



## Deep Learning Approach In PAI Learning In An Effort To Transform The Understanding Of The Alpha Generation

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**Abstract:** The low level of students' understanding in Islamic religious education has often been attributed to the influence of digital technology; however, this study reveals that the primary issue lies in the inadequacy of pedagogical approaches employed in the learning process. This study aims to analyse the role of the deep learning approach as a transformative pedagogical framework in enhancing conceptual understanding and the internalisation of religious values among Generation Alpha learners. The significance of this research is grounded in the mismatch between conventional teacher-centred learning and the characteristics of Generation Alpha, who require interactive, reflective, and contextual learning experiences. This research adopts a qualitative approach, using a library research method to analyse relevant scholarly sources. It assumes that meaningful, mindful, and student-centred learning can foster deeper understanding. The findings indicate that the deep learning approach effectively transforms learning from memorisation into meaningful understanding through reflective activities, active participation, and contextual engagement. This study contributes by positioning deep learning as a comprehensive pedagogical paradigm in Islamic religious education. Therefore, transforming instructional design is essential to improving students' understanding in the digital era..

**Keyword:** *Deep Learning*; Islamic Religious Education; Generation Alpha; Transformative Learning

**Abstrak:** Rendahnya pemahaman peserta didik dalam pembelajaran Pendidikan Agama Islam selama ini sering dikaitkan dengan pengaruh teknologi digital, namun penelitian ini justru menunjukkan bahwa akar permasalahan utama terletak pada ketidaktepatan pendekatan pedagogis yang digunakan. Penelitian ini bertujuan untuk menganalisis peran pendekatan Deep Learning sebagai kerangka transformasi pembelajaran dalam meningkatkan pemahaman konseptual dan internalisasi nilai keagamaan pada generasi Alpha. Urgensi penelitian ini didasarkan pada ketidaksesuaian antara pembelajaran konvensional yang berpusat pada guru dengan karakteristik generasi Alpha yang membutuhkan pembelajaran interaktif, reflektif, dan kontekstual. Penelitian ini menggunakan pendekatan kualitatif dengan metode studi literatur melalui analisis berbagai sumber ilmiah yang relevan. Penelitian ini berasumsi bahwa pembelajaran yang bermakna, berkesadaran, dan berpusat pada peserta didik mampu mendorong pemahaman mendalam. Hasil penelitian menunjukkan bahwa pendekatan Deep Learning mampu mentransformasi proses pembelajaran dari hafalan menuju pemaknaan melalui aktivitas refleksi, partisipasi aktif, dan pengaitan dengan konteks kehidupan. Penelitian ini berkontribusi dengan menempatkan Deep Learning sebagai paradigma pedagogis

*komprehensif dalam PAI. Dengan demikian, transformasi desain pembelajaran menjadi kunci utama dalam meningkatkan kualitas pemahaman peserta didik di era digital..*

Kata kunci: *Deep Learning*; Pendidikan Agama Islam; Generasi Alpha; Transformasi Pembelajaran

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## **Introduction**

The phenomenon of students' low level of understanding in Islamic Religious Education (IRE) remains a serious issue affecting instructional effectiveness in the era of Generation Alpha. Understanding is a primary indicator of successful learning because it reflects students' ability to construct meaning rather than merely memorize information. However, IRE instruction continues to be dominated by knowledge-transmission approaches that position students as passive recipients, resulting in limited conceptual understanding and weak internalization of religious values (Hasan et al., 2025). Parhan et al. (2024) revealed that Islamic Religious Education learning is often oriented toward theoretical content and memorization; therefore, contextual and meaningful learning approaches are needed to enhance students' understanding and application of religious values in their daily lives. Mubarak & Fauzi (2024) further emphasized that student-centered and reflection-based learning approaches can improve both learning quality and pedagogical competence in Islamic Religious Education, as they encourage active engagement and independent knowledge construction. These conditions indicate that the low level of students' understanding in Islamic Religious Education requires a transformation of instructional approaches capable of fostering deeper, more reflective, and meaningful learning experiences that align with the characteristics of Generation Alpha.

