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## RECONSTRUCTION OF ISLAMIC EDUCATION CURRICULUM MANAGEMENT BASED ON DEEP LEARNING IN THE ERA OF DIGITAL TRANSFORMATION

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**ABSTRACTS**

**Background:** The reconstruction of the Islamic Education (PAI) curriculum is essential in responding to the changes brought by the digital era. **Purpose:** This article proposes a deep learning-based curriculum management model for Islamic education as a form of digital transformation within Islamic educational institutions. The approach emphasizes the development of deep understanding, spiritual reflection, and the integration of Islamic values into all aspects of the curriculum. **Method:** The research employs a conceptual-theoretical (library research) approach with a comparative analysis of literature on curriculum management, deep learning theory, and best practices in contemporary Islamic education. **Result:** The findings reveal key components of deep learning-based curriculum management, including adaptive curriculum design, data-driven teacher training, longitudinal evaluation, and managerial-technological synergy. **Conclusion:** Practical recommendations are directed toward transforming curriculum policies in madrasahs and Islamic schools.

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## A. INTRODUCTION

Islamic Education (PAI) in formal educational institutions plays a crucial role in shaping the spiritual and moral character of students. However, traditional curriculum approaches are often less responsive to technological developments and the needs of modern society. The era of digital transformation demands curriculum management reforms that are more adaptive, interactive, and oriented toward developing deep thinking abilities (deep learning).

The concept of deep learning in the context of Islamic education can be understood as a learning process that not only emphasizes cognitive aspects but also integrates affective and spiritual dimensions. This approach aims to produce learners who are not only critical thinkers but also possess noble character and strong moral integrity (Munzir, 2022).

In the context of Islamic education, deep learning is not solely oriented toward the cognitive dimension but also integrates the affective dimension (faith and character) and the spiritual dimension (monotheism and worship). This aligns with the view of Al-Attas (1980), who emphasized that the ultimate goal of Islamic education is “the making of a good man” an individual who possesses both knowledge and proper adab (*ta’dib*). Therefore, the implementation of deep learning in Islamic Education (PAI) should be directed toward fostering interconnected spiritual, intellectual, and moral awareness (Surahman, 2022).

The implementation of deep learning based instruction integrated with artificial intelligence (AI) technology can enhance access, personalization, and learning effectiveness when supported by an adaptive curriculum design. However, in many Islamic educational institutions, particularly madrasahs, learning is still dominated by surface learning approaches focusing mainly on memorization and factual knowledge which have not yet encouraged students to achieve deep and meaningful understanding (Mahesa & colleagues, 2025).

Data from the Ministry of Religious Affairs of the Republic of Indonesia (2024) indicate that more than 63% of Islamic Education (PAI) teachers in madrasahs still rely on conventional lecture-based teaching models, with limited integration of educational technology. This presents a major challenge in developing an Islamic Education curriculum that is responsive to the changing times and the demands of 21st-century competencies.

Reconstructing Islamic Education curriculum management based on deep learning is therefore an urgent strategic step. Such a curriculum not only emphasizes religious knowledge but also fosters higher-order thinking skills, spiritual values, and digital competencies. This approach is expected to produce a generation of madrasah students who are knowledgeable, morally upright, technologically adaptive, and competitive in the global workforce (Munadirin et al., 2023).

## **Curriculum Management in Islamic Education**

Curriculum management in Islamic education encompasses the processes of planning, implementation, and evaluation, all grounded in Islamic values. An effective curriculum is one that successfully aligns learners' needs with the challenges of the times. Meanwhile, the deep learning approach emphasizes deep understanding, reflection, and the ability to connect knowledge across disciplines. The integration of these two concepts can produce a high-quality curriculum model that is both intellectually enriching and spiritually grounded..(Munadirin et al., 2023)

The curriculum is the core of the educational process, serving as a guide, direction, and benchmark for the implementation of learning activities. In the context of Islamic education, the curriculum encompasses not only cognitive and skill dimensions but also plays a vital role in shaping students' character, spirituality, and morality. Therefore, curriculum management in Islamic Education (PAI) holds a strategic position in realizing the holistic goals of Islamic education nurturing a complete human being who possesses faith, knowledge, and noble character.

This article discusses the concepts, principles, and implementation of curriculum management within the educational system in general, including key management elements such as planning, organization, implementation, and evaluation (syafitri, 2025).

