

Innovation in Islamic Religious Education Learning Based on Deep Learning in Building Religious Understanding

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Abstract

The development of digital technology and artificial intelligence has driven a transformation of learning paradigms in various educational fields, including Islamic Religious Education (PAI). However, PAI learning practices are often dominated by normative-doctrinal approaches and memorization-oriented methods, thus failing to fully develop a deep and contextual understanding of religion. This study aims to describe and analyze the concept, characteristics, implementation, and contribution of PAI learning based on the concept of Islamic Religious Education (PAI). Deep learning in building students' religious understanding. The research uses a qualitative approach with a literature study type (library research) combined with critical-conceptual analysis. Data were obtained from scientific books, national and international journal articles, and relevant policy documents, then analyzed using content analysis and thematic analysis techniques. The results of the study indicate that deep learning In the context of Islamic Religious Education (PAI), it is not only interpreted as artificial intelligence-based learning technology, but also as a pedagogical approach that emphasizes meaningful, reflective, constructive, and transformative learning. Its characteristics include an orientation toward in-depth understanding, development, and higher order thinking skills (HOTS), pedagogical integration of technology, participatory learning, and internalization of religious values. Implementation of this approach encourages students to connect Islamic teachings with social realities, develop critical and moderate attitudes, and internalize Islamic values in everyday life. Thus, Islamic Religious Education (PAI) learning is based on deep learning contribute to transforming the orientation of religious learning from merely transmitting doctrine to constructing a comprehensive, contextual religious understanding, oriented towards the formation of an inclusive religious character in the digital era.

Keywords: Digital era, deep learning, Islamic Religious Education, learning innovation, religious understanding

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INTRODUCTION

The development of digital technology over the past two decades has brought fundamental changes to various aspects of human life, including education. This transformation is marked by the increasingly widespread use of artificial intelligence (AI), big data, and machine learning in the learning process (Henukh et al., 2025). One of the rapidly developing cutting-edge approaches is deep learning, a branch of machine learning that mimics the way human neural networks process information in complex, layered ways. In the context of education, deep learning is understood not only as a technology, but also as a pedagogical approach that emphasizes meaningful learning, deep understanding, critical thinking skills, and reflection (Hattie & Donoghue, 2016).

This situation demands that the world of education, including Islamic Religious Education (PAI), innovate to remain relevant to the needs of students in the digital age (Amin & Hidayat, 2024). In general, Islamic Religious Education plays a strategic role in shaping students' religious understanding, moderate attitudes, and character based on Islamic values. However, in practice, Islamic Religious Education (PAI) learning in various educational institutions still faces a number of classic problems, such as the dominance of lecture methods, a cognitive approach that relies on memorization, and the minimal use of technology pedagogically (Irsad, 2016).

Data from the Ministry of Education, Culture, Research, and Technology shows that most religious learning is still oriented towards knowledge transfer, not fully encouraging in-depth understanding and internalization of values (Ramadhani & Aji, 2025). As a result, Islamic Education learning is often perceived as a normative subject that lacks contextual relevance to the realities of students' lives. In particular, the challenges of Islamic Religious Education learning are increasingly complex when faced with the characteristics of the digital generation (digital natives) accustomed to fast information, interactive visuals, and personalized learning. Learners are no longer satisfied with a one-way approach; they require adaptive, participatory learning models that accommodate different learning styles. This is where technology and pedagogical-based deep learning approaches become relevant for study and implementation in Islamic Religious Education (PAI) learning (Della et al., 2025). According to Fullan, Quinn, and McEachen, deep learning in education emphasizes six core competencies: character, citizenship, collaboration, communication, creativity, and critical thinking, all of which align with the goals of Islamic education (Fullan et al., 2017).