Existing studies on the transformation of Islamic Religious Education learning demonstrate three major trends. First, transformation efforts emphasize the utilization of digital technology and instructional innovations to improve the quality of Islamic Religious Education learning (Laisya et al., 2022; Munawir & Dwi Thalia, 2025; Zumaroh, 2022). Munawir & Dwi Thalia (2025) argued that the rapid development of digital technology presents both challenges and opportunities for IRE learning, requiring teachers to master technological competencies and develop innovative instructional strategies to enhance students' understanding (Hasan & Sintasari, 2025). Second, transformation efforts highlight the importance of pedagogical innovation and learning approaches that promote student engagement and deeper understanding (Munawir et al., 2024; Syahbani Siregar et al., 2025). Munawir et al. (2024) explained that Islamic Religious Education requires pedagogical innovation to improve learning quality and encourage active student

participation. Consequently, pedagogical innovation has become a crucial factor in strengthening students' understanding of religious values and their relevance to everyday life.

Third, transformation efforts focus on the application of Deep Learning as a pedagogical framework for improving the quality of Islamic Religious Education learning (Ismail, 2025; Meirina et al., 2025; Supriyadi et al., 2025). Meirina et al (2025) found that the Deep Learning approach can enhance students' learning motivation, critical thinking skills, and religious character in Islamic Religious Education (Ainiyah et al., 2025; Ali et al., 2026). This approach enables students to develop a deeper understanding through active engagement in learning processes, reflection, and independent knowledge construction. Nevertheless, these studies generally focus on the implementation of Deep Learning at the classroom strategy level and have not extensively examined Deep Learning as a comprehensive pedagogical framework that integrates epistemological dimensions, meaning-making processes, critical reflection, and the internalization of religious values within a unified learning system. In other words, previous studies have primarily discussed what teachers do through Deep Learning strategies, while investigations into how Deep Learning shapes a learning paradigm that guides students in understanding, interpreting, and continuously internalizing religious values remain relatively limited. This gap constitutes the central focus of the present study.

Based on this research gap, the present study aims to conceptually analyze the role of Deep Learning as a transformational pedagogical framework in Islamic Religious Education for enhancing the understanding of Generation Alpha learners. Specifically, this study seeks to explore the characteristics of Generation Alpha's understanding in Islamic Religious Education, analyze the limitations of conventional instructional approaches, and synthesize how the principles of Deep Learning can foster learning processes that encourage meaning construction, critical reflection, and deeper, more sustainable internalization of religious values. This study was conducted through a systematic literature review of scholarly articles obtained from reputable databases, including Google Scholar, Scopus, and Dimensions, using keywords related to Deep Learning, Islamic Religious Education, student understanding, and Generation Alpha. The selected literature consisted of publications relevant to the research topic and meeting predetermined inclusion criteria to provide a comprehensive conceptual overview of the position of Deep Learning within the transformation of Islamic Religious Education learning. Accordingly, the arguments presented in this study are grounded in a structured and relevant synthesis of the existing literature.

This study is built upon several arguments. First, the Deep Learning approach is considered capable of improving the quality of learning processes because it emphasizes meaningful, reflective, and contextual learning. Dewi et al. (2025)

demonstrated that the integration of meaningful, mindful, and enjoyable learning within the Deep Learning framework enhances student engagement, strengthens the connection between learning materials and real-life contexts, and fosters reflective awareness throughout the learning process. Second, within the context of Islamic Religious Education, the implementation of Deep Learning can increase students' active participation and deepen their conceptual understanding of religious values. Nurhayati et al. (2025) found that this approach helps students relate religious teachings to their everyday experiences, thereby making learning more meaningful. Third, from a theoretical perspective, Deep Learning also strengthens metacognitive abilities, learning focus, and meaningful interconnectedness in the learning process (Wiandani et al., 2025). Therefore, this approach has considerable potential to serve as a transformative framework for Islamic Religious Education learning that promotes deeper, more contextual, and reflective understanding among Generation Alpha learners.

### **Method**

This study focuses on the transformation of Islamic Religious Education (IRE) learning through the Deep Learning approach in enhancing the understanding of Generation Alpha students. The research focus is based on the phenomenon of students' low conceptual understanding in IRE learning, which is still predominantly characterized by conventional instructional approaches centered on memorization and knowledge transmission. In this context, Deep Learning is viewed as a relevant pedagogical framework for promoting more meaningful, reflective, and contextual learning experiences. Therefore, this study aims to conceptually examine how the Deep Learning approach can transform the learning process in Islamic Religious Education to enhance both conceptual understanding and the internalization of religious values among Generation Alpha learners.