Curriculum management in Islamic Education (PAI) is not limited to the preparation of syllabi and lesson plans but encompasses the entire systematic process of curriculum planning, organizing, implementation, and evaluation. The success of each stage depends greatly on the quality of educational leadership, the professionalism of teachers, and the support of a conducive institutional environment (dkk I. F., 2025).

Digital transformation, shifts in learning paradigms, and the demands of the Society 5.0 era require Islamic Education (PAI) curriculum management to focus on strengthening 21st-century competencies such as critical thinking, collaboration, communication, and creativity without neglecting Islamic spiritual and moral values. The implementation of the Merdeka Curriculum, which emphasizes project-based learning and the Pancasila Student Profile, also calls for a renewal of PAI curriculum management to cultivate religious, independent, and highly ethical learners. Strengthening curriculum management thus becomes a strategic step toward integrating Islamic values into every aspect of learning across schools, madrasahs, and Islamic higher education institutions(janah, 2024).

The study of curriculum management in Islamic Education (PAI) is highly relevant to be further developed, as it not only provides theoretical contributions to the advancement of Islamic educational management but also offers practical implications for improving the quality of learning and the character development of students amid the dynamic changes in global education (Zahrah, 2024).

### **1. The Concept of Curriculum and Curriculum Management**

In educational theory, the curriculum can be defined as “a series of systematically designed learning experiences aimed at achieving educational goals.” Curriculum management, therefore, refers to the process of planning, organizing, implementing, and evaluating the curriculum so that educational objectives can be achieved effectively and efficiently. According to (Mardhatillah, Annisa, 2022), curriculum management encompasses the fields of curriculum planning, development, implementation, and improvement through a cooperative,

comprehensive, systemic, and systematic management approach that ensures the achievement of curricular goals.

## **2. Curriculum Management in Islamic Education**

Within the realm of Islamic education including madrasahs, pesantren, and Islamic schools the concept of curriculum management gains a distinctive character, as it must be grounded in Islamic value sources (the Qur'an, Hadith, and Islamic traditions) and integrated with social and temporal contexts.

Rohimat et al. (2022) emphasize that the development of the Islamic education curriculum should be guided by Qur'anic principles, such as those in Surah Ali Imran (190–191), which provide a value foundation for knowledge and reflection. Several scholars highlight the framework of curriculum management in Islamic institutions:

- a. Lukman (2021) introduces the three pillars paradigm: kiai (spiritual leader) as visionary, the curriculum as an educational instrument, and the community as active stakeholders.
- b. Surahman & Rahman Nayla (2023) assert that curriculum management serves as a strategic instrument to integrate Islamic character values into the institutional culture.
- c. Khoirun Nisak (2023) explains that the PAI curriculum encompasses several domains: Qur'anic sciences, Hadith, faith (iman), ethics (akhlaq), jurisprudence (fiqh), and Islamic history.

Curriculum management in Islamic education generally involves three main phases planning, implementation, and evaluation (including development) all of which are continuously aligned with Islamic values (tawhid, akhlaq, ibadah, and social contribution) and adapted to contemporary challenges. These stages can be outlined as follows:

- a. Planning: Setting curriculum goals aligned with Islamic values; analyzing learner needs and social demands; selecting relevant content (religious knowledge, moral education, general knowledge, and 21st-century skills); and designing integrated learning structures and strategies.
- b. Implementation: Organizing resources (teachers, materials, and technology); conducting active learning integrated with Islamic values; and adapting to technological and social changes.
- c. Evaluation and Development: Monitoring goal achievement, assessing processes and outcomes, gathering feedback, and revising the curriculum to maintain relevance and effectiveness (Rozi, 2020)

## **3. Islamic Values in the Curriculum of Islamic Education**

Islamic religious education requires that the curriculum not merely serve as a medium for the transfer of knowledge, but also as a process for the internalization of Islamic values—tawhid (monotheism), akhlaq (morality), ibadah (worship), social responsibility, and civility. For example:

- a. In the study (Hasanah (2023), it is stated that the Islamic Religious Education (PAI) curriculum should include elements such as the ability of students to avoid immoral acts (fahisyah), show compassion, and express gratitude to Allah and their parents.
- b. Other research suggests that the integration of Islamic values and global needs can be realized through strengthening a curriculum that combines classical

Islamic texts (turath) with modern science and technology subjects, the development of soft skills and hard skills based on sharia principles, and partnerships with formal institutions and industries. (Curriculum Management in Islamic Boarding Schools: Integrating Islamic Values and Global Needs, 2025, ejournal.darunajah.ac.id)

