students' learning roles from passive recipients to active participants. Cognitive engagement emerged through students' increased ability to analyze problems and relate learning materials to real-life contexts. This shift suggests that PBL created meaningful learning situations that required students to think beyond rote memorization. The affective dimension is reflected in students' growing confidence and willingness to express ideas, indicating a positive emotional connection to the learning process. Such engagement is essential for sustaining motivation and fostering self-directed learning. Furthermore, psychomotor engagement was evident in collaborative activities, where students actively participated in group problem-solving tasks. These findings demonstrate that PBL facilitates holistic learner engagement rather than isolated cognitive improvement.

Beyond engagement, the data reveal a notable development of students' critical thinking abilities. Teachers observed that students increasingly asked analytical questions and provided reasoned justifications for their answers. This indicates a shift toward higher-order thinking skills, such as analysis and evaluation. In the pesantren based context, critical thinking did not contradict religious values but was instead framed as a reflective and ethical reasoning process. Students were encouraged to

consider moral implications alongside logical solutions. This integration suggests that PBL can harmonize cognitive rigor with value-based education. Thus, critical thinking development in this context is not purely technical but also reflective and ethically grounded, aligning with the educational philosophy of pesantren.

Classroom observations supported the interview findings by revealing increased student interaction, sustained attention, and collaborative engagement during PBL sessions. Students actively negotiated meanings, divided responsibilities, and presented solutions confidently. The researcher observed that teachers acted as facilitators rather than sole knowledge providers, guiding discussions and prompting reflection. Pesantren values such as discipline and mutual respect were consistently evident in group interactions. These observations confirm that PBL fostered an environment conducive to active learning and critical inquiry. The integration of structured problem scenarios with moral reflection further enhanced students' engagement and thinking processes.

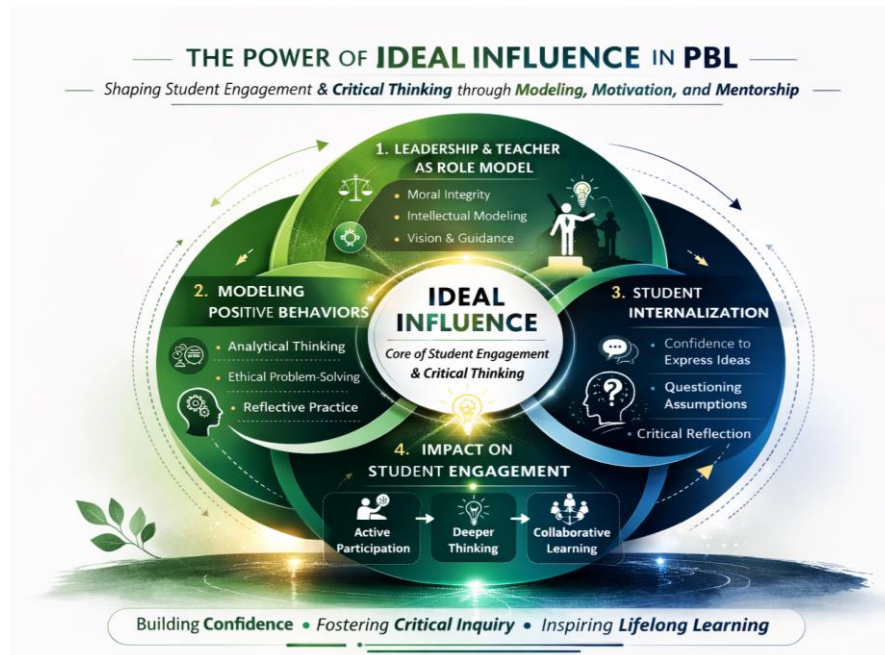
Overall, the findings indicate that PBL effectively enhanced learner engagement and critical thinking development in a pesantren based madrasah. Engagement emerged holistically across cognitive, affective, and psychomotor domains, while critical thinking developed through analytical, reflective, and ethical reasoning. A consistent pattern shows that when PBL is contextualized within pesantren values, it strengthens both academic learning and character formation. Students' active participation, confidence, and analytical abilities collectively illustrate the transformative potential of PBL in faith-based educational settings.