This study employed a qualitative approach using a library research design. This approach was chosen to explore in depth the concept of Deep Learning within the context of Islamic Religious Education and its relevance to improving the understanding of Generation Alpha students. The literature review involved examining various scholarly sources, including journal articles, academic books, and previous research findings related to Deep Learning, the transformation of Islamic Religious Education learning, student understanding, and the characteristics of Generation Alpha. Through this review, the study sought to construct a conceptual framework regarding the role of the Deep Learning approach in transforming Islamic Religious Education into a more meaningful and reflective learning process.

The data sources in this study consisted of primary and secondary sources. Primary data were obtained from scholarly journal articles discussing Deep Learning in education, the transformation of Islamic Religious Education learning, as well as studies on student understanding and the characteristics of Generation

Alpha. Secondary data were derived from academic books, research reports, and other scientific publications relevant to the research topic. All sources were selected based on their relevance, academic credibility, and alignment with the study's focus on the transformation of Islamic Religious Education through the Deep Learning approach.

The research process was conducted through several stages. The first stage involved literature identification through Google Scholar, Publish or Perish, and ResearchGate using the keywords "Deep Learning," "Islamic Religious Education," "learning transformation," "student understanding," and "Generation Alpha." This initial search yielded 50 articles. The second stage consisted of a screening process based on the relevance of titles, abstracts, and research focus, resulting in 35 relevant articles. The third stage involved eligibility assessment using inclusion and exclusion criteria. The inclusion criteria were: (1) articles discussing Deep Learning, Islamic Religious Education, student understanding, or Generation Alpha; (2) articles published in reputable scientific journals, at least indexed in SINTA or equivalent databases; and (3) publications released within the last ten years (2015–2025). However, sources published before this period were used selectively when they served as foundational theoretical references relevant to the research concepts, such as studies on Generation Alpha. Following the selection process, 27 articles were retained as the primary sources for analysis. The subsequent stage involved in-depth reading, concept categorization, and synthesis of research findings to develop a conceptual framework concerning the transformation of Islamic Religious Education through the Deep Learning approach.

Data analysis was conducted using descriptive qualitative analysis through a content analysis approach. The analytical process consisted of several stages, namely data reduction, data display, and conclusion drawing (Krippendorff, 2019). Data reduction involved selecting and categorizing concepts, theories, and research findings relevant to the study focus. The reduced data were then presented in descriptive form to illustrate the relationships among the analyzed concepts. The final stage involved drawing conclusions through the interpretation of the reviewed literature, resulting in a comprehensive understanding of Deep Learning as a transformative framework for Islamic Religious Education aimed at enhancing the understanding of Generation Alpha learners.

## **Results And Discussion**

### **Result**

#### **Characteristics of Generation Alpha's Understanding of Islamic Religious Education Learning**

The literature review indicates that the characteristics of Generation Alpha's understanding in Islamic Religious Education (IRE) learning exhibit unique tendencies, particularly in the way they receive and process information. Students

are generally more responsive to visual, audiovisual, and interactive digital content than to lecture-based methods or lengthy texts (Gunawan et al., 2024). However, the understanding they develop tends to be superficial, limited to recognizing concepts without demonstrating deeper analytical or reflective abilities (Ranggana et al., 2025). In this context, students are generally capable of answering factual questions but encounter difficulties when confronted with tasks requiring them to relate religious values to the realities of everyday life.

This learning pattern indicates the predominance of surface learning, in which information is stored only temporarily without sustained meaning construction. Furthermore, the tendency toward multitasking in technology use, as reported in the literature, contributes to students' low learning focus (Aulia & Makrufi, 2025). These conditions suggest that Generation Alpha's understanding has not yet fully reached the conceptual and reflective dimensions expected in Islamic Religious Education learning.