An effective PAI curriculum does not merely contain religious materials but connects them with contemporary contexts, real-life applications, and 21st-century skills while remaining firmly rooted in Islamic values (Khairani, 2024). Curriculum management based on Islamic values is a systematic approach to curriculum administration that places Islamic teachings and principles as the foundation, direction, and spirit of all educational activities. From the perspective of Islamic education, a curriculum is not simply a collection of subjects or learning materials, but a system designed to instill faith (iman), knowledge ('ilm), and righteous action ('amal salih) in an integrated manner. Conceptually, Islamic values based curriculum management encompasses the entire process from planning, organizing, implementation, to evaluation grounded in Islamic principles such as sincerity (ikhlas), trustworthiness (amanah), responsibility (mas'uliyah), justice ('adl), and public benefit (maslahah) (Nugraha, 2024).

#### **4. The Context of the Digital Transformation Era and the Challenges of the Islamic Religious Education (PAI) Curriculum**

The era of digital transformation marked by the Fourth Industrial Revolution (Industry 4.0) and Society 5.0 demands that Islamic Religious Education (PAI) institutions adapt their curricula to remain relevant to technological advances, globalization, and social dynamics. For example:

- a. "Machine learning provides the prediction and thus the learning personalization which helps to adapt the material to the student. The study Curriculum Management of Al Izzah Islamic International Boarding School (batu, 2023) highlights that curriculum management serves as a strategic component in addressing global challenges and competition in the Industrial Revolution 4.0 era (Batu, 2023). Similarly, (&setiawan, 2023) emphasize the importance of integrating technology such as Artificial Intelligence (AI) and Virtual Reality (VR) to enhance deep learning in Islamic education.
- b. Therefore, PAI curriculum management in the digital era must encompass dimensions such as technological adaptation, digital literacy development, strengthening global collaboration, and fostering a lifelong learning mindset among learners and educators.
- c. As noted by (Karim, 2024) "Machine learning provides prediction and thus enables learning personalization, which helps adapt the material to the student." This suggests that technology-driven personalization can play a key role in making Islamic education more adaptive, relevant, and learner-centered in the digital age.

#### **Deep Learning Approach in Education**

##### **1. Definition and Characteristics of Deep Learning**

The deep learning approach in education (not in the context of artificial neural networks) refers to a learning process in which learners gain deep understanding, build interdisciplinary connections, engage in reflection, and apply knowledge to

real-life contexts. This approach emphasizes learning that is not merely memorization but involves meaning-making, mindfulness, and enjoyment in the learning process. Some of its main characteristics include meaningful learning, mindful learning, and joyful learning. For example:

- a. Jamilatun & Faruq (2023) in "Conceptualizing Deep Learning Approach in Primary Education" state that deep learning is associated with being mindful (conscious), meaningful (significant), and joyful (enjoyable) as an effort to respond to the low PISA results in Indonesia (Faruq, 2023).
- b. Waruwu & Setiawati (2023) in "Integration of Deep Learning Curriculum in Education" highlight that deep learning emphasizes conceptual understanding, critical thinking skills, and preparedness for global challenges (Setiawati, 2023).
- c. Apriliyana (2024) notes that the implementation of deep learning in education includes elements such as real-world connections, personalized learning, collaboration, and the use of digital technology to enhance engagement and contextual learning.

From these perspectives, the deep learning approach can be summarized as encompassing:

- a. Deep understanding of concepts, rather than mere memorization or repetition.
- b. Connecting new knowledge with prior knowledge and applying it in real-life contexts.
- c. Self-reflection, enabling learners to link learning with personal meaning and values.
- d. Collaboration among learners and the use of technology to support active, contextual, and interactive learning experiences.
- e. "One of the most notable innovations was integrating artificial intelligence and deep learning in religious studies, including Quranic education and research." (An, et al., Understanding the Integration of Deep Learning and Artificial Intelligence in Quranic Education and Research through Bibliometric Analysis, 2025)

## **2. Benefits and Challenges of the Deep Learning Approach**

The deep learning approach in the context of education—referring not to artificial intelligence algorithms but to a pedagogical strategy for deep, meaningful learning—represents a paradigm that emphasizes conceptual understanding, knowledge transfer to new situations, active collaboration, reflection, and competency development rather than rote memorization. Therefore, deep learning holds significant potential to improve the quality of education in an era of increasing complexity (Singh, 2024).

