



BEYOND MEMORIZATION: TRANSFORMING ISLAMIC RELIGIOUS EDUCATION THROUGH DEEP LEARNING IN INDONESIAN BORDER-AREA SCHOOLS

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Abstract: This study aims to examine how a deep learning approach transforms Islamic Religious Education beyond memorization toward meaningful understanding and value internalization in Indonesian border-area schools. Using a qualitative case study design, data were collected through classroom observations, in-depth interviews with teachers, school leaders, and students, and analysis of instructional documents. The data were analyzed thematically to identify patterns of pedagogical change and value formation. The findings reveal that deep learning shifts Islamic Religious Education from surface-level content transmission to reflective, contextual, and dialogical meaning-making. Teachers' roles evolve from knowledge transmitters to facilitators of inquiry and reflection, while students demonstrate greater engagement, critical thinking, and a deeper connection to Islamic values. The integration of students' lived religious experiences strengthens the internalization of moral and spiritual values. The study implies that deep learning provides a transformative pedagogical framework for Islamic Religious Education, particularly in culturally diverse and peripheral contexts. It contributes to the theoretical expansion of deep learning discourse into faith-based education and offers practical guidance for developing reflective, student-centred Islamic Religious Education instruction.

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INTRODUCTION

Islamic Religious Education is normatively positioned as a central subject for cultivating students' moral character, spiritual awareness, and ethical responsibility; however, this ideal often contrasts with classroom realities. The critical issue lies in the gap between the transformative goals of religious education and the persistence of rote-based instruction. In many contexts, Islamic Religious Education remains dominated by memorization, textual repetition, and teacher-centred explanation, limiting students' opportunities for interpretation and reflection (Hacıeminoğlu & Yıldız, 2022; Moulin-Stozek & Metcalfe, 2026). From the perspective of twenty-first-century competencies, such practices are misaligned with expectations for critical thinking, collaboration, and learner autonomy (Alharbi, 2024; Maulani et al., 2025). When learning emphasizes correct answers rather than meaning-making, students tend to engage superficially rather than internalize values. Consequently, a significant theoretical and practical gap emerges between the intended character-building function of Islamic Religious Education and its actual pedagogical enactment in schools.

This gap becomes more complex in marginal and border-area contexts, where structural and sociocultural constraints influence educational practice. Theoretically, religious education should respond to students' lived realities; yet in border regions such as Sebatik, schools face infrastructure limitations, uneven teacher distribution, and weak institutional coordination (Linando et al., 2025; Ramadhan et al., 2024). Border communities are also shaped by mobility, economic vulnerability, and cross-border interaction, factors that affect identity formation and learning experiences (Luz et al., 2026; Olakpe, 2025). These conditions create additional pressure on teachers to deliver curriculum content efficiently, often reinforcing conventional, transmission-oriented approaches. As a result, the social complexity of border settings intensifies the discrepancy between the transformative aspirations of Islamic Religious Education and the constrained pedagogical practices that dominate everyday classrooms.

Previous research in religious and general education consistently shows that excessive reliance on memorization fosters surface learning rather than deep understanding. Students engaged primarily in recall-based tasks tend to focus on short-term assessment performance instead of conceptual integration (Khong & Tanner, 2024; Xu et al., 2024). Empirical findings also indicate that students' perceptions of religious character education do not always translate into internalized values or behavioural change (Siswantara & Supriyadi, 2024; Yalvaç Arıç, 2025). Furthermore, teacher-centred practices remain prevalent, limiting dialogical interaction and reflective inquiry. Studies on deep learning demonstrate that reflective discussion, problem-based tasks, and meaning-making processes enhance conceptual comprehension and sustained engagement. These findings suggest the potential relevance of deep learning for Islamic Religious Education, yet they also reveal that its application in Islamic Religious Education remains underexplored.

Although the discourse on deep learning has expanded across disciplines, research specifically addressing its pedagogical integration in Islamic Religious Education classrooms is still limited. Mapping studies indicate that investigations of deep learning within Islamic education remain relatively scarce, particularly at the classroom implementation level (Elihami et al., 2024; Hidayani et al., 2025). Teacher readiness varies across professional competence, access to training, and policy support, often constraining innovation (Fitrah et al., 2025; Weng et al., 2023). Additionally, conceptual ambiguity persists, as deep learning is sometimes conflated with artificial intelligence rather than understood as a pedagogical orientation. While Indonesian studies report positive impacts of deep learning models on critical thinking, they largely focus on general subjects (Nurhasanah et al., 2025; Wang et al., 2024). Therefore, empirical examination of deep learning within Islamic Religious Education, particularly in border contexts, remains an evident research gap.

Based on these gaps, this study seeks to answer the following question: How is deep learning understood and implemented in Islamic Religious Education classrooms in border-area schools, and how does it contribute to pedagogical transformation and the internalization of Islamic values? This question arises from the tension between normative educational ideals and contextual realities. By focusing on classroom practices, teacher roles, and students' learning experiences, the study aims to explore how deep learning principles are translated into instructional design and daily interaction. The border-area context provides a distinctive setting where structural limitations and sociocultural dynamics intersect with religious education. Investigating this context allows for a deeper understanding of how pedagogical transformation may occur beyond resource-rich environments. Thus, the study positions itself at the intersection of curriculum reform, character education, and contextualized pedagogy.