**Table 1 Literature Synthesis on the Characteristics of Generation Alpha's Understanding**

Aspect	Main Indicator	Description	Learning Implication	Sources
<b>Learning Preference</b>	Visual, audiovisual, and interactive digital media	More responsive to digital media than lectures or lengthy texts	Integration of interactive media is required	(Gunawan et al., 2024; McCrindle, 2014)
<b>Level of Understanding</b>	Surface learning	Able to recognize concepts without deeper analysis	Strategies that promote Deep Learning are needed	(Parhan et al., 2024; Ranggana et al., 2025)
<b>Analytical Ability</b>	Low	Difficulty relating concepts to real-life contexts	Contextual and problem-based approaches are required	(Parhan et al., 2024; Ranggana et al., 2025)
<b>Value Reflection</b>	Weak	Religious values are not	Reflective learning	(Parhan et al., 2024; Sih et al., 2025)

		deeply internalized	activities are necessary	
<b>Information Retention</b>	Short-term	Information is quickly received but not retained for long periods	Meaning elaboration is required to strengthen retention	(McCrindle, 2014; Ranggana et al., 2025)
<b>Learning Focus</b>	Low (easily distracted)	Digital multitasking reduces concentration	More engaging instructional designs are needed	(Aulia & Makrufi, 2025; Sih et al., 2025)
<b>Cognitive Pattern</b>	Instant and rapid	Preference for concise and practical information	Gradual strategies toward deeper understanding are needed	(Gunawan et al., 2024; McCrindle, 2014)

The data presented in Table 1 indicate that Generation Alpha's understanding in IRE learning is still dominated by surface learning patterns. Students tend to recognize concepts only at the factual level without demonstrating analytical, interpretative, or reflective abilities. Moreover, their preference for digital media suggests that learning processes are strongly influenced by technological developments, thereby requiring more interactive and adaptive instructional approaches.

Analysis of six studies discussing Generation Alpha characteristics reveals three dominant patterns. First, all studies confirm a strong preference for interactive digital media. Second, three of the six studies identify a tendency toward surface learning, characterized by factual understanding without reaching reflective levels. Third, four studies report students' limited ability to connect religious values with real-life contexts. These cross-study findings suggest that the primary challenge in Islamic Religious Education lies not in access to information but rather in the insufficient process of meaning construction.

This phenomenon is closely related to the characteristics of Generation Alpha as digital natives who have grown up in technology-based environments (McCrindle, 2014). Continuous exposure to abundant and rapidly accessible information has fostered a tendency toward instant learning, thereby reducing the depth of cognitive processing. From a constructivist perspective, deep understanding requires active processes such as elaboration, reflection, and meaningful experiences, which have not yet been fully facilitated in current

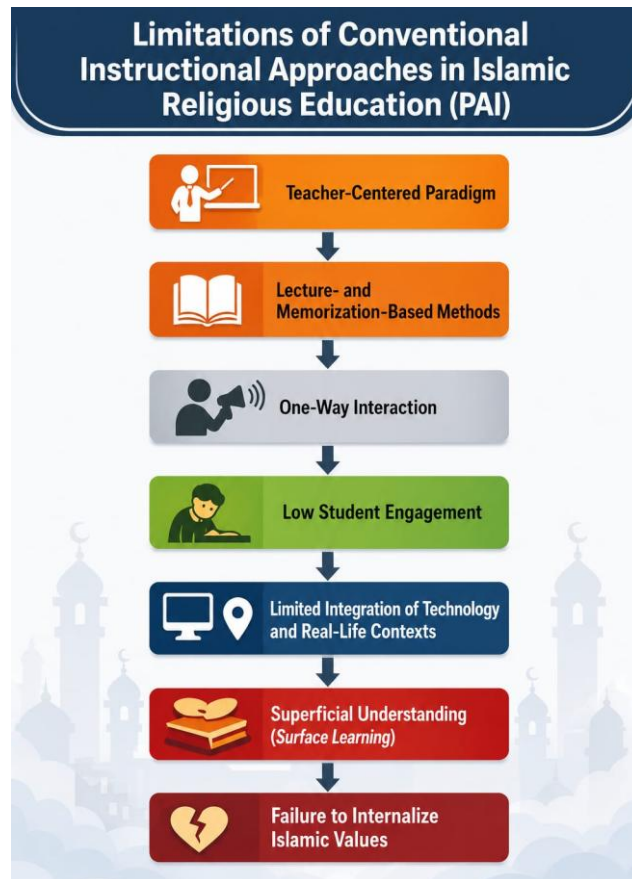
educational practices. Parhan et al. (2024) emphasized that the dominance of memorization-based methods in IRE contributes to weak conceptual understanding. Furthermore, the lack of reflective activities prevents the optimal internalization of religious values. Intensive exposure to digital technology also contributes to fragmented attention, as explained by Sih et al. (2025) who argued that uncontrolled technology use may reduce students' learning concentration.