Theoretically, the concept of deep learning in education is rooted in constructivism and cognitivism, which position students as active subjects in constructing knowledge. Piaget asserted that meaningful learning occurs when individuals actively construct knowledge through interaction with the environment (Piaget, 1970). Meanwhile, Vygotsky emphasized the importance of social interaction and scaffolding in developing high-level thinking skills (Vygotsky & Cole, 1978). From the perspective of Islamic education, this idea is in line with the concept of *tafaqquh fi al-din*, namely a deep, reflective and contextual understanding of religion, not just a literal mastery of the text.

Several previous studies have examined innovations in Islamic Religious Education (PAI) learning using digital technology. Research by Suyatno et al. shows that the use of interactive digital media in Islamic Religious Education (PAI) learning can improve student motivation and learning outcomes, but has not specifically led to the development of in-depth religious understanding (Safrianto et al., 2024). Another study conducted by Rahman found that the integration of e-learning in Islamic Education was effective in terms of efficiency and accessibility, but was still superficial (surface learning) because it is less designed to encourage critical reflection (Ratnawati & Werdiningsih, 2020). Meanwhile, a study by Zainuddin and Keumala revealed that a HOTS-based learning approach in Islamic Religious Education has the potential to build a more contextual understanding of religion, but has not yet been integrated with a technology-based deep learning approach (Sholeh et al., 2025).

Based on the previous research study, it appears that there is a research gap (research gap), namely, there has not been much research that comprehensively examines innovations in Islamic Religious Education based on deep learning, both as a pedagogical approach and as a use of intelligent technology, in developing students' religious understanding. Previous research tends to focus on the use of technology as a medium, rather than as a learning system designed to encourage deep, reflective, and transformative understanding.

Based on this background, the research problem formulation is: (1) how is the concept of Islamic Religious Education learning based on deep learning; (2) how is the

implementation of PAI learning innovation based on deep learning in the learning process; and (3) how does PAI learning based on deep learning contribute to building students' religious understanding. The purpose of this research is to describe and analyze the concept, implementation, and implications of PAI learning based on deep learning in building a deep, contextual, and moderate religious understanding.

This research has both theoretical and practical urgency and significance. Theoretically, it is expected to enrich the body of knowledge in Islamic Religious Education, particularly regarding the development of innovative learning models relevant to technological developments and contemporary learning theories. Practically, the results of this study are expected to serve as a reference for educators, curriculum developers, and policymakers in designing Islamic Religious Education (PAI) learning that is adaptive, meaningful, and oriented toward developing a comprehensive understanding of religion in the digital era.

Literature Review

The literature review in this research focuses on three main areas, namely: (1) the concept of deep learning in education, (2) Islamic Religious Education and religious understanding, and (3) the integration of deep learning in Islamic Religious Education learning. These three areas serve as the theoretical and conceptual basis for understanding the research position and building a comprehensive analytical framework. Deep learning in the educational context first became popular through studies that distinguished it from surface learning. Marton and Säljö explain that deep learning refers to a learning approach that emphasizes understanding meaning, relationships between concepts, and critical reflection, while surface learning is more oriented towards memorization and reproduction of information (Marton & Säljö, 1976).

This approach was then further developed by Biggs through the concept of constructive alignment, which emphasizes the alignment between learning objectives, learning activities, and assessments so that students achieve in-depth understanding (Biggs & Tang, 2003). Thus, deep learning is not merely understood as a technology, but as a pedagogical approach oriented towards the quality of the learning process and outcomes. Along with the development of digital technology, the term deep learning is also used in the realm of artificial intelligence, especially as part of machine learning that utilizes artificial neural networks. According to Goodfellow, Bengio, and Courville, deep learning enables systems to learn from large amounts of data through layered processing, enabling them to recognize complex patterns and produce accurate predictions (Goodfellow et al., 2016). In education, deep learning technology is used to personalize learning, analyze student learning behavior, and develop adaptive learning systems. However, experts emphasize that the use of this technology must remain grounded in pedagogical principles to avoid technocentrism (Selwyn, 2021). In the context of Islamic Religious Education, the main purpose of learning is not only mastering religious knowledge, but also the formation of deep religious understanding, internalization of values, and the practice of Islamic teachings in daily life. Muhaimin emphasized that PAI aims to form Muslim humans who are faithful, pious, and have noble character through a holistic learning process (Irsad, 2016). Religious understanding in this perspective includes cognitive, affective, and psychomotor dimensions, thus demanding an integrative and reflective learning approach.