This study argues that deep learning can function as a transformative pedagogical framework for Islamic Religious Education in border-area schools. It is hypothesized that when teachers adopt reflective, dialogical, and contextual strategies, Islamic Religious Education learning shifts from surface-level transmission to meaningful engagement. Such transformation is expected to reposition teachers as facilitators of inquiry and students as active constructors of religious meaning. By integrating students' lived experiences into learning processes, Islamic values are more likely to be internalized rather than merely memorized. Although contextual constraints may shape implementation strategies, the core principles of deep learning are assumed to be adaptable across diverse school environments. Therefore, the study tests the proposition that a pedagogical reorientation toward deep learning can bridge the gap between Islamic Religious Education's moral aspirations and their practical realization in complex educational settings.

RESEARCH METHOD

This study focuses on the transformation of Islamic Religious Education learning through a deep learning approach as the unit of analysis (material object). The research examines classroom practices, teacher–student interactions, instructional designs, and school policies as they occur in two Islamic secondary schools in a border-area context: Junior High School Mutiara Bangsa and MTs YIIPS Sebatik. These institutions were purposively selected because they represent Islamic schools operating within distinctive social challenges and limited resource conditions, making them relevant cases for exploring contextual and reflective Islamic Religious Education practices. The cases include not only formal learning activities but also related artefacts such as lesson plans, curriculum documents, and school programs that reflect the implementation of deep learning in everyday educational settings.

This research employs a qualitative case study design to gain an in-depth, holistic understanding of contemporary educational phenomena in their real-life contexts. A case study is appropriate when the boundaries between instructional practices and institutional environments are not clearly separable (Cole, 2024; Fragkandreas, 2025). The design aligns with exploratory and interpretive research objectives, as emphasized in qualitative inquiry frameworks (Takona, 2024; Tisdell et al., 2025). In educational research, case studies offer methodological flexibility to capture classroom dynamics, teacher roles, and the policies that shape pedagogical transformation. Thus, the qualitative case study design ensures contextual sensitivity and analytical depth in examining deep learning within Islamic Religious Education.

Sources of information include Islamic Religious Education teachers, school leaders, and selected students, chosen through purposive sampling to obtain rich, meaningful data (Su et al., 2024). Additional sources include institutional texts and documents, such as lesson plans, curriculum guidelines, and school policy documents, which serve as supporting textual data. Data were collected through classroom observations, in-depth semi-structured interviews guided by interview protocols, and document analysis to enable methodological triangulation (Gunbayi, 2024; Noble & Smith, 2025). The research also included a limited desk review of relevant institutional records to contextualize the findings. All procedures adhered to the ethical principles of educational research by securing institutional approval and obtaining informed consent from participants (Takona, 2024; Tisdell et al., 2025).

Data analysis was conducted using thematic analysis. The analytical stages included data reduction through initial coding of interview transcripts and field notes, data display in the form of categorized matrices and thematic groupings, and conclusion drawing with continuous verification to ensure credibility. Recurring patterns in teacher strategies, student engagement, and value internalization/internalisation were identified and organized/organised into broader interpretive themes. The method combines content analysis and

interpretive analysis to connect empirical findings with the conceptual framework of deep learning while maintaining sensitivity to the specific educational and socio-cultural context of the research sites.

RESULT AND DISCUSSION

Result

Learning Practices Before the Implementation of the Deep Learning Approach Teacher-Centered Learning Patterns

The findings show that Islamic Religious Education in remote areas emphasizes student engagement, dialogue, and reflection rather than simple content delivery. Teachers design activities that encourage students to relate religious concepts to their daily experiences and moral situations. These practices reveal consistent links between instructional design, active participation, and reflective understanding. To situate these findings within a broader theoretical framework, Figure 2 presents an integrated model connecting the empirical results with deep learning theory in the context of Islamic Religious Education.

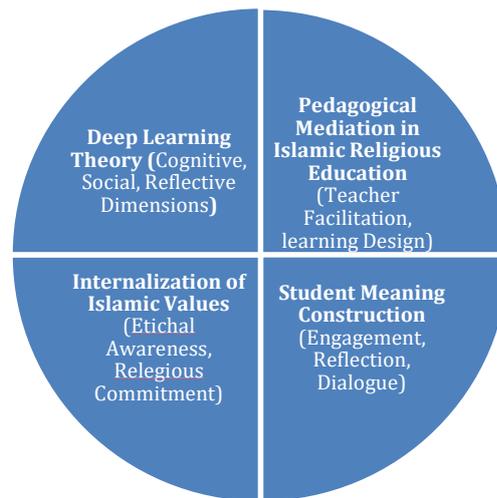


Figure 1. Integration of Empirical Findings and Deep Learning Theory in Islamic Religious Education

As illustrated in Figure 1, the findings align with the core dimensions of deep learning theory – cognitive, social, and reflective processes. Observed pedagogical practices in Islamic Religious Education classrooms demonstrate how these dimensions can operate in remote contexts to shape student engagement and support the internalization of Islamic values. This indicates that deep learning functions not only as a conceptual framework but also as a practical pedagogical orientation in Islamic Religious Education.