These characteristics demonstrate a strong relationship among individual factors, digital environments, and instructional approaches. When learning does not accommodate students' digital learning styles, the resulting understanding tends to be suboptimal. Conversely, when instruction is designed to be contextual, interactive, and reflective, students' cognitive potential can be more fully developed. Therefore, the low quality of understanding is not solely attributable to the characteristics of Generation Alpha but also to the mismatch between instructional approaches and students' learning needs. This finding highlights the importance of pedagogical transformation toward more adaptive, reflective, and meaningful approaches, particularly through Deep Learning, so that IRE learning emphasizes not only cognitive development but also the holistic internalization of religious values.

### **Limitations of Conventional Learning Approaches in Islamic Religious Education**

The literature review indicates that Islamic Religious Education learning remains largely dominated by a teacher-centered paradigm that positions teachers as the primary actors in the learning process (Gea et al., 2022). Learning activities tend to focus on content delivery, note-taking, and memorization-based assessment. Interactions are predominantly one-way, limiting students' active participation (Hafid & Hayati, 2025). Several studies associate this condition with low student engagement, both cognitively and emotionally (Amiruddin et al., 2023; Helmy et al., 2023).

In addition, the limited use of instructional media and insufficient integration of technology contribute to monotonous learning experiences that are less aligned with the characteristics of Generation Alpha. Munawir and Dwi Thalia (2025) asserted that learning environments that fail to utilize digital technology will struggle to attract students' interest in the modern era. Consequently, students tend to function as passive recipients of information rather than active participants in the learning process, resulting in shallow and unsustainable understanding.



**Figure 1** Limitations of Conventional Approaches in Islamic Religious Education Learning

Figure 1 illustrates that conventional IRE learning remains teacher-centered, with lecture and memorization methods dominating classroom activities. This pattern generates one-way interactions that restrict opportunities for student participation. As a result, students’ engagement in the learning process remains low, both cognitively and emotionally. The limited use of technology and the lack of connection between learning materials and real-life contexts further reinforce monotonous and less meaningful learning experiences.

These limitations stem from a learning paradigm that prioritizes knowledge transmission rather than meaning construction. In the context of Islamic Religious Education, such an approach is less effective because religious values require internalization processes involving experience, reflection, and active student participation. Nurhayati et al. (2025) explained that non-contextual learning experiences encounter difficulties in connecting religious teachings with the realities of daily life. Furthermore, Munawir et al. (2024) emphasized the necessity of pedagogical innovation to enhance active student engagement. Exposure to technology without appropriate instructional strategies also contributes to reduced learning focus, thereby weakening the process of understanding.

The limitations of conventional approaches are closely linked to the low quality of students' understanding in Islamic Religious Education. When students are not actively involved in learning, knowledge construction cannot occur optimally. Moreover, the mismatch between instructional methods and the characteristics of Generation Alpha, who are accustomed to digital environments, further widens the learning gap. These findings indicate that effective learning should not focus solely on cognitive aspects but must also integrate affective and contextual dimensions in a balanced manner (Syahbani Siregar et al., 2025). Therefore, a transformation toward more adaptive, innovative, and participatory learning approaches is essential as a foundation for implementing Deep Learning in Islamic Religious Education.

A synthesis of the literature shows that the limitations of conventional learning can be categorized into three main dimensions: pedagogical, psychological, and contextual limitations. Pedagogically, most studies identify the dominance of lecture-based and memorization-oriented methods that hinder active student participation. Psychologically, low emotional and reflective engagement prevents learners from constructing deeper meaning. Contextually, limited technological integration and weak connections between learning content and students' real-life experiences reduce the relevance of instruction for Generation Alpha learners.

### **Transforming Understanding in Islamic Religious Education through the Deep Learning Approach**

The Deep Learning approach introduces a significant transformation in Islamic Religious Education by positioning students as the primary agents of the learning process. Learning is no longer oriented toward one-way content delivery but instead focuses on developing deep understanding through discussion, reflection, and the connection of learning materials to real-life contexts. Activities such as problem solving, case studies, experiential exploration, and value reflection become integral components of the learning process. This approach enables students not only to understand concepts cognitively but also to internalize religious values more consciously and meaningfully in their daily lives (Meirina et al., 2025). Furthermore, the integration of interactive digital media enhances students' interest, motivation, and participation, making learning more relevant to the characteristics of Generation Alpha.