Benefits include:

- a. Enhancing critical and analytical thinking skills.
- b. Encouraging knowledge transfer across real-world and interdisciplinary contexts.
- c. Supporting digital literacy and learner preparedness for the digital era.

Challenges include:

- a. The need for teachers to shift paradigms from content-based teaching to facilitating deep learning processes.
- b. The availability of resources (technology, infrastructure, teacher capacity) necessary to support personalized and collaborative learning.

- c. The need for more complex assessment systems, not only quantitative but also qualitative and reflective in nature.

Within the framework of curriculum management, the deep learning approach requires that the curriculum be designed not merely as a list of subjects, but as a sequence of learning experiences that allow students to explore, reflect, collaborate, and apply knowledge in authentic contexts. The curriculum should include deep learning strategies, appropriate technology integration, authentic assessment, and the cultivation of values that support active learning. In the context of Islamic value-based curriculum management, this approach can be integrated to instill the values of faith (iman), knowledge (ilmu), and good deeds (amal saleh) through reflective, contextual, and collaborative learning—thus achieving the essence of deep learning (Lukie Masayu Andayanie, 2024).

### **3. The Relationship Between Deep Learning and Curriculum**

The deep learning approach requires that the curriculum (structure, content, learning strategies, and assessment) be redesigned to support the characteristics of deep learning. Several key points include:

- a. Albani (2023), in *The Relevance of Deep Learning Curriculum in the Context of Indonesian Education*, emphasizes that curricula that still focus heavily on memorization and factual mastery need to shift toward contextual, collaborative, and reflective learning (Albani, 2023) .
- b. Arina & Herlambang (2023), in *Implementation of Deep Learning in the Independent Curriculum*, state that implementing deep learning in the curriculum requires supportive policies, teacher training, and appropriate assessment systems (herlambang, 2023) .
- c. Apriliyana (2024) highlights that deep learning design involves **\*\*digital technology, collaboration, and personalization\*\***—therefore, the curriculum must support these aspects (Apriliyana, 2024) .

Integrating deep learning into the curriculum means that curriculum management must accommodate content revision, learning strategies, the use of technology, and more reflective outcome evaluation (Saqjuddin, 2025). “The findings indicate that the deep learning approach facilitates a paradigm shift in PAI, transitioning it from a mere transfer of knowledge to the formation of applicable character and spiritual intelligence.” (Mundofi, 2025)

### **3. Integration of Islamic Education Curriculum Management (PAI) with the Deep Learning Approach in the Digital Transformation Era**

#### **3.1. Rationale for Integration**

Why is it necessary to integrate Islamic Education Curriculum Management (PAI) with the deep learning approach in the digital transformation era? Several reasons include:

- a. The digital era brings rapid changes: learners must be able to think critically, creatively, collaboratively, and be adaptive to technology not merely master traditional religious content.
- b. A PAI curriculum based solely on memorization or routine practices may lose its relevance in facing modern challenges such as digital literacy, technological ethics, and global citizenship.
- c. The deep learning approach offers a suitable framework for 21st-century education and can be meaningfully connected with Islamic values for example,

through self-reflection, meaningful understanding, and connecting knowledge to real life.

- d. Curriculum management in Islamic education must become more dynamic to effectively integrate Islamic values and 21st-century competencies and the deep learning approach serves as both a theoretical and operational bridge. (Prihantini Prihantini, Deep Learning Approaches in Education: A Literature Review on Their Role in Addressing Future Challenges, 2025).

“This study explores the application of curriculum deep learning strategies to enhance students’ conceptual understanding in Islamic education within digital learning environments.” (uharoh, 2024)

### **Model of Islamic Education Curriculum Management (PAI) Based on Deep Learning**

The Deep Learning-Based Islamic Education Curriculum Management Model is a framework for curriculum administration that integrates the core principles of Islamic education faith (iman), morality (akhlak), and practice (amal) with deep learning strategies that emphasize conceptual understanding, reflection, contextual application, and the development of 21st-century competencies. This model is not merely about incorporating technology, but about designing a managerial cycle planning, organizing, implementation, and evaluation that aligns with the dual goals of forming Islamic character and cultivating critical, collaborative, and creative thinking skills (Syayidah, 2025).