Ideal Influence in Problem-Based Learning

Table 2. Ideal Influence

Informant Position	Interview Excerpt	Indicator
Head of Madrasah	"Teachers must model discipline and critical inquiry for students."	Moral exemplarity
Teacher	"I guide students by showing how to analyze problems ethically."	Pedagogical modeling
Student	"We follow the teacher's example in discussing respectfully."	Internalization of values

The table demonstrates that ideal influence plays a central role in shaping students' engagement and critical thinking during PBL. Leadership and teachers functioned as moral and intellectual role models, exemplifying disciplined inquiry and ethical reasoning. This modeling encouraged students to internalize positive learning behaviors and reflective thinking patterns. Teachers' consistent demonstration of analytical and ethical problem-solving reinforced students' confidence in expressing ideas and questioning assumptions.



Picture 1. The Power of Ideal Influence in PBL

Furthermore, students' acknowledgment of teachers' exemplary behavior indicates that ideal influence operates as a cultural mechanism within the pesantren based madrasah. Through daily interactions and instructional practices, values are transmitted implicitly, strengthening the effectiveness of PBL. The pattern suggests that ideal influence enhances PBL by aligning pedagogical innovation with institutional values, resulting in a cohesive and meaningful learning experience.

DISCUSSION

The findings of this study corroborate a substantial body of literature asserting that Problem Based Learning (PBL) enhances learner engagement and critical thinking development (Arsyad et al., 2024; Nemakhavhani, 2024). Consistent with prior studies, the results demonstrate increased cognitive, affective, and psychomotor

engagement as students actively analyzed problems, collaborated with peers, and articulated solutions. However, this study extends existing research by situating these outcomes within a pesantren based madrasah context, where engagement is not only cognitive but also value oriented. Unlike studies conducted in secular settings, learner engagement in this context is intertwined with moral responsibility, discipline, and collective ethics, suggesting that PBL operates differently when embedded in faith-based educational environments (Amirudin et al., 2025; Siagian, 2025).

The development of critical thinking observed in this study aligns with research emphasizing PBL's capacity to foster higher-order thinking skills such as analysis, evaluation, and reflective judgment (Loyens et al., 2023; Siregar et al., 2025). Students demonstrated the ability to question assumptions, justify arguments, and connect learning to real life contexts. Nevertheless, a distinctive contribution of this study lies in showing that critical thinking within a pesantren based madrasah is framed as both intellectual and ethical reasoning. This finding diverges from much of the existing literature that conceptualizes critical thinking primarily as a cognitive process, highlighting the importance of cultural and institutional contexts in shaping how critical thinking is enacted and understood (Bavlı & Özdemir, 2025; Liyanage et al., 2021).

Another significant finding relates to the role of ideal influence, where teachers and school leaders functioned as moral and pedagogical role models during PBL implementation (Hallinger & Bridges, 2017; Siahaan et al., 2023). This supports leadership and instructional theories emphasizing modeling as a mechanism for value transmission and behavioral internalization (Ahn et al., 2020; Kwan, 2020). In contrast to studies that treat PBL as a technique independent of teacher character, this research demonstrates that ideal influence strengthens PBL effectiveness by fostering trust, respect, and disciplined inquiry (Sam, 2024; Wu et al., 2025). The pesantren context amplifies this effect, as students are culturally predisposed to emulate authoritative yet ethical figures, reinforcing both engagement and critical thinking through example rather than instruction alone (Bisri et al., 2026).

Theoretically, this study contributes to the discourse on PBL by integrating learner engagement theory, critical thinking frameworks, and value-based education.