To provide a clearer illustration of this transformation process, a model of the transformation of understanding is presented in the following table:

**Table 2 Transformation of Islamic Religious Education through Deep Learning**

Aspect	Conventional Learning	Deep Learning Approach	Form of Transformation	Main Sources
<b>Paradigm</b>	Teacher-centered	Student-centered	Shift in learning focus	(Munawir, Alfiana Damayanti, et al., 2024; Nurhayati et al., 2025)
<b>Student Role</b>	Passive recipient	Active learner	From passive to participatory	(Meirina et al., 2025; Nurhayati et al., 2025)
<b>Learning Method</b>	Lectures and memorization	Discussion, problem solving, reflection	From knowledge transfer to knowledge construction	(Meirina et al., 2025; Utami et al., 2025)
<b>Interaction</b>	One-way	Interactive and collaborative	From monologue to dialogue	(Fullan et al., 2018; Utami et al., 2025)
<b>Learning Context</b>	Non-contextual	Contextual and experience-based	From abstract to applicable	(Ismail, 2025; Nurhayati et al., 2025)
<b>Cognitive Process</b>	Remembering (LOTS)	Analysis, evaluation, reflection (HOTS)	From LOTS to HOTS	(Fullan et al., 2018; Utami et al., 2025)
<b>Level of Understanding</b>	Surface learning	Deep understanding	From memorization to meaning-making	(Ismail, 2025; Meirina et al., 2025)
<b>Knowledge Retention</b>	Short-term	Long-term	From temporary to sustainable	(Meirina et al., 2025; Utami et al., 2025)
<b>Affective Dimension</b>	Underdeveloped	Integrated	From cognitive to holistic	(Ismail, 2025; Nurhayati et al., 2025)

<b>Value Internalization</b>	Weak	Strong and reflective	and to internalizing	From knowing to internalizing	(Ismail, 2025; Nurhayati et al., 2025)
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Table 2 demonstrates that educational transformation occurs not only in instructional methods but also in paradigms, student roles, and the quality of understanding achieved. The shift from teacher-centered to student-centered learning serves as the primary foundation for developing deeper and more meaningful understanding.

Cross-source analysis indicates that the transformation offered by Deep Learning operates across three major dimensions: pedagogical, cognitive, and affective transformation. Pedagogical transformation is characterized by the shift from teacher-centered to student-centered learning (Azizah et al., 2023; Hakim et al., 2025). Cognitive transformation is reflected in the movement from memorization toward analysis, reflection, and meaning construction. Meanwhile, affective transformation is evidenced by the stronger internalization of religious values through contextual and reflective learning experiences. These findings suggest that Deep Learning functions not merely as an instructional strategy but as a pedagogical framework that simultaneously integrates cognitive, affective, and contextual dimensions.

This transformation model illustrates a fundamental shift from conventional learning toward Deep Learning-based instruction. Such changes are evident in the movement from passive to active learning, from memorization to conceptual understanding, and from decontextualized learning to experiences that are more relevant to students' lives. Active student engagement becomes a key factor in fostering deeper and more meaningful understanding.

This transformation is rooted in constructivist theory, which emphasizes meaning-making through reflective and contextual learning experiences. Within this framework, students construct knowledge independently through interactions with their learning environment. Fullan et al. (2018) argued that Deep Learning fosters global competencies such as critical thinking, collaboration, and creativity. In the context of Islamic Religious Education, this approach helps students connect religious teachings with the realities of everyday life. Utami (2025) further noted that Deep Learning strengthens students' metacognitive abilities, collaborative skills, and reflective awareness. The integration of digital technology enhances the effectiveness of this approach because it aligns with the characteristics of Generation Alpha, who are accustomed to interactive digital environments.

From an interrelational perspective, the Deep Learning approach is closely associated with improving the quality of Islamic Religious Education. It addresses the limitations of conventional learning by creating more participatory, contextual,

and reflective learning processes. The alignment between Deep Learning principles and the characteristics of Generation Alpha makes learning more adaptive to the demands of the digital era. Furthermore, the integration of cognitive, affective, and reflective dimensions generates holistic and meaningful learning experiences (Ismail, 2025). Therefore, Deep Learning functions not only as an instructional strategy but also as a framework for pedagogical transformation capable of enhancing both students' understanding and the internalization of religious values in a deeper and more sustainable manner.