Classroom observations across six Islamic Religious Education sessions in both institutions show that the learning process was largely controlled by teachers. Teachers typically delivered material verbally while students followed textbooks

or copied notes, indicating one-way knowledge transmission (Observation, 2025a). In one session, a teacher explained the concept of faith for about thirty minutes with minimal interaction, limited to short confirmation questions without deeper discussion. This pattern suggests that learning did not promote higher-order thinking or connections to students' experiences (Observation, 2025a).

Document analysis supports these findings, showing that lesson plans focused mainly on teacher actions such as explaining material and assigning exercises, while student activities were limited to listening and answering questions. The consistency between lesson design and classroom practice indicates that teacher-centered learning had become institutionalized.

Table 1. Interview Evidence

Participant	Interview Excerpt	Indicator
Al-Fikry (Student)	"Most of the time we just listen to the teacher's explanation. There is rarely discussion or sharing opinions."	Limited student participation and passive learning culture
Jamilah (Student)	"Islamic Religious Education lessons usually consist of teacher explanations and then writing answers from the book."	Dominance of teacher explanation and note-taking activities

Emphasis on Cognitive Achievement Rather than Reflection

Research data show that Islamic Religious Education learning before the deep learning intervention emphasized cognitive achievement more than reflective and affective dimensions. Assessment documents indicate that evaluation relied heavily on multiple-choice and short-answer tests measuring memorization and factual recall (Documents, 2025a). Exam items focused on recalling basic concepts rather than applying Islamic values in real-life contexts, suggesting that assessment practices were shaped by both pedagogical considerations and administrative requirements.

This cognitive-oriented evaluation also influenced students' views of Islamic Religious Education learning, which tended to be exam-focused rather than oriented toward value internalization. Classroom observations show that reflective questioning was rarely used, and teachers often corrected answers without encouraging discussion, reinforcing surface learning where success was measured by answer accuracy rather than deep meaning-making (Observation, 2025b, 2025c). Overall, the strong emphasis on cognitive achievement reduced Islamic Religious Education learning to memorization rather than reflective life guidance.

Table 2. Interview Evidence

Participant	Interview Excerpt	Indicator
Sunarwati (Teacher)	"Assessment usually uses written tests because they are easier to measure and fit school requirements."	Assessment driven by administrative demands and measurable outcomes
Hafis (Student)	"If it does not appear in the exam, we usually do not focus much on studying it."	Instrumental learning orientation and exam-focused motivation

Implementation of the Deep Learning Approach in Islamic Religious Education Learning

Redesign of Learning Objectives and Activities

The implementation of deep learning brought significant changes to learning objectives and activity design. Revised lesson plans show more holistic objectives that include affective and reflective dimensions, indicating a shift from content delivery toward meaning and value formation (Documents, 2025b). Classroom observations also recorded new activities aligned with deep learning, such as small-group discussions, case analysis, and moral dilemma scenarios based on students' daily experiences, including discussions on responsible social media use. These activities encouraged critical and reflective thinking and increased student engagement.

“Before, I focused on finishing the syllabus. Now, I focus more on whether students really understand the values behind the material” (Hikmah, 2025).

During discussions, students became more active in expressing opinions and relating learning to personal and social contexts rather than repeating textbook answers. Overall, the redesign of objectives and activities shows that deep learning not only changed teaching methods but also shifted Islamic Religious Education toward deeper and more contextual value meaning-making.

Contextual and Reflective Learning Strategies

The implementation of deep learning in Islamic Religious Education was reflected in the use of contextual and reflective strategies, where reflection became an integral part of instruction. Teachers regularly asked students to connect lesson content with personal experiences in family, school, and community contexts. For example, students wrote short reflections on practicing honesty at home and school, encouraging them to evaluate their own behavior and link Islamic teachings with real-life situations.

These strategies increased the relevance of Islamic Religious Education learning and strengthened students' moral reasoning and self-awareness, as shown in reflection journals (Documents, 2025d). Students explained the reasons, challenges, and consequences of their moral choices, indicating deeper and more reflective thinking. Overall, contextual and reflective strategies shifted Islamic Religious Education from information mastery toward value internalization and meaningful personal understanding.