It suggests that PBL should be understood not merely as a pedagogical strategy but as a culturally responsive learning model that interacts with institutional values (Siswanto et al., 2025). Practically, the findings imply that educators in pesantren based madrasahs should design PBL activities that explicitly integrate moral reflection and collaborative ethics (Syafii, 2025). Teachers are encouraged to adopt facilitative roles while simultaneously modeling disciplined inquiry and ethical reasoning.

Overall, this study highlights that the effectiveness of PBL is contingent upon contextual adaptation and pedagogical coherence. The consistent pattern across data sources indicates that when PBL is aligned with pesantren values and reinforced through ideal influence, it produces holistic learning outcomes encompassing engagement, critical thinking, and character formation. These findings underscore the need for future research to further explore context-sensitive implementations of PBL across diverse educational traditions and cultural settings.

CONCLUSION

The most significant finding of this study is that Problem-Based Learning, when contextually adapted to a pesantren based madrasah, effectively enhances learner engagement and critical thinking development in a holistic manner. Engagement emerged across cognitive, affective, and psychomotor dimensions, while critical thinking developed through analytical, reflective, and ethical reasoning. A key lesson derived from this research is that pedagogical innovation does not diminish religious and moral traditions; rather, when aligned with pesantren values and reinforced through teachers' ideal influence, PBL strengthens both academic learning and character formation. This finding highlights the importance of contextual sensitivity in implementing learner-centered pedagogies within faith-based educational institutions.

The primary strength of this study lies in its contribution to educational scholarship by integrating Problem Based Learning theory with learner engagement, critical thinking, and value-based education within a pesantren context. By employing a qualitative case study approach, this research offers in-depth insights into pedagogical processes, classroom dynamics, and value integration that are often

overlooked in quantitatively driven studies. The study extends existing PBL literature by demonstrating how cultural and institutional values shape learning processes and outcomes, thereby advancing a more nuanced and context-responsive understanding of innovative pedagogy in Islamic education.

Despite its contributions, this study has several limitations that should be acknowledged. As a single case study conducted in one pesantren based madrasah, the findings are context-specific and may not be generalizable to other educational settings. Additionally, the study relied primarily on qualitative data, which may be influenced by participants' subjective perspectives. Future research is encouraged to employ comparative or multi-site designs across different pesantren and educational levels, as well as mixed-methods approaches, to further examine the transferability and long-term impact of Problem Based Learning on learner engagement and critical thinking development.

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REFERENCES

- Ahn, J. N., Hu, D., & Vega, M. (2020). "Do as I do, not as I say": Using social learning theory to unpack the impact of role models on students' outcomes in education. *Social and Personality Psychology Compass*, 14(2), e12517. <https://doi.org/10.1111/spc3.12517>Digital Object Identifier (DOI)
- AlAfnan, M. A. (2025). Enhancing educational outcomes using AlAfnan taxonomy: integrating cognitive, affective, and psychomotor domains. *International Journal of Evaluation and Research in Education*, 14(3), 2419–2437.
- Almulla, M. A. (2020). The effectiveness of the project-based learning (PBL) approach as a way to engage students in learning. *Sage Open*, 10(3), 2158244020938702. <https://doi.org/10.1177/2158244020938702>
- Amirudin, A., Muzaki, I. A., & Nurhayati, S. (2025). Problem-Based Learning as a Pedagogical Innovation for Transforming Higher Education Students' Islamic