### **Discussion**

The findings of this study indicate that Generation Alpha students' understanding of Islamic Religious Education (IRE) remains predominantly characterized by a surface learning pattern, marked by the ability to recognize concepts at a factual level but limited capacity for deeper analysis, reflection, and contextualization of values. This condition is influenced by the characteristics of Generation Alpha, who are highly responsive to digital media but tend to exhibit low learning focus and instantaneous cognitive processing. Furthermore, IRE instruction that continues to rely on conventional approaches reinforces the development of superficial understanding due to the limited active engagement of students in the learning process. On the other hand, the findings also reveal that the Deep Learning approach is capable of transforming the learning process through a paradigm shift toward more participatory, reflective, and contextual learning. This transformation not only enhances the quality of conceptual understanding but also strengthens the internalization of religious values through the integration of cognitive, affective, and reflective dimensions within the learning process.

These findings are consistent with the study conducted by Parhan et al. (2024) which emphasized that the dominance of memorization-based methods in Islamic Religious Education contributes to students' low conceptual understanding. Likewise, Munawir et al. (2024) highlighted the importance of pedagogical innovation in promoting active student engagement in the learning process. However, the present study offers an enhanced perspective by positioning Deep Learning not merely as an instructional strategy but as a comprehensive framework for pedagogical transformation. Furthermore, this study extends the findings of Meirina et al. (2025) who reported that Deep Learning enhances learning motivation and critical thinking skills, by demonstrating that this approach also plays a significant role in strengthening reflective dimensions and the internalization of religious values. In contrast to studies that focus solely on the integration of digital technology, this research argues that technology alone, without an appropriate pedagogical framework, does not automatically improve the quality of students' understanding.

These findings suggest that the primary challenge in Islamic Religious Education does not solely stem from the characteristics of Generation Alpha but rather from the mismatch between instructional approaches and the learning needs of students in the digital era. The dominance of surface learning reflects a crisis of meaning-making within the learning process, in which students have not yet been able to construct meaning reflectively from the material they study. From the perspective of transformative learning (Mezirow, 1997), this condition indicates that the process of critical reflection, which constitutes the core of transformational understanding, has not been adequately facilitated in current educational practices. Moreover, the weak internalization of religious values suggests that learning remains primarily focused on cognitive aspects, without sufficiently addressing students' affective and existential dimensions. Consequently, these findings reflect an urgent need to reconstruct the paradigm of Islamic Religious Education toward one that emphasizes meaning-making and reflective awareness.

The implications of these findings indicate that the transformation of Islamic Religious Education should be directed toward strengthening the Deep Learning approach as a primary pedagogical framework. Teachers should no longer function merely as transmitters of information but rather as facilitators who encourage students to construct knowledge independently through reflective and contextual learning activities (Azizah & Usman, 2023; S. Dewi et al., 2024). In addition, instructional design should strategically integrate digital media, not merely as visual aids but as tools for creating interactive and meaningful learning experiences. Another implication is the need for curriculum development that emphasizes a balance among cognitive, affective, and psychomotor domains within Islamic Religious Education. In this way, learning can produce not only conceptual understanding but also foster character development and a profound awareness of religious values. More broadly, these findings contribute to the development of Islamic Religious Education models that are adaptive to the challenges of the digital era.

The findings of this study can be explained through several interrelated factors. First, the characteristics of Generation Alpha, who have grown up in a digital environment, have accustomed them to rapid access to information, thereby encouraging a tendency to overlook deeper processes of meaning-making (McCrindle, 2014). Second, the continued dominance of conventional instructional approaches provides limited opportunities for students to actively engage in knowledge construction. Third, the lack of reflective activities within the learning process hinders the optimal internalization of religious values. In this context, Deep Learning becomes highly relevant because it bridges the gap between the characteristics of Generation Alpha and the need for meaningful learning. This approach enables the integration of learning experiences, reflection, and meaning

construction, allowing students not only to understand concepts but also to relate them to the realities of everyday life.