Table 3. Internal Factors Affecting the Transformation of Islamic Religious Education Learning

Focus	Findings in Schools	Findings in Madrasahs	Analysis / Explanation
Teacher Competence	Teachers have good understanding of Islamic Religious Education content and teaching strategies, but their skills in using technology vary	Teachers are competent in religious content knowledge, but the use of learning technology is relatively limited	Teacher competence directly influences the success of deep learning implementation; teachers who are more skilled in technology tend to be more flexible in designing learning activities

Teaching Strategies	Teachers use a combination of lectures, discussions, and projects, although some still rely mainly on lectures	More emphasis on discussions and activities based on spiritual values, but strategy variation is limited	Teaching strategies are adapted to the institution's characteristics; diverse strategies help increase student participation and engagement
Teacher Creativity	Teachers innovate through the use of digital learning media and collaborative projects	Teacher creativity is reflected in the integration of spiritual values and group activities	Teacher creativity promotes more meaningful learning experiences and supports optimal implementation of deep learning

Research findings show that internal factors—particularly teacher competence, strategies, and creativity—play a central role in transforming Islamic Religious Education through deep learning. Teacher competence, including subject knowledge, pedagogy, and technology use, strongly influences teaching quality. In schools, teachers generally demonstrate strong content and pedagogical mastery, although variations in technology skills lead to inconsistent digital learning implementation.

Table 4. External Factors Affecting the Transformation of Islamic Religious Education Learning

Focus	Findings in Schools	Findings in Madrasahs	Analysis / Explanation
Institutional Culture	The school environment emphasizes academic achievement and high discipline	Madrasah culture is strongly religious and emphasizes collaborative relationships among members	Institutional culture influences teacher-student interactions and shapes the character of teaching strategies applied
School/Madrasah Policy	Policies support digital learning innovation, although some administrative procedures limit teacher flexibility	Policies focus on strengthening religious activities and character development, with limited support for technology	Institutional policies can act as both enablers and barriers to Islamic Religious Education learning transformation
Learning Resources	Availability of digital media, textbooks, and laboratory facilities is relatively sufficient	Religious-based learning resources are available, but technology facilities are limited	Quality and availability of resources affect teachers' ability to implement deep learning effectively

Research shows that the effectiveness of deep learning in Islamic Religious Education is shaped by institutional culture, policy, and learning resources. In schools, a focus on academic achievement and discipline encourages structured and measurable strategies. In madrasahs, strong religious and collaborative cultures support contextual learning that emphasizes spiritual reflection, moral values, and character development

Table 5. Deep Learning Implementation by Islamic Religious Education Teachers

Focus	Findings in Schools	Findings in Madrasahs	Analysis / Explanation
Lesson Planning	Teachers design project-based lesson	Teachers plan learning activities that integrate spiritual	Careful lesson planning supports active student

Lesson Implementation	plans emphasizing problem-solving Learning is conducted through interactive discussions, case studies, and digital media	values and reflective exercises Learning focuses on value-based discussions, reflection, and religious story-based case studies	engagement and promotes deeper understanding Learning activities emphasize active participation, critical analysis, and integration of spiritual values
Lesson Evaluation	Evaluation combines written tests, projects, and presentations	Evaluation uses portfolios, student reflections, and teacher observations	Evaluation assesses not only cognitive skills but also affective and spiritual aspects, aligning with deep learning goals

Analysis of Islamic Religious Education learning using deep learning shows that teachers play a central role in the success of planning, implementation, and evaluation. In planning, school teachers design project-based lessons that encourage problem-solving and active participation, supporting not only content mastery but also critical and creative thinking skills. In madrasahs, teachers emphasize spiritual values and reflection to increase religious awareness, strengthen character, and develop students' reflective abilities.

Table 4. Students' Response to the Deep Learning Approach

Focus	Findings in Schools	Findings in Madrasahs	Analysis / Explanation
Student Engagement	Students actively participate in discussions, projects, and collaborative activities	Students actively participate in value discussions and group reflections	Student engagement tends to be high when learning activities are challenging and relevant to their life experiences
Understanding of Material	Students show improved understanding through project-based and discussion learning	Students improve understanding through reflection and integration of spiritual values	Deep learning encourages deeper understanding because students are actively and reflectively involved
Critical and Reflective Thinking	Students can analyze problems and present logical arguments	Students can evaluate values and learning experiences reflectively	Deep learning stimulates the development of critical, reflective, and evaluative thinking in students

Research shows that deep learning in Islamic Religious Education improves student engagement, understanding, and critical and reflective thinking. In schools, engagement appears through active participation in discussions, collaborative projects, and independent problem-solving. In madrasahs, it is seen in value discussions, group reflection, and case studies connected to religious experiences, highlighting the relevance of learning to daily life.

Integration of Students' Religious Experiences

The deep learning approach in Islamic Religious Education integrated students' religious experiences as learning resources. Teachers intentionally created space for students to share experiences related to worship, ethical dilemmas, and social interactions, using lived experiences as entry points to understand Islamic values. Classroom observations show that this practice created more active and participatory learning, with students becoming more focused, empathetic, and responsive to peers' stories (Observation, 2025e, 2025d).

"When students share their experiences, learning becomes more meaningful because they feel involved" (Majid, 2025).

Integrating religious experiences also helped students recognize diversity in practicing Islamic values and encouraged mutual respect and critical reflection. Overall, learning shifted from relying only on texts and doctrines to connecting Islamic teachings with real-life experiences, strengthening the social and affective dimensions of Islamic Religious Education (Observation, 2025e).