#### **1. Implementation**

- a. Organizing resources: involving teachers who understand both Islamic values and deep learning approaches, along with the provision of appropriate technology, infrastructure, and relevant learning materials.
- b. Learning process: employing methods that encourage deep learning such as project-based learning, real-world problem solving, interdisciplinary integration, and embedding Islamic values in digital contexts. For example, integrating Qur’an reading and interpretation activities with digital or collaborative projects.
- c. Continuous monitoring: conducting supervision of learning processes, technology use, and teacher-student interaction, and making adaptive improvements when obstacles are identified.
- d. Resource Organization: This includes teachers who possess a deep understanding of Islamic values and the deep learning approach, adequate technological infrastructure, and relevant instructional materials. Effective organization ensures that all resources support meaningful, value based learning experiences.
- e. Learning Process: Learning should employ methods that promote deep learning such as project-based learning, real-world problem-solving, interdisciplinary learning, and the integration of Islamic values in digital contexts. For example, combining Qur’an reading and tafsir activities with digital or collaborative projects helps students connect spiritual understanding with technological skills.
- f. Continuous Monitoring: Regular supervision is necessary to oversee learning processes, technology use, and student-teacher interactions. When



challenges arise, adaptive strategies should be applied to maintain the quality and relevance of the learning process.

## **2. Evaluation and Development**

- a. Evaluation of Learning Outcomes: Assessments should cover religious and moral competencies, 21st-century skills, and digital literacy to ensure comprehensive student development.
- b. Evaluation of Learning Processes: Evaluate whether deep learning has truly occurred focusing on reflection, knowledge connection, and collaboration among students.
- c. Curriculum Revision: Curriculum updates should be based on evaluation results, new technologies, emerging global challenges, and evolving learner needs.
- d. Development of a Deep Learning Culture: Schools or Islamic educational institutions should foster an organizational culture that supports deep learning and Islamic values through collaboration with all stakeholders, teachers, parents, communities, and Islamic organizations.

## **3. Key Aspects of the Model**

Several key aspects must be considered in integrating deep learning within the management of the Islamic Education Curriculum (PAI):

- a. Islamic Values as the Foundation: Every stage of curriculum management must be firmly rooted in Islamic values. The Qur'an serves as the primary foundation in managing the Islamic education curriculum, ensuring that all educational processes reflect the principles of tawhid, morality, and akhlaq karimah (dkk, 2022).
- b. Deep Learning Pedagogy: Deep learning emphasizes understanding, reflection, and application rather than mere memorization of facts. Albani (2023) highlights that deep learning fosters contextual understanding, collaboration, and critical thinking—encouraging students to internalize and apply knowledge meaningfully.
- c. Utilization of Digital Technology: In the era of digital transformation, Islamic education must integrate technology such as digital literacy, online platforms, and immersive tools (AR/VR) to make learning more engaging and relevant. Waruwu & Setiawati (2023) note that integrating AI and VR in deep learning enhances interaction and comprehension in modern Islamic education.
- d. Collaboration and Personalization: Students act as active subjects in learning, while teachers function as facilitators. Learning should be both collaborative and personalized to meet learners' individual needs. Apriliyana (2024) identifies these elements as core components of effective deep learning environments.
- e. Contextualization with Contemporary Challenges: PAI curriculum must connect learning to current global and digital challenges. Studies in pesantren settings, for instance, show that integrating Islamic values with global competencies is crucial to preparing learners who are spiritually grounded and socially responsive in the modern world.

#### 4. Implications for the Digital Transformation Era

In the context of digital transformation, the Islamic Education Curriculum Management Model based on Deep Learning carries the following implications:

- a. Curriculum Responsiveness: The curriculum must be responsive to rapid changes brought by technology and globalization—emphasizing digital literacy, technological ethics, and global collaboration.
- b. Teacher Capacity Building: Teachers need to enhance their competencies in digital pedagogy, deep learning approaches, and the integration of Islamic values into instructional practices.
- c. Digital Infrastructure: Adequate digital infrastructure and access to online or innovative learning platforms must be provided to support effective implementation.
- d. Comprehensive Assessment: Evaluation systems should incorporate 21st-century competencies and Islamic values—not merely rely on traditional examinations.
- e. Institutional Culture Development: Schools and Islamic institutions (madrasahs/pesantrens) should cultivate a culture of deep learning and Islamic values as part of curriculum management. This includes engaging parents, communities, and external stakeholders such as industry and technology partners.
- f. Continuous Curriculum Evaluation: Ongoing evaluation and revision of the curriculum are essential to ensure that Islamic educational institutions remain relevant, competitive, and excellent in the digital era.