Nevertheless, the effectiveness of the Deep Learning approach cannot be separated from various implementation challenges that warrant critical academic consideration. Several studies have demonstrated that the success of student-centered learning depends heavily on teachers' pedagogical competence, the readiness of the learning environment, and the availability of adequate resources (Munawir et al., 2024; Syahbani Siregar et al., 2025). Within the context of madrasahs and schools that possess diverse characteristics and resources, the implementation of Deep Learning may encounter obstacles such as limited digital infrastructure, learning cultures that remain oriented toward memorization, and curricular demands that prioritize cognitive achievement. These conditions indicate that Deep Learning is not a universal solution that can be applied uniformly across all Islamic Religious Education contexts; rather, it requires adaptation to the characteristics of individual institutions and learners.

Moreover, from a constructivist perspective, learning that emphasizes exploration and independent knowledge construction requires learners to possess adequate self-regulated learning skills (Fullan et al., 2018). The challenge is that although Generation Alpha is highly familiar with digital technology, they do not necessarily possess strong critical reflection skills or effective self-management of learning. McCrindle (2014) explained that Generation Alpha grows up in an environment that provides instant access to information, which may reduce perseverance in engaging with deeper processes of meaning-making. Therefore, the implementation of Deep Learning in Islamic Religious Education requires pedagogical scaffolding in the form of guidance, direction, and systematic feedback to ensure that reflection and the internalization of religious values occur optimally.

Based on these findings, a strategic step forward is the development of systematic and contextual Deep Learning-based instructional designs for Islamic Religious Education. Teachers should implement learning models that promote problem-solving activities, reflective discussions, and the exploration of students' real-life experiences. In addition, professional development programs for teachers are essential to enhance their competence in designing adaptive and innovative learning experiences. The use of digital technology should also be directed toward strengthening interactivity and reflection rather than merely delivering information. At the policy level, support is needed in the form of curriculum development that is more flexible and oriented toward meaningful learning. Further research is also necessary to examine the effectiveness of Deep Learning implementation in various educational contexts and levels. Consequently, the transformation of Islamic Religious Education learning should not remain merely conceptual but should also

be practical, sustainable, and capable of responding effectively to the challenges of contemporary education.

### **Conclusion**

The findings of this study reveal that the low level of students' understanding in Islamic Religious Education (IRE) is not solely attributable to the characteristics of Generation Alpha as digital natives; rather, it is more strongly influenced by the mismatch between instructional approaches and students' learning needs. Existing assumptions often attribute weak understanding primarily to technological distractions. However, the findings of this study demonstrate that even within technology-rich environments, deep understanding can still be achieved when learning is designed to be reflective, contextual, and participatory. A particularly noteworthy finding is that the use of technology without an appropriate pedagogical framework not only fails to enhance understanding but may also reinforce surface learning. Therefore, the primary issue lies not in the generation itself or in technology, but in the design of the learning process. This finding highlights that pedagogical transformation is a key factor that has received insufficient attention in Islamic Religious Education within the digital era.

From an academic perspective, this study not only confirms previous findings regarding the importance of instructional innovation and student-centered approaches in Islamic Religious Education but also offers a new perspective by positioning Deep Learning as a comprehensive framework for pedagogical transformation. Unlike previous studies that tend to regard Deep Learning merely as a learning strategy or instructional method, this research conceptualizes it as a paradigm that simultaneously integrates cognitive, affective, and reflective dimensions. Accordingly, this study contributes to the conceptual understanding that improving students' comprehension cannot be achieved solely through innovations in media or technology, but rather through the reconstruction of learning processes oriented toward meaning-making and critical reflection. Furthermore, this study expands the scholarly discourse by specifically linking Deep Learning with the characteristics of Generation Alpha, thereby providing a more contextual theoretical foundation for the development of Islamic Religious Education in the digital age.

Nevertheless, this study has several limitations that should be acknowledged. First, the study employed a literature review approach and did not involve direct empirical data collection, resulting in findings that remain largely conceptual in nature. Second, the data sources were limited to literature published within a specific time frame and did not encompass a broader range of educational contexts, such as differences in educational levels, sociocultural backgrounds, and regional characteristics. Third, this study did not directly examine the implementation of the Deep Learning approach in actual classroom settings; therefore, its effectiveness still

requires empirical verification. Consequently, further research is strongly recommended involving larger samples, more diverse contexts, and mixed-methods approaches to obtain a more comprehensive understanding of the phenomenon. Such future studies are expected to provide a stronger empirical basis for the formulation of effective policies and practices in Islamic Religious Education learning.

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