Transformation of Teacher and Student Roles

Teachers as Facilitators of Meaning

The deep learning approach transformed teachers' roles from information providers to facilitators of meaning-making. Observations show that teachers increasingly used open-ended questions to encourage students to think, argue, and reflect on their experiences, while allowing diverse perspectives without immediate judgment (Observation, 2025d, 2025e). Teachers also became active listeners who used follow-up questions to create dialogical and psychologically safe classroom environments.

"I am learning to guide students to find meaning, not to give answers directly" (Nurhalisa, 2025).

This shift reflects growing pedagogical awareness that meaningful learning lies in students' meaning-making processes. Overall, teachers maintained their authority while using it to guide students toward deeper and more reflective understanding, making facilitation a key element of deep learning implementation

Students as Active and Reflective Learners

The deep learning approach also transformed students into more active and reflective learners. Observations show increased student agency, with students asking questions, responding to peers, and engaging in collaborative discussions. Student portfolios and reflection journals further demonstrate deeper thinking and personal interpretation of Islamic values rather than simple repetition of textbook content (Documents, 2025c).

Peer interactions became more meaningful as students learned to listen, respect differences, and build shared understanding. Overall, deep learning fostered reflective learning communities and supported the development of

students who can critically and contextually reflect on Islamic values, marking an important pedagogical change in Islamic Religious Education learning.

Comparative Analysis between Junior High School Mutiara Bangsa and MTs YIIPS Sebatik

Similarities in Pedagogical Transformation

Comparative analysis shows that both schools experienced similar pedagogical transformations after implementing the deep learning approach. In both contexts, Islamic Religious Education learning was characterized by reflective questioning, contextual discussions, and experience-based tasks. These strategies were consistently applied to promote student engagement and meaning-making.

Teachers in both schools reported similar challenges, especially in the early stages of implementation, such as adjusting to new facilitative roles and managing more dialogical classrooms. Over time, teachers recognized the benefits of improved learning interactions. Students in both schools showed increased participation, confidence, and reflective ability. These similarities indicate that the deep learning approach has strong adaptive potential across educational contexts, provided it is supported by teacher commitment and appropriate learning design.

Differences and Institutional Influence

Institutional contexts influenced the implementation of deep learning in different ways. MTs YIIPS Sebatik benefited from a strong religious culture integrated into daily school life, making it easier to connect learning with students' lived experiences. In contrast, Junior High School Mutiara Bangsa required more structured lesson planning to ensure that contextual and reflective learning remained relevant to students' experiences.

“At MTs, religious practices are part of daily life, so it is easier to connect learning with everyday activities” (Nurhalisa, 2025).

Despite these differences, deep learning remained effective in improving student engagement and understanding. The findings highlight the flexibility of the approach, showing that with appropriate planning it can be adapted to different institutional cultures and support more meaningful and reflective Islamic Religious Education learning.



Figure 2. Cyclical Model of Deep Learning and Islamic Value Internalization in Islamic Religious Education

The findings show that Islamic Religious Education in remote areas is shaped not only by instructional content but also by the depth of student engagement and reflection. Learning activities that integrate cognitive, social, and reflective dimensions encourage active participation, dialogue, and reflection on moral meanings in daily life. These results indicate a clear relationship between pedagogical design, student engagement, and the internalization of Islamic values, as summarized in Figure 2.

Discussion

Interpretation of Findings Through Deep Learning Theory

The findings indicate that the implementation of deep learning in Islamic Religious Education shifts learning from passive content reception toward active meaning-making. Students construct understanding through interaction, dialogue, and reflection, aligning with the Community of Inquiry framework that integrates cognitive, social, and teaching presence. This pattern is consistent with research emphasizing sustained conceptual understanding and contextual knowledge integration (De Silva et al., 2025; Weng et al., 2023). Deep learning enhances critical and reflective thinking, enabling students to analyze information, evaluate perspectives, and connect religious teachings with lived realities (Amirudin et al., 2025; Papakostas, 2025). Consequently, learning moves beyond cognitive mastery toward affective growth and character formation, strengthening the integration of religious values into daily life.

Furthermore, learning designs that incorporate exploration, discussion, and problem-solving encourage deeper engagement. This aligns with design-based learning principles that position students as active agents in authentic knowledge construction (De Silva et al., 2025; Weng et al., 2023). Self-directed learning also reinforces autonomy and responsibility when teachers act as facilitators rather than sole knowledge sources. Reflection emerges as central, particularly when

students relate Islamic teachings to personal and social contexts. Technology and generative AI can support reflective dialogue when focused on reasoning processes rather than instant answers (Bago & Bonnefon, 2024; Jiang & Jiang, 2024). Overall, deep learning contributes to cognitive, social, and emotional competencies, including critical thinking and collaboration, supported by teacher readiness and policy environments (Andayanie et al., 2025; Baihaqi et al., 2025; Nafi'ah & Faruq, 2025; Sari et al., 2025).