Several studies have shown that Islamic Religious Education (PAI) learning still faces methodological problems. Azra's research reveals that Islamic education in Indonesia tends to be normative-doctrinal and provides little room for the development of students' critical thinking (Azra, 2012). This has resulted in a textual and less contextual understanding of religion. In fact, in the Islamic scientific tradition, the process of understanding religion requires in-depth thinking (look And thought) as emphasized by

Al-Ghazali, meaningful knowledge is knowledge that gives rise to awareness and behavioral transformation (Al-Ghazali, 2004).

Many efforts have been made to innovate Islamic Religious Education (PAI) learning, particularly through the use of digital technology (Maryam et al., 2020). Research by Zahrah et al. shows that the use of interactive multimedia-based learning media in PAI can increase student motivation and engagement (Zahrah et al., 2025). However, the study emphasized that increased motivation is not necessarily directly proportional to the depth of religious understanding. Similar findings were presented by Rahman, who examined the implementation of e-learning in Islamic Religious Education (PAI) learning; the results showed effectiveness in terms of accessibility, but were not optimal in encouraging critical reflection and internalization of values (Ratnawati & Werdiningsih, 2020).

A learning approach that emphasizes higher order thinking skills (HOTS) has also begun to be integrated into Islamic Religious Education. Zainuddin and Keumala concluded that HOTS-based Islamic Religious Education learning can develop students' analytical and evaluation skills regarding contemporary religious issues (Sholeh et al., 2025). However, the HOTS approach is still partial and has not been systematically integrated into deep learning-based learning designs, both from a pedagogical perspective and in terms of the use of intelligent technology.

METHOD

This research uses a qualitative approach with a literature study type of research (library research) combined with critical-conceptual analysis (Adlini et al., 2022). A qualitative approach was chosen because the purpose of this study was to deeply understand the concept, meaning, and implications of deep learning-based Islamic Religious Education learning innovations in building religious understanding, not to test hypotheses statistically (Creswell & Creswell, 2018). The research data is sourced from secondary sources in the form of scientific books, articles from reputable national and international journals, research reports, and educational policy documents relevant to the topics of deep learning, Islamic education, and Islamic Religious Education (PAI). These sources were selected purposively based on the criteria of relevance, novelty (up to date), and the academic authority of the author or publishing institution (Zed, 2008).

Data collection techniques are carried out through systematic literature searches by utilizing scientific databases such as Google Scholar, Scopus, and Garuda, using keywords including: deep learning in education, Islamic education innovation, And Technology-based Islamic Religious Education. The collected data was then analyzed using content analysis techniques (content analysis) and thematic analysis, namely by classifying concepts, findings, and expert arguments into main themes relevant to the research focus (Krippendorff, 2018). To maintain the validity and credibility of the data, researchers triangulated sources by comparing various theoretical views and previous research results. The results of the analysis were then synthesized descriptively and analytically to produce a comprehensive understanding of the design and contribution of deep learning-based Islamic Religious Education learning in building students' religious understanding.

RESULT AND DISCUSSION

Result

Conceptualization of Deep Learning in Islamic Religious Education Learning

Based on the results of a literature analysis of various theoretical sources and previous research, it was found that the conceptualization of deep learning in Islamic Religious Education (PAI) learning cannot be understood solely as the use of artificial intelligence technology, but rather as a pedagogical approach that emphasizes meaningful, reflective, and transformative learning. Deep learning in this context is interpreted as a

learning process that encourages students to understand Islamic teachings in depth, link religious knowledge to real-life contexts, and internalize Islamic values in attitudes and behavior.