“PAI teachers generally have a positive perception of deep learning as an approach capable of deepening understanding and Islamic values meaningfully; however, their readiness to implement it varies and is influenced by competencies, training, technological infrastructure, and institutional policy support (Akhyar, 2025).

#### Theoretical Framework for the Article

Based on the previous discussion, the theoretical framework for this article can be formulated as follows:

1. **Main Variables:** Islamic Education Curriculum Management (PAI): includes planning, implementation, and evaluation. Deep Learning Approach: encompasses deep understanding, reflection, knowledge connection, collaboration, and technology integration.
2. **Integration Concept:** The Model of Islamic Education Curriculum Management Based on Deep Learning in the Digital Transformation Era accommodates Islamic values, 21st-century competencies, and digital technology.
3. **Basic Assumptions:**
  - a. If the PAI curriculum is managed effectively and based on Islamic values, it will lead to excellent educational outcomes.
  - b. If learning applies the deep learning approach, students will gain deeper understanding and develop 21st-century competencies.
  - c. The integration of these two aspects within the context of digital transformation will produce a PAI curriculum model that is not only academically excellent but also spiritually grounded and contextually relevant.

#### **4. Operational Indicators:**

- a. Planning: objectives that include Islamic values and 21st-century competencies; integrative content design.
- b. Implementation: application of deep learning methods, use of digital technology, collaboration, and integration of Islamic values.
- c. Evaluation: student outcomes (religiosity, morality, digital literacy, critical thinking); learning processes (reflection, collaboration, knowledge connection).
- d. Digital Context: technological infrastructure, digital literacy of teachers and students, and curriculum flexibility.

### **B. RESEARCH METHOD**

This study employs a qualitative approach using the library research method. Data sources were obtained from relevant primary and secondary literature, including books on Islamic educational management, international and national journal articles on deep learning, and recent educational policy documents (Dedi Lazuardi, 2017).

The analysis was conducted through content analysis by identifying key patterns and themes to reconstruct a model of curriculum management based on deep learning. This literature-based approach enables the researcher to examine interrelated theories, empirical findings, and policies within the context of curriculum management and Islamic educational technology.

Through a process of comparative analysis and literature synthesis, this study produces a conceptual model that is reflective, integrative, and applicable to the development of Islamic Education (PAI) curricula in the digital era.

### **C. RESULTS AND DISCUSSION**

The analysis indicates that the implementation of deep learning in Islamic Education (PAI) curriculum management requires a paradigm shift in the learning process. The learning orientation must move from a teacher-centered to a student-centered approach. The curriculum management process should focus on four key components: adaptive planning, collaborative implementation, reflective evaluation, and teacher professional development.

The integration of digital technologies—such as academic information systems and learning analytics—further enhances the effectiveness of these processes, supporting data-driven decision-making and continuous improvement in Islamic education management.

#### **1. Reconstruction of the Learning Implementation Stage**

At the planning stage, the curriculum is designed by integrating Islamic values with the principles of deep learning. The curriculum design emphasizes not only content but also reflective and contextual learning strategies. Madrasahs in Karawang are encouraged to develop adaptive curricula that address social issues such as digital ethics, environmental awareness, and social responsibility.

Islamic Education (PAI) teachers play a key role in curriculum development by applying design thinking approaches and conducting student needs analyses. The implementation of learning is directed toward fostering active student participation through project-based learning, case studies, and spiritual reflection. Teachers act as facilitators, guiding students to understand Islamic values within the context of modern

life. For instance, in the theme “Honesty in Digital Transactions,” students explore Islamic jurisprudence (fiqh) and ethical business principles within the framework of the digital world.

## **2. Reconstruction of the Learning Evaluation Stage**

Deep learning based evaluation emphasizes the cognitive, affective, and spiritual dimensions of learning. Teachers employ authentic assessment methods such as digital portfolios, self-reflection, and longitudinal evaluation to monitor students’ progress. Digital evaluation technologies facilitate the collection of accurate data, supporting evidence-based decision-making in the learning process.

## **3. Reconstruction of Teacher Professionalism and Leadership Strengthening Stage**

Teachers and madrasah principals are key actors in the implementation of a deep learning based curriculum. Strengthening their capacity requires training in digital literacy, reflective pedagogy, and transformational leadership. Madrasahs can establish professional learning communities to share best practices in curriculum management. This approach fosters an innovative and collaborative culture within Islamic educational environments (Rochyati, 2025).