Implications for Islamic Value Internalization

The findings suggest that deep learning broadens opportunities for sustained Islamic value internalization. Reflective and dialogical learning allows values to move beyond cognition into affective and social domains, fostering interpersonal intelligence and moral awareness (Anwar, 2023; Djuaini, 2025). Value internalization becomes stronger when integrated into school culture and daily religious practices. Rather than relying solely on formalistic instruction, students engage in meaningful interpretation of values within authentic contexts. Experience-based and extracurricular activities further reinforce this process by connecting religious principles with real-life social environments (Khoiriyah & Salim, 2024; Saepurahman et al., 2025).

Deep learning also supports character formation aligned with national and Islamic values. The integration of Islamic teachings with Pancasila principles strengthens civic responsibility and religious moderation. Reflective learning fosters inclusive and balanced religious attitudes, reinforcing wasatiah values within diverse contexts. While habituation and school culture remain essential (Djuaini, 2025; Gúzman & Larrain, 2024), this study demonstrates that internalization becomes deeper when supported by dialogical and reflective pedagogy. Thus, deep learning serves as a conceptual bridge connecting transformative pedagogy with Islamic value-based education (Alabdulhadi & Alkandari, 2024; Amirudin et al., 2025).

Comparison with Previous Studies

The findings are consistent with prior research positioning deep learning as a framework for meaningful and reflective understanding (Yi, 2025; Rui, 2024). Similar to studies in mathematics and social sciences, active engagement fosters mindful and meaningful learning experiences (Feriyanto & Anjariyah, 2024; Siregar et al., 2025). However, this study extends deep learning into religious education, where meaningfulness includes value internalization and behavioral transformation. It confirms that deep learning principles are adaptable across subject domains, including value-based disciplines.

Moreover, the study aligns with research emphasizing learner autonomy as a prerequisite for sustainable deep learning. Students' reflective engagement in Islamic Religious Education demonstrates that deep learning does not depend solely on advanced technology but on pedagogical design that supports autonomy and personal meaning-making. Compared to civic education studies highlighting reflective capacity (Rosyad & Adalakun, 2025; Rui et al., 2024), this

research contributes a distinct spiritual dimension. It complements literature on habituation and school culture in Islamic education (Djuaini, 2025; Hidayah et al., 2025), showing that value internalization is strengthened when reflective dialogue accompanies institutional practices.

CONCLUSION

This study highlights that the most important finding lies in the pedagogical shift from content transmission to reflective value meaning-making in Islamic Religious Education. The research demonstrates that learning depth is not determined by the amount of material delivered, but by the quality of student engagement in connecting Islamic teachings with lived experiences through dialogue and reflection. In contexts marked by social and institutional limitations, deep learning proves adaptable and transformative, enabling students to internalize values more consciously and contextually. The key lesson from this study is that meaningful religious education emerges when teachers reposition themselves as facilitators of inquiry and when classrooms function as spaces for moral contemplation rather than mere knowledge reproduction.

In terms of scholarly contribution, this study extends deep learning discourse into Islamic Religious Education within a border-area context that has received limited attention in prior research. By focusing on classroom practices, teacher agency, and institutional dynamics, it enriches theoretical discussions that have largely centered on general or resource-rich educational settings. Nevertheless, the study is limited to two schools and emphasizes short-term classroom transformation, which constrains broader generalization and long-term evaluation of value internalization. Future research should examine diverse regions and educational levels, and employ longitudinal designs to explore sustained impacts of deep learning on students' moral and spiritual development.