This finding is in line with the views of Marton and Säljö who emphasized that deep learning is oriented towards the search for meaning and conceptual relationships, not merely the mastery of superficial information (Marton & Säljö, 1976). In Islamic Religious Education (PAI) learning, deep learning is conceptualized through a paradigm shift from teacher-centered learning going to student-centered learning. Islamic Religious Education teachers no longer act as the sole source of knowledge, but rather as facilitators who design meaningful learning experiences. The study's findings indicate that this approach requires a learning design that aligns objectives, processes, and assessments, as outlined in the theory constructive alignment by Biggs (Biggs & Tang, 2003). In practice, the objectives of Islamic Religious Education (PAI) learning are directed at developing a critical and moderate understanding of religion, learning activities are designed based on solving contextual religious problems, while assessments are focused on analytical skills, reflection, and attitude-making.

Other findings indicate that deep learning in Islamic Religious Education (PAI) conceptually aligns with the goals of Islamic education. Normatively, Islamic education aims to shape individuals perfect a balance between knowledge, faith, and morals. This concept aligns with deep learning, which emphasizes the integration of cognitive, affective, and psychomotor domains. Muhaimin emphasized that ideal Islamic Religious Education (PAI) learning must foster a deep religious awareness, not merely formal adherence (Irsad, 2016). Thus, deep learning becomes a relevant framework to overcome the tendency of Islamic Education learning to be textual and normative-doctrinal in nature. From a technological perspective, the analysis shows that the use of artificial intelligence-based deep learning in Islamic Religious Education (PAI) has the potential to support personalized learning. This technology enables teachers to understand students' learning patterns, adapt materials to their level of understanding, and provide more adaptive feedback. However, the literature also emphasizes that deep learning technology should be positioned as a pedagogical tool, not the primary goal of learning. Selwyn emphasized that the use of technology in education must remain grounded in values, social context, and the goals of education itself (Selwyn, 2021). In Islamic Education (PAI), this principle is important to ensure that learning remains oriented towards the formation of Islamic values.

Furthermore, the findings of this study indicate that the conceptualization of deep learning in Islamic Religious Education contributes to the development of contextual and moderate religious understanding. With a learning approach that demands analysis, dialogue, and reflection, students are encouraged to understand Islamic teachings comprehensively and are able to respond wisely to contemporary religious issues. This aligns with the ideas of Fullan, Quinn, and McEachen, who emphasize that deep learning must produce learners with character, critical thinking, and social awareness (Fullan et al., 2017). Therefore, deep learning in Islamic Religious Education learning is not only pedagogically relevant but also strategic in building religious understanding oriented towards the welfare and life together in a multicultural society.

Characteristics of Islamic Education Learning Innovation Based on Deep Learning

Based on the analysis of various literature sources and previous research, it was found that deep learning-based Islamic Religious Education (PAI) learning innovations have key characteristics that distinguish them from conventional PAI learning models (Aswati & Nasrun, 2025). The first characteristic is an orientation toward in-depth religious understanding (deep religious understanding), not just cognitive mastery of the material. Deep learning-based Islamic Religious Education (PAI) instruction is designed to

encourage students to understand the meaning of Islamic teachings reflectively, contextually, and applicably in everyday life. This finding aligns with Marton and Säljö's view, which asserts that deep learning emphasizes the search for meaning and relationships between concepts, rather than procedural memorization (Marton & Säljö, 1976). In the context of Islamic Religious Education (PAI), this approach encourages students to relate religious texts to social reality, thus creating a more vibrant and meaningful understanding of religion.

The second characteristic is constructive and participatory learning. Deep learning-based Islamic Religious Education innovation positions students as active subjects who construct their religious knowledge through discussion, collaboration, problem-solving, and critical reflection. The teacher acts as a facilitator, providing scaffolding according to the students' learning needs. This finding supports Vygotsky's social constructivism theory, which emphasizes the importance of social interaction in developing higher-order thinking skills (Vygotsky & Cole, 1978). In Islamic Education (PAI) practice, these characteristics are evident in the use of religious case studies, analysis of contemporary issues, and critical dialogue that encourages students to reason about Islamic values rationally and ethically.