- Religious Comprehension. *Educational Process: International Journal*, 18, e2025412. <https://doi.org/10.22521/edupij.2025.18.412>
- Arsyad, M., Guna, S., & Barus, S. (2024). Enhancing chemistry education through problem-based learning: Analyzing student engagement, motivation, and critical thinking. *International Journal of Curriculum Development, Teaching and Learning Innovation*, 2(3), 110–117. <https://doi.org/10.35335/curriculum.v2i3.178>
- Azaim, M., & Latif, Abdul, M. zaironi. (2025). Evaluasi Kurikulum Sebagai Pendorong Kompetensi Siswa : Menggabungkan Metode Kualitatif Dan Kuantitatif Untuk Hasil Yang Holistik. *Khidmah: Jurnal Ilmiah Pengabdian Kepada Masyarakat*, 3(2). <https://doi.org/10.35132/khidmah.v3i1.1472>
- Azizah, F., Hikmah, I. N., & Zaironi, M. (2026). Analisis Efektifitas Penerapan Model Pembelajaran PAI Berbasis Masalah (PBL) dengan Mengembangkan Aspek Kognitif , Afektif dan Psikomotorik di SDN Sukun 3 Kota Malang. *Al-Zayn: Jurnal Ilmu Sosial & Hukum*, 4, 4353–4361. <https://doi.org/10.61104/alz.v4i1.3288> Analisis
- Bavlı, B., & Özdemir, K. (2025). The conceptualization and enactment of critical thinking across diverse curricula in higher education. *Thinking Skills and Creativity*, 58, 101914. <https://doi.org/10.1016/j.tsc.2025.101914>
- Bisri, A. M., Suari, D., Ghofur, A., & Zaironi, M. (2026). Model Model Kurikulum Dalam Pengembangan Pendidikan Agama Islam Subjek Akademik , Humanistik Dan Rekontruksi Sosial. *Al-Zayn: Jurnal Ilmu Sosial & Hukum*, 4, 1830–1835. <https://doi.org/10.61104/alz.v4i1.2939>
- Fakhridana, F. M., Azizah, S. N., Annisa, A., & Zaironi, M. (2026). Integrasi Artificial Intelligence dalam Pembelajaran Pendidikan Agama Islam untuk Meningkatkan Literasi Anak Sekolah Dasar. *Jurnal Alwatzikhoebillah: Kajian Islam, Pendidikan, Ekonomi, Humaniora*, 12(1), 208–220.
- Gammelgaard, B. (2017). The qualitative case study. In *The International Journal of Logistics Management* (Vol. 28, Issue 4, pp. 910–913). Emerald Publishing Limited. <https://doi.org/10.1108/IJLM-09-2017-0231>
- Hallinger, P., & Bridges, E. M. (2017). A systematic review of research on the use of problem-based learning in the preparation and development of school leaders. *Educational Administration Quarterly*, 53(2), 255–288. <https://doi.org/10.1177/0013161X16659347>
- Hikmah, A. A., Umaroh, S., Zaironi, M., & Malang, U. A. (2026). Tradisi Kurikulum. *Jurnal Edukasi Dan Literasi Pendidikan*, 7(1), 35–39.
- Hsbollah, H. M., & Hassan, H. (2022). Creating meaningful learning experiences with active, fun, and technology elements in the problem-based learning approach and its implications. *Malaysian Journal of Learning and Instruction (MJLI)*, 19(1), 147–181. <https://doi.org/10.32890/mjli2022.19.1.6>
- Ishmah Syafiulloh, Aisyah Nindi Antika, M. Z. (2026). Pengembangan Materi Pembelajaran Pendidikan Agama Islam Berbasis Budaya Lokal di Indonesia (Urgensi dan Tantangannya) Ishmah. *Al-Zayn: Jurnal Ilmu Sosial & Hukum*, 4(1), 917–930. <https://doi.org/10.61104/alz.v4i1.3182>
- Khan, N. I. (2019). Case study as a method of qualitative research. In *Qualitative techniques for workplace data analysis* (pp. 170–196). IGI Global Scientific