## **4. Conceptual Model of Islamic Education (PAI) Curriculum Reconstruction Based on Deep Learning**

The conceptual model of Islamic Education (PAI) curriculum reconstruction based on deep learning emerges as a response to the demands of the digital transformation era, which requires Islamic educational systems to become more adaptive, interactive, and data-driven. This reconstruction does not merely update curriculum content and instructional strategies but also transforms the educational paradigm—from knowledge transfer to meaningful learning that nurtures spiritual awareness, digital ethics, and 21st-century skills.

The deep learning approach provides opportunities for teachers and Islamic educational institutions to understand students’ learning patterns more deeply through data analysis and machine learning algorithms. As a result, the curriculum can be tailored to individual needs, social contexts, and technological developments. Thus, integrating deep learning into PAI curriculum management is expected to produce a personalized, relevant, and character-centered learning model that strengthens Islamic values amid technological disruption.

Conceptually, this reconstruction model positions deep learning as an analytical layer that supports each stage of the curriculum cycle—from needs analysis, learning objectives design, and adaptive digital material development to data-driven evaluation. A deep learning based PAI curriculum focuses not only on cognitive competencies but also on the continuous cultivation of values and religious attitudes through joyful, meaningful, and mindful learning experiences.

Moreover, this reconstruction requires the active involvement of teachers as curriculum designers and learning facilitators who are digitally literate, technologically proficient, and ethically aware of the use of artificial intelligence in Islamic education. By implementing this conceptual model, PAI is expected to become a pioneer in presenting Islamic education that is not only spiritual and humanistic but also technologically intelligent and globally competitive.

## D. CONCLUSION

The reconstruction of Islamic Education (PAI) curriculum management based on deep learning emphasizes the importance of integrating Islamic values, technology, and reflective learning. This model encourages a paradigm shift in Islamic education—from rote memorization to deep, contextual understanding. Through this approach, Islamic educational institutions are expected to produce learners who are knowledgeable, religiously grounded in character, and well-prepared to face global challenges in the digital era.

## DAFTAR PUSTAKA

Mahesa, R., & colleagues. (2025). Implementation of Deep Learning in Islamic Religious Education: Artificial Intelligence, Adaptive Learning, Automatic Evaluation. *International Journal of Islamic Studies*, 4(1), 50–72.

Mardhatillah, Annisa, E. Al. (2022). Pengembangan Kurikulum Pendidikan Agama Islam Dalam Meningkatkan Mutu Pembelajaran Di SMA Muhammadiyah Tanah Grogot. *Jurnal Ilmu Pendidikan Dan Kearifan Lokal (JIPKL)*, 2(1), 1–17.

Munadirin, A., Muslim, R., & Fatah, Z. (2023). Transformation of PAI Learning Through Approaches to Active Deep Learning Experience (ADLX) in the Digital Era. *Nadwa: Jurnal Pendidikan Islam*, 17(2), 45–62. <https://doi.org/10.21580/nw.2023.17.2.26745>

Munzir, M. (2022). Meningkatkan Mutu Pendidikan Islam. *Jurnal Guru Kita PGSD*, 6(4), 594. <https://doi.org/10.24114/jgk.v6i4.39903>

Rozi, B. (2020). Problematika Pendidikan Islam di Era Revolusi Industri 4.0. *Jurnal Pendidikan Islam*, 9(1). <https://doi.org/10.38073/jpi.v9i1.204>

Surahman, S. (2022). Implementasi Manajemen Mutu Pendidikan Islam Menuju Era Society 5.0. *Journal On Teacher Education*, 3(2), 170–182. <https://journal.universitaspahlawan.ac.id/index.php/jote/article/view/3277>  
<https://journal.universitaspahlawan.ac.id/index.php/jote/article/download/3277/2185>

Mahesa, R., & colleagues. (2025). Implementation of Deep Learning in Islamic Religious Education: Artificial Intelligence, Adaptive Learning, Automatic Evaluation. *International Journal of Islamic Studies*, 4(1), 50–72.

Mardhatillah, Annisa, E. Al. (2022). Pengembangan Kurikulum Pendidikan Agama Islam Dalam Meningkatkan Mutu Pembelajaran Di SMA Muhammadiyah Tanah Grogot. *Jurnal Ilmu Pendidikan Dan Kearifan Lokal (JIPKL)*, 2(1), 1–17.