The third characteristic is the pedagogical and adaptive integration of digital technology. Deep learning-based Islamic Religious Education (PAI) instruction does not treat technology merely as a visual aid, but as a system that supports personalized learning and the development of in-depth understanding. The use of digital learning platforms, interactive multimedia content, and artificial intelligence-based technology allows teachers to map students' learning needs and provide learning experiences tailored to their individual characteristics. This finding aligns with Selwyn's view, which asserts that educational technology will be effective if designed based on clear pedagogical objectives, rather than simply following digital trends (Selwyn, 2021).

The fourth characteristic is the emphasis on development (HOTS) and 21st-century competencies. Deep learning-based Islamic Religious Education (PAI) innovations foster students' critical analysis, evaluation, and reflection on religious teachings and practices. Students are not only encouraged to understand what is right and wrong according to Islamic teachings, but also why and how these values are applied in the context of a multicultural society. This finding aligns with the deep learning concept developed by Fullan, Quinn, and McEachen, which emphasizes the importance of character development, critical thinking, communication, and collaboration (Fullan et al., 2017). In Islamic Religious Education, this competency contributes to the formation of a moderate and inclusive religious understanding.

The fifth characteristic is an orientation toward internalizing values and transforming religious attitudes. Findings indicate that deep learning-based Islamic Religious Education (PAI) instruction does not stop at cognitive aspects, but is directed toward changing students' religious perspectives and behaviors. The processes of reflection, self-evaluation, and internalization of values are integral parts of the learning design. This aligns with Al-Ghazali's view that the primary goal of education and knowledge is the formation of moral awareness and the transformation of morals (Al-Ghazali, 2004). Thus, deep learning-based Islamic Religious Education (PAI) innovations have strategic potential in building a comprehensive and in-depth understanding of religion, oriented toward the application of Islamic values in real life.

Implementation of Deep Learning-Based Islamic Education Learning in Educational Practice

The results of the literature review indicate that the implementation of deep learning-based Islamic Religious Education (PAI) in educational practice is realized through a paradigm shift in learning from a knowledge transmission approach to

meaningful learning oriented towards in-depth religious understanding. Deep learning-based PAI learning no longer positions students as passive recipients of teaching materials, but rather as active subjects involved in the process of exploration, reflection, and construction of the meaning of Islamic teachings. In practice, PAI teachers act as facilitators who design contextual, problematic, and reflective learning experiences by linking religious material to the realities of students' lives (Hattie & Donoghue, 2016). This finding is in line with Biggs' view that meaningful learning can only be achieved if learning activities are aligned with objectives and assessments that encourage deep understanding, not just memorization (Biggs & Tang, 2003).

The implementation of deep learning in Islamic Education is also seen in the use of learning strategies that emphasize higher order thinking skills (HOTS), such as analysis of contemporary religious cases, critical discussion, and reflection on values. Students are encouraged to analyze socio-religious phenomena, relate them to the verses of the Qur'an and Hadith, and draw argumentative and ethical conclusions. This approach allows for the integration of cognitive, affective, and spiritual aspects in Islamic Religious Education (PAI) learning. Previous research has shown that PAI learning that integrates HOTS can improve students' critical thinking skills and moderate attitudes in understanding religious teachings (Sholeh et al., 2025). Thus, deep learning contributes to the formation of religious understanding that is not merely textual, but contextual and reflective. In terms of technology utilization, the implementation of deep learning-based Islamic Religious Education (PAI) is characterized by the use of pedagogically designed digital platforms and interactive media. Technology serves not only as a tool for delivering material, but also as a means of personalizing learning, enriching learning resources, and facilitating collaboration. Several studies have shown that the use of a learning management system (LMS), analytics-based learning videos, and asynchronous online discussions can expand the space for religious dialogue and encourage students to engage in in-depth reflection on PAI material (Selwyn, 2021). However, the literature also confirms that the effectiveness of technology is highly dependent on the learning design; without a deep learning framework, technology has the potential to produce only surface learning (surface learning) (Kirkwood & Price, 2014).