- Publishing. <https://doi.org/DOI: 10.4018/978-1-5225-5366-3.ch008>
- Kwan, P. (2020). Is transformational leadership theory passé? Revisiting the integrative effect of instructional leadership and transformational leadership on student outcomes. *Educational Administration Quarterly*, 56(2), 321–349. <https://doi.org/10.1177/0013161X19861137>
- Lailatul Mufarrohah, M. (2026). Evaluasi Penerapan Model Pembelajaran Pai Untuk Penguatan Karakter Kompetensi Peserta Didik Di Tk Sunan Ampel Pgri 2 Putukrejo. *Al-Zayn: Jurnal Ilmu Sosial & Hukum*, 4, 6363–6376. <https://doi.org/10.61104/alz.v4i1.4106>
- Lailatur Rohanita, Husnul Hilar, M. Z. (2026). Analisis Efektivitas Model Pembelajaran Pai Berbasis Teknologi Terhadap Pengembangan Holistik Anak Usia Dini Di Tk Mnu 16 Mayor Damar Turen. *As-Sabiqun: Jurnal Pendidikan Islam Anak Usia Dini*, 8, 23–45. <https://doi.org/10.36088/assabiqun.v8i1.5976>
ANALISIS
- Liyanage, I., Walker, T., & Shokouhi, H. (2021). Are we thinking critically about critical thinking? Uncovering uncertainties in internationalised higher education. *Thinking Skills and Creativity*, 39, 100762. <https://doi.org/10.1016/j.tsc.2020.100762>
- Loyens, S. M. M., Van Meerten, J. E., Schaap, L., & Wijnia, L. (2023). Situating higher-order, critical, and critical-analytic thinking in problem-and project-based learning environments: A systematic review. *Educational Psychology Review*, 35(2), 39. <https://doi.org/10.1007/s10648-023-09757-x>
- Maqfiroh, F., Sumarni, Y., Zaironi, M., Malang, U. A., & Pendidikan, I. K. (2025). Integrasi Manajemen Kurikulum Berbasis Pesantren. *Jurnal Pendidikan Integratif*, 6(4), 181–190.
- Monaro, S., Gullick, J., & West, S. (2022). Qualitative data analysis for health research: A step-by-step example of phenomenological interpretation. *Qualitative Report*, 27(4), 1040–1057. <https://doi.org/10.46743/2160-3715/2022.5249>
- Muzedi, Hesim, M. (2026). Integrasi Nilai-Nilai Islam Dalam Praktik Sehari-hari di Pondok Pesantren Raudlatul Ulum 1 Studi Etnografi. *Al-Zayn: Jurnal Ilmu Sosial & Hukum*, 4, 3249–3260. <https://doi.org/10.61104/alz.v4i1.2939>
- Neale, J. (2016). Iterative categorization (IC): a systematic technique for analysing qualitative data. *Addiction*, 111(6), 1096–1106. <https://doi.org/10.1111/add.13314>
- Nemakhavhani, R. B. (2024). Enhancing student engagement through problem-based learning: A case of the built environment. *International Conference on Education Research*, 1(1), 238–245.
- Rahmania, A. I., Kurnia, F. A., & Zaironi, M. (2026). Teori Humanistik Dan Aplikasinya Dalam Pembelajaran PAI di MI Biba ' afadlrah Turen Malang. *Al-Zayn: Jurnal Ilmu Sosial & Hukum*, 4, 638–646. <https://doi.org/10.61104/alz.v4i1.3163>
- Richards, K. A. R., & Hemphill, M. A. (2018). A practical guide to collaborative qualitative data analysis. *Journal of Teaching in Physical Education*, 37(2), 225–231. <https://doi.org/10.1123/jtpe.2017-0084>
- Sam, R. (2024). Systematic review of inquiry-based learning: assessing impact and best practices in education. *F1000Research*, 13, 1045.