Munadirin, A., Muslim, R., & Fatah, Z. (2023). Transformation of PAI Learning Through Approaches to Active Deep Learning Experience (ADLX) in the Digital Era. *Nadwa: Jurnal Pendidikan Islam*, 17(2), 45–62. <https://doi.org/10.21580/nw.2023.17.2.26745>

Munzir, M. (2022). Meningkatkan Mutu Pendidikan Islam. *Jurnal Guru Kita PGSD*, 6(4), 594. <https://doi.org/10.24114/jgk.v6i4.39903>

Rozi, B. (2020). Problematika Pendidikan Islam di Era Revolusi Industri 4.0. *Jurnal Pendidikan Islam*, 9(1). <https://doi.org/10.38073/jpi.v9i1.204>

Surahman, S. (2022). Implementasi Manajemen Mutu Pendidikan Islam Menuju Era Society 5.0. *Journal On Teacher Education*, 3(2), 170–182.

<https://journal.universitaspahlawan.ac.id/index.php/jote/article/view/3277%0Ahttps://journal.universitaspahlawan.ac.id/index.php/jote/article/download/3277/2185>

Mahesa, R., & colleagues. (2025). Implementation of Deep Learning in Islamic Religious Education: Artificial Intelligence, Adaptive Learning, Automatic Evaluation. *International Journal of Islamic Studies*, 4(1), 50–72.

Mardhatillah, Annisa, E. Al. (2022). Pengembangan Kurikulum Pendidikan Agama Islam Dalam Meningkatkan Mutu Pembelajaran Di SMA Muhammadiyah Tanah Grogot. *Jurnal Ilmu Pendidikan Dan Kearifan Lokal (JIPKL)*, 2(1), 1–17.

Munadirin, A., Muslim, R., & Fatah, Z. (2023). Transformation of PAI Learning Through Approaches to Active Deep Learning Experience (ADLX) in the Digital Era. *Nadwa: Jurnal Pendidikan Islam*, 17(2), 45–62. <https://doi.org/10.21580/nw.2023.17.2.26745>

Munzir, M. (2022). Meningkatkan Mutu Pendidikan Islam. *Jurnal Guru Kita PGSD*, 6(4), 594. <https://doi.org/10.24114/jgk.v6i4.39903>

Rozi, B. (2020). Problematika Pendidikan Islam di Era Revolusi Industri 4.0. *Jurnal Pendidikan Islam*, 9(1). <https://doi.org/10.38073/jpi.v9i1.204>

Surahman, S. (2022). Implementasi Manajemen Mutu Pendidikan Islam Menuju Era Society 5.0. *Journal On Teacher Education*, 3(2), 170–182. <https://journal.universitaspahlawan.ac.id/index.php/jote/article/view/3277%0Ahttps://journal.universitaspahlawan.ac.id/index.php/jote/article/download/3277/2185>

Mahesa, R., & colleagues. (2025). Implementation of Deep Learning in Islamic Religious Education: Artificial Intelligence, Adaptive Learning, Automatic Evaluation. *International Journal of Islamic Studies*, 4(1), 50–72.

Mardhatillah, Annisa, E. Al. (2022). Pengembangan Kurikulum Pendidikan Agama Islam Dalam Meningkatkan Mutu Pembelajaran Di SMA Muhammadiyah Tanah Grogot. *Jurnal Ilmu Pendidikan Dan Kearifan Lokal (JIPKL)*, 2(1), 1–17.

Munadirin, A., Muslim, R., & Fatah, Z. (2023). Transformation of PAI Learning Through Approaches to Active Deep Learning Experience (ADLX) in the Digital Era. *Nadwa: Jurnal Pendidikan Islam*, 17(2), 45–62. <https://doi.org/10.21580/nw.2023.17.2.26745>

Munzir, M. (2022). Meningkatkan Mutu Pendidikan Islam. *Jurnal Guru Kita PGSD*, 6(4), 594. <https://doi.org/10.24114/jgk.v6i4.39903>

Rozi, B. (2020). Problematika Pendidikan Islam di Era Revolusi Industri 4.0. *Jurnal Pendidikan Islam*, 9(1). <https://doi.org/10.38073/jpi.v9i1.204>

Surahman, S. (2022). Implementasi Manajemen Mutu Pendidikan Islam Menuju Era Society 5.0. *Journal On Teacher Education*, 3(2), 170–182. <https://journal.universitaspahlawan.ac.id/index.php/jote/article/view/3277%0Ahttps://journal.universitaspahlawan.ac.id/index.php/jote/article/download/3277/2185>