Other findings indicate that deep learning-based Islamic Religious Education (PAI) has positive implications for the development of students' character and religious attitudes. The learning process, which emphasizes reflection on values, dialogue, and collaborative religious problem-solving, contributes to the development of tolerance, moderation, and responsibility. This aligns with the findings of Fullan, Quinn, and McEachen, who stated that deep learning is oriented toward character development and global competency, not solely academic achievement (Fullan et al., 2017). In the context of Islamic Religious Education (PAI), this orientation strengthens the function of religious education as a vehicle for internalizing Islamic values that are rahmatan lil 'alamin.

Overall, the findings of this study confirm that the implementation of deep learning-based Islamic Religious Education (PAI) in educational practice requires the integration of pedagogical design, higher-order thinking strategies, and the meaningful use of technology. All three are interconnected in developing students' in-depth, contextual religious understanding, oriented toward transforming attitudes and behaviors. These findings strengthen deep learning's position as a strategic approach to addressing the challenges of Islamic Religious Education (ISE) in the digital era.

Contribution of Deep Learning-Based Islamic Education Learning to Religious Understanding

The findings of this study indicate that Islamic Religious Education (PAI) learning is based on deep learning makes a significant contribution to building a deeper, more comprehensive, and transformative understanding of religious learning in students.

Religious learning, which previously tended to be textual-normative that is, limited to mastering legal principles, definitions, and provisions has evolved into a reflective, analytical, and contextual understanding. In this approach, students not only learn what is taught in the Qur'an and Hadith, but also understand why these teachings were revealed and how they are relevant to the dynamics of contemporary social life. This aligns with the concept of deep approach to learning put forward by Marton and Säljö, who emphasized that in-depth learning encourages students to seek meaning, connect ideas, and integrate new knowledge with previously held cognitive structures (Marton & Säljö, 1976). Thus, Islamic Religious Education learning is no longer oriented towards reproducing information, but rather towards constructing living and applicable religious meanings.

Furthermore, the approach deep learning Islamic Religious Education (PAI) allows for the integration of the cognitive, affective, and practical dimensions of religion. Religious understanding does not stop at the conceptual level, but rather moves toward internalizing values and transforming attitudes. Students are invited to reflect on Islamic teachings through dialogue, case analysis, and discussions of current religious issues such as tolerance, social justice, and digital ethics. This process fosters critical awareness of social realities while strengthening an inclusive religious commitment. This perspective aligns with Biggs's idea of constructive alignment, which emphasizes the importance of alignment between learning objectives, learning activities, and assessments in producing meaningful understanding (Biggs & Tang, 2003). In the context of Islamic Religious Education, when learning objectives are directed at the formation of reflective religious understanding, learning activities are designed to be based on problem solving, value reflection, and argumentative dialogue, not just one-way lectures.

Another significant contribution is seen in students' ability to simultaneously understand the normative and rational dimensions of Islamic teachings. Through this approach, deep learning, students are encouraged to explore the wisdom, maqāsid, and human values contained in religious teachings. Thus, Islamic teachings are understood not only as a set of rules that must be obeyed, but as a value system that has ethical and social goals. This approach strengthens the intellectual tradition of Islam which emphasizes the importance of look And thought in understanding revelation in depth (Al-Ghazali, 2004). This kind of understanding contributes to the birth of a mature religious attitude, where obedience is not based on fear alone, but on complete rational awareness and understanding.

The literature also shows that the approach deep learning contributes significantly to strengthening moderate and tolerant attitudes toward religion. Dialogic and reflective learning creates a space for students to discuss differing religious views rationally and ethically. They not only learn about the truth of Islamic teachings from a normative perspective but are also trained to understand the diversity of interpretations within the Islamic scholarly tradition. This process helps students avoid exclusive, black-and-white, and extreme attitudes in understanding religion. Fullan, Quinn, and McEachen assert that deep learning oriented towards character development, social empathy, and critical thinking skills that form the foundation for a democratic and multicultural life (Fullan et al., 2017). In the context of Islamic Religious Education, this orientation is highly relevant to efforts to build religious moderation and a harmonious social life in a pluralistic society.