- <https://doi.org/10.12688/f1000research.155367.1>
- Sarwadi, S., & Raihan, N. (2025). Reinforcing Islamic moral values through contemporary pesantren education: A pathway to character development. *Edukasi Islami: Jurnal Pendidikan Islam*, 14(04).
<https://doi.org/10.30868/ei.v14i04.9041>
- Siagian, B. A. (2025). The Influence of the Inquiry Based Learning Model on Learning Motivation in Christian Religious Education and Character Development. *International Transformative Education and Humanities Journal*, 1(1), 147–155.
- Siahaan, A., Aswaruddin, A., Maulidayan, M., Zaki, A., Sari, N., & Rahman, A. A. (2023). Principal leadership ethics as a role model in high school. *Al-Ishlah: Jurnal Pendidikan*, 15(3), 2834–2845.
<https://doi.org/10.35445/alishlah.v15i3.1563>
- Siregar, T., Yerizon, Y., & Fauzan, A. (2025). Problem-Based Learning (PBL) Strategy in Enhancing Students' Critical Thinking Skills. *Yerizon and Fauzan, Ahmad, Problem-Based Learning (PBL) Strategy in Enhancing Students' Critical Thinking Skills (November 08, 2025)*.
- Siswanto, D. H., Kuswantara, H., & Wahyuni, N. (2025). Implementation of problem based learning approach culturally responsive teaching to enhance engagement and learning outcomes in algebraic function limit material. *EDUCATUM Journal of Science, Mathematics and Technology*, 12(1), 80–88.
<https://doi.org/10.37134/ejsmt.vol12.1.9.2025>
- Sofi, M. J., Manaf, S., & Ali, J. (2025). PESANTREN IN DYNAMIC TRANSFORMATION: Harmonizing Classical Roots and Modern Practices. *MIQOT: Jurnal Ilmu-Ilmu Keislaman*, 49(2), 333–353.
<http://dx.doi.org/10.30821/miqot.v50i1.1566>
- Subairi, Muhammad Husni, M. (2025). The Internalization Mechanisms Of Religious Moderation Values In Islamic Boarding School. *SCAFFOLDING: Jurnal Pendidikan Islam Dan Multikulturalisme*, 7(3), 206–219.
<https://doi.org/10.37680/scaffolding.v7i3.7937>
- Syafii, M. (2025). The Application of the Problem-Based Learning Model to Improve Learning Outcomes in Islamic Education and Character Building. *Jurnal Keprofesian Guru Keagamaan*, 3(2), 79–91.
<https://doi.org/10.15575/jkgk.v3i2.652>
- Tohani, E., & Aulia, I. (2022). Effects of 21st century learning on the development of critical thinking, creativity, communication, and collaboration skills. *Journal of Nonformal Education*, 8(1), 46–53. <https://doi.org/10.15294/jne.v8i1.33334>
- Wu, Y., Lu, X., & Lin, C. (2025). Bridging disciplines: Enhancing integrative thinking via collaborative problem-based learning in higher education. *Thinking Skills and Creativity*, 101939. <https://doi.org/10.1016/j.tsc.2025.101939>
- Xu, X., Shi, Z., Bos, N. A., & Wu, H. (2023). Student engagement and learning outcomes: an empirical study applying a four-dimensional framework. *Medical Education Online*, 28(1), 2268347.
<https://doi.org/10.1080/10872981.2023.2268347>
- Yu, L., & Zin, Z. M. (2023). The critical thinking-oriented adaptations of problem-based learning models: a systematic review. *Frontiers in Education*, 8, 1139987.
<https://doi.org/10.3389/educ.2023.1139987>

- Zaironi, M. (2026). Inquiry-Based Learning as an Alternative Instructional Strategy to Enhance Students ' Learning Outcomes : A Case Study in Indonesian Islamic Education. *IEDJ : Islamic Educational Development Journal*, 01(01), 36-56.
- Zuyyina Linda Sari, Kudsiyeh, Sholi Asrori, M. (2026). Model Kurikulum Sistematis Dan Radikal. *Kreatif: Jurnal Pemikiran Pendidikan Agama Islam*, 24, 204-214. <https://doi.org/10.52266/kreatif.v24i1.5801>