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REFERENCES

- Alabdulhadi, M. M. J., & Alkandari, K. M. (2024). Practices of Islamic education teachers in promoting moderation (wasatiyyah) values among high school students in Kuwait: challenges and obstacles. *Cogent Education*, 11(1), 2365577. <https://doi.org/10.1080/2331186X.2024.2365577>
- Alharbi, N. S. (2024). Exploring the perspectives of cross-cultural instructors on integrating 21st century skills into EFL university courses. *Frontiers in Education*, 9, 1302608. <https://doi.org/10.3389/feduc.2024.1302608>
- 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>
- Andayanie, L. M., Adhantoro, M. S., Purnomo, E., & Kurniaji, G. T. (2025). Implementation of deep learning in education: Towards mindful, meaningful, and joyful learning experiences. *Journal of Deep Learning*, 47–56. <https://doi.org/10.23917/jdl.v1i1.11157>
- Anwar. (2023). Internalization of religious educational values in developing students' interpersonal intelligence. *PPSDP International Journal of Education*, 2(2), 35–45. <https://doi.org/10.59175/pijed.v2i2.106>
- Bago, B., & Bonnefon, J.-F. (2024). Generative AI as a tool for truth. *Science*, 385(6714), 1164–1165. <https://doi.org/10.1126/science.ads0433>
- Baihaqi, M. A., Prayitno, H. J., Ishartono, N., Hamranani, S. S. T., Putra, C. A., & Nizaar, M. (2025). Reimagining 21st-Century Higher Education: A Literature-Based Exploration of Deep Learning for Cognitive, Social, and Emotional Skill Development. *Journal of Deep Learning*, 139–168. <https://doi.org/10.23917/jdl.v1i2.11600>
- Cole, R. (2024). Inter-rater reliability methods in qualitative case study research. *Sociological Methods & Research*, 53(4), 1944–1975. <https://doi.org/10.1177/00491241231156971>
- De Silva, P., Gunarathne, N., & Kumar, S. (2025). Exploring the impact of digital knowledge, integration and performance on sustainable accounting, reporting and assurance. *Meditari Accountancy Research*, 33(2), 497–552. <https://doi.org/10.1108/MEDAR-02-2024-2383>
- Djuaini, A. (2025). Internalization of Islamic religious education values in moral development of students in Madrasah. *Afkaruna: International Journal of Islamic Studies (AIJIS)*, 3(1), 1–17. <https://doi.org/10.38073/aijis.v3i1.3330>
- Elihami, E., Masuwd, M. A., Sheerly, S., Ismail, I., Sitonda, S., & Sudirman, M. Y. (2024). Data-driven approaches in Islamic quality management and education technology for advancing sustainable development goals. *Jurnal Pendidikan Progresif*, 14(3), 1599–1616. <https://doi.org/10.23960/jpp.v14.i3.2024109>
- Feriyanto, F., & Anjariyah, D. (2024). Deep learning approach through meaningful, mindful, and joyful learning: A library research. *Electronic Journal of Education, Social Economics and Technology*, 5(2), 208–212. <https://doi.org/10.33122/ejeset.v5i2.321>
- Fitrah, M., Sofroniou, A., Yarmanetti, N., Ismail, I. H., Anggraini, H., Nissa, I. C., Widyaningrum, B., Khotijah, I., Kurniawan, P. D., & Setiawan, D. (2025). Are teachers ready to adopt deep learning pedagogy? The role of technology and 21st-century competencies amid educational policy reform. *Education Sciences*, 15(10), 1344. <https://doi.org/10.3390/educsci15101344>
- Fragkandreas, T. (2025). Case study research on innovation systems: Paradox, dialectical analysis and resolution. *Research Policy*, 54(1), 105136. <https://doi.org/10.1016/j.respol.2024.105136>
- Gunbayi, I. (2024). Rigor in qualitative research. *Journal of Action Qualitative & Mixed Methods Research (JAQMER)*, 3(2).

- Gúzman, V., & Larrain, A. (2024). The transformation of pedagogical practices into dialogic teaching: towards a dialogic notion of teacher learning. *Professional Development in Education*, 50(4), 716–729. <https://doi.org/10.1080/19415257.2021.1902837>
- Hacieminoğlu, E., & Yıldız, N. G. (2022). Interdisciplinary use of argumentation among religious education and philosophy teachers-in-training. *Religions*, 13(5), 405. <https://doi.org/10.3390/rel13050405>
- Hidayah, I. N., Kurniawaty, I., & Parhan, M. (2025). Religious-Based Habituation and the Cultivation of Interreligious Harmony in School Culture. *Harmoni*, 24(2), 326–342. <https://doi.org/10.32488/harmoni.v24i2.855>
- Hidayani, E. F., Prayitno, H. J., & Handayani, T. (2025). Deep learning: Implementation and impact in Islamic junior high schools. *Journal of Deep Learning*, 25–36. <https://doi.org/10.23917/jdl.v1i1.11077>
- Jiang, Z., & Jiang, M. (2024). Beyond answers: Large language model-powered tutoring system in physics education for deep learning and precise understanding. *ArXiv Preprint ArXiv:2406.10934*.
- Khoiriyah, N. A., & Salim, H. (2024). Internalization of Religious Values Through Religious Activities at MAN Klaten. *Tarbiyah Wa Ta'lim: Jurnal Penelitian Pendidikan Dan Pembelajaran*, 11(3), 395–404.
- Khong, M. L., & Tanner, J. A. (2024). Surface and deep learning: a blended learning approach in preclinical years of medical school. *BMC Medical Education*, 24(1), 1029. <https://doi.org/10.1186/s12909-024-05963-5>
- Linando, J. A., Sudagung, A. D., & Hasymi, A. M. (2025). Education and teacher careers at the Indonesia-Malaysia border: an ethnography study. *Ethnography and Education*, 1–23. <https://doi.org/10.1080/17457823.2025.2588356>
- Luz, M. S. da, Bordin, V., Marcon, S. S., Sanguino, G. Z., Cáceres-Titos, M. J., Su, C., & Barreto, M. da S. (2026). Repercussions of the Cross-Border Migration Process on Family Life: Systematic Review with Meta-Synthesis. *International Journal of Environmental Research and Public Health*, 23(2), 165. <https://doi.org/10.3390/ijerph23020165>
- Maulani, M. Y., Cahya, A. I., Ahyar, A., Supriyanto, D., & Iskandar, S. (2025). Teachers', Parents', and Students' Views on Learning Changes for 21st Century Skills Development in Elementary Education. *PrimaryEdu: Journal of Primary Education*, 9(2), 90–104.
- Moulin-Stozek, D., & Metcalfe, J. (2026). The Contribution of Religious Education to Pupils' Character Development. *University of Birmingham*.
- Nafi'ah, J., & Faruq, D. J. (2025). Conceptualizing deep learning approach in primary education: Integrating mindful, meaningful, and joyful. *Journal of Educational Research and Practice*, 3(2), 225–237. <https://doi.org/10.70376/jerp.v3i2.384>
- Noble, H., & Smith, J. (2025). Ensuring validity and reliability in qualitative research. *Evidence-Based Nursing*, 28(4), 206–208. <https://doi.org/10.1136/ebnurs-2024-104232>
- Nurhasanah, S., Sutiana, D., Nabil, F., Fauji, I., Hendriyan, S., & Dian, D. (2025). Bridging the gap: A systematic review of deep learning pedagogy for