Furthermore, PAI learning is based on deep learning It also strengthens the function of religious education as a vehicle for developing faithful and noble individuals capable of peaceful coexistence. The process of reflection and dialogue in learning encourages students to internalize the value of rahmatan lil 'ālamīn (blessings for the universe) as an ethical principle in social life. They understand the commandment of tolerance not only as a normative text, but also as a moral commitment that must be realized in daily interactions. From an Islamic educational perspective, this goal aligns with the idea that education should produce complete human beings (insan kamil),

namely individuals who possess a balance between faith, knowledge, and good deeds (Irsad, 2016). Thus, the contribution of Islamic Religious Education (PAI)-based learning deep learning not only academic, but also strategic in building mature, inclusive, and contextual religious awareness.

Overall, the findings of this study confirm that the implementation of deep learning in Islamic Religious Education (PAI) learning, it can transform the learning orientation from merely transmitting doctrine to constructing a critical, reflective, and socially beneficial religious understanding. The religious understanding generated through this process not only strengthens the individual's spiritual dimension but also fosters social responsibility and national commitment. Therefore, this approach deep learning can be positioned as a relevant and contextual pedagogical strategy in responding to the challenges of learning Islamic Religious Education in the digital era and multicultural society.

Discussion

The results of the study show that innovation in Islamic Religious Education (PAI) learning is based on deep learning presents a significant paradigm shift in the construction of students' religious understanding. This shift not only touches on the methodological aspects but also touches on the epistemological dimensions of religious learning. Until now, Islamic Religious Education (PAI) learning has tended to position Islamic teachings as a collection of normative doctrines that must be accepted and memorized. This approach often results in a textual and procedural understanding of religion. From Marton and Säljö's perspective, this pattern falls into the category of surface learning, namely learning that is oriented towards reproducing information without exploring deep meaning (Marton & Säljö, 1976).

On the contrary, the approach deep learning Encourage students to seek meaning, connect concepts, and reflect on the values they learn. In the context of Islamic Religious Education, this means students not only understand the arguments or provisions of Islamic law literally, but also explore their rationality, purpose (maqāṣid), and social relevance. Biggs, through the concept constructive alignment emphasizes that meaningful learning can only be achieved if objectives, learning activities, and assessments are designed in harmony to encourage high-level understanding (Biggs & Tang, 2003). Thus, the implementation of deep learning in PAI requires a systemic reconstruction of learning design, not just method innovation.

Theoretically, this approach has strong overlaps with constructivism. Piaget emphasized that knowledge is constructed through the processes of assimilation and accommodation in interaction with the environment (Piaget, 1970), while Vygotsky emphasized the importance of social interaction and scaffolding in developing higher-order thinking skills (Vygotsky & Cole, 1978). In Islamic Religious Education (PAI) learning, this principle can be realized through discussions of contemporary religious cases, critical dialogue, and collaborative reflection that enable students to actively construct religious understanding. With this approach, the teacher no longer acts as a sole authority but as a facilitator guiding the process of internalizing values.

Furthermore, the results of the analysis show that deep learning in Islamic Religious Education does not conflict with the Islamic educational tradition, but rather has a strong conceptual alignment. The Islamic scientific tradition has emphasized the importance of thought, contemplation, and understand it in the religion as a process of understanding religion in depth. Al-Ghazali, for example, emphasized that true knowledge is knowledge that gives rise to moral awareness and behavioral transformation, not merely mastery of information (Al-Ghazali, 2004).