- Indonesia's curriculum reform. *Tarbawi: Jurnal Keilmuan Manajemen Pendidikan*, 11(02), 277–292. <https://doi.org/10.32678/tarbawi.v11i02.11368>
- Olakpe, O. (2025). Cross-border migrations in western Africa: narratives of migration and mobility. *Journal of Ethnic and Migration Studies*, 51(18), 4744–4759. <https://doi.org/10.1080/1369183X.2025.2544089>
- Papakostas, C. (2025). Artificial Intelligence in Religious Education: Ethical, Pedagogical, and Theological Perspectives. *Religions*, 16(5), 563. <https://doi.org/10.3390/rel16050563>
- Ramadhan, I., Imran, I., & Hardiansyah, M. A. (2024). Dynamics of Education on the Indonesia-Malaysia Border: An Ethnopedagogical Study Analysis. *Journal of Nonformal Education*, 10(2), 366–377. <https://doi.org/10.15294/jone.v10i2.2334>
- Rosyad, A. M., & Adalakun, N. O. (2025). Implementation of Deep Learning Approach of Pancasila Education to Increase Critical Thinking Students. *International Journal of Science Education and Cultural Studies*, 4(2), 47–64. <https://doi.org/10.58291/ijsecs.v4i2.463>
- Rui, L. I., Nasri, M., Mahmud, N., & Diyana, S. N. (2024). The role of self-directed learning in promoting deep learning processes: a systematic literature review. *F1000Research*, 13, 761. <https://doi.org/10.12688/f1000research.150612.1>
- Saepurahman, A., Mahmud, M., Truna, D. S., & Arifin, B. S. (2025). The Internalization of Religious Moderation Values through Religious Culture to Foster Students' Character. *International Journal Of Humanities Education and Social Sciences (IJHESS)*, 4(5), 2082–2088. <https://doi.org/10.55227/ijhess.v4i5.1503>
- Sari, F. A., Hasanah, E., & Hidayati, D. (2025). Teachers' Readiness in Implementing Deep Learning: Managerial Studies in Islamic Education. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, 10(3), 749–765. <https://doi.org/10.31538/ndhq.v10i3.255>
- Siregar, T., Fauzan, A., Yerizon, Y., & Syafriandi, S. (2025). Designing mathematics teaching through deep learning pedagogy: Toward meaningful, mindful, and joyful learning. *Journal of Deep Learning*, 188–202. <https://doi.org/10.23917/jdl.v1i2.11969>
- Siswantara, Y., & Supriyadi, T. (2024). Religious character education: Students' perspectives on religion in diversity. *International Journal of Religion*, 5(11), 1811–1826. <https://doi.org/10.61707/vtmkt536>
- Takona, J. P. (2024). Research design: qualitative, quantitative, and mixed methods approaches. *Quality & Quantity*, 58(1), 1011–1013. <https://doi.org/10.1007/s11135-023-01798-2>
- Tisdell, E. J., Merriam, S. B., & Stuckey-Peyrot, H. L. (2025). *Qualitative research: A guide to design and implementation*. John Wiley & Sons.
- Wang, Y., You, F., & Li, Q. (2024). Machine Learning Algorithms for Fostering Innovative Education for University Students. *Electronics*, 13(8), 1506. <https://doi.org/10.3390/electronics13081506>
- Weng, C., Chen, C., & Ai, X. (2023). A pedagogical study on promoting students' deep learning through design-based learning. *International Journal of Technology and Design Education*, 33(4), 1653–1674.

<https://doi.org/10.1007/s10798-022-09789-4>

Xu, J., Wu, A., Filip, C., Patel, Z., Bernstein, S. R., Tanveer, R., Syed, H., & Kotroczo, T. (2024). Active recall strategies associated with academic achievement in young adults: A systematic review. *Journal of Affective Disorders*, 354, 191–198.

<https://doi.org/10.1016/j.jad.2024.03.010>

Yalvaç Arıcı, H. (2025). The future of religious education: The role and contributions of youth theology. *Religions*, 16(4), 454.

<https://doi.org/10.3390/rel16040454>