Thus, the application of deep learning in Islamic Education it can be seen as a revitalization of the epistemological spirit of Islam which places understanding as the core

of learning. In terms of its characteristics, PAI innovation is based on deep learning exhibits five main characteristics: (1) orientation towards deep understanding; (2) constructive and participatory learning; (3) pedagogical integration of technology; (4) development higher order thinking skills (HOTS); and (5) internalization of religious values. These characteristics are in line with the framework *global competencies* developed by Fullan, Quinn, and McEachen, which emphasizes the importance of character, collaboration, communication, creativity, and critical thinking in 21st-century learning (Fullan et al., 2017). In the context of Islamic Religious Education, these competencies contribute to the formation of moderate and inclusive religious attitudes.

Utilization of artificial intelligence-based technology in the approach deep learning also provides a new dimension in Islamic Religious Education learning. Goodfellow, Bengio, and Courville explain that deep learning In the realm of AI, systems can analyze data in layers to recognize complex patterns (Goodfellow et al., 2016). In education, this technology can be used for personalized learning, learning pattern analysis, and adaptive feedback. However, Selwyn cautioned that educational technology must remain grounded in pedagogical objectives to avoid technocentrism (Selwyn, 2021). Therefore, in Islamic Religious Education (PAI), technology must be positioned as an instrument for deepening religious reflection, not as an end in itself.

The significant contribution of this approach is evident in strengthening contextual and reflective religious understanding. Students engaged in analytical and dialogue-based learning tend to be better able to understand differences in religious interpretations and respond wisely to social issues. This is crucial in the context of a multicultural society, where exclusive and textual understandings of religion have the potential to foster intolerant attitudes deep learning encourage students to see Islamic teachings as a value system that has ethical and social goals, thereby strengthening the rahmatan lil 'ālamīn orientation.

Furthermore, this approach has implications for transforming students' religious attitudes. When learning is designed based on reflection and dialogue, students not only understand religious norms but also internalize them in their personal consciousness. Muhaimin emphasized that the goal of Islamic Religious Education (PAI) is to shape individuals who are faithful, pious, and have noble morals through a holistic learning process (Irsad, 2016). Deep learning strengthen this orientation by ensuring that learning touches on cognitive, affective, and practical dimensions simultaneously.

Overall, this discussion confirms that PAI learning innovation is based on deep learning is a relevant pedagogical strategy in addressing the challenges of the digital era. This approach not only improves the quality of the learning process but also transforms the orientation of religious understanding from normative-doctrinal to reflective-contextual. By integrating pedagogical design, HOTS development, and meaningful use of technology, Islamic Religious Education (PAI) can play a more effective role in developing a generation of critical, moderate, and character-based Muslims. Therefore, deep learning not just a methodological innovation, but a new epistemological framework in the development of Islamic Religious Education learning in the digital era.

CONCLUSION

Based on the results of the literature study and analysis, it can be concluded that the innovation of Islamic Religious Education (PAI) learning is based on deep learning is a relevant pedagogical approach in building students' religious understanding in the digital era. Deep learning It is not only understood as the use of artificial intelligence technology, but as a learning approach that emphasizes in-depth understanding, critical reflection, the construction of meaning, and the contextual internalization of Islamic values. This approach shifts the paradigm of Islamic Religious Education learning from one that is oriented towards memorization and normative-doctrinal learning to meaningful learning

that is participatory, constructive, and aligned between objectives, processes, and assessments. Its characteristics include the development of higher order thinking skills (HOTS), pedagogical integration of technology, and emphasis on character formation and transformation of religious attitudes.

Furthermore, PAI learning is based on deep learning contributes significantly to developing a comprehensive, reflective, and moderate understanding of religion. Students not only understand Islamic teachings textually, but are also able to examine their wisdom, purpose, and relevance in a multicultural social life. The dialogic and contextual learning process encourages the growth of tolerant, inclusive, and socially responsible attitudes. Thus, the Islamic approach deep learning can be positioned as a strategic pedagogical and epistemological framework to transform Islamic Religious Education learning to be more adaptive, meaningful, and able to answer the challenges of the digital era

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