

Strategies to Strengthen Islamic Character through Islamic Education Learning Based on Artificial Intelligence

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Abstract

The development of digital technology, especially in the field of artificial intelligence (AI), has created new opportunities to improve the quality of Islamic Religious Education (PAI) learning. One important opportunity in the use of AI for PAI learning is strengthening students' Islamic character. This study aims to formulate AI-based PAI learning strategies to instill Islamic values such as honesty (*ṣidq*), faith (*īmān*), responsibility (*amānah*), and social attention (*khidmah*). The method used in this study is qualitative through a literature review approach based on various academic sources that discuss the use of AI in education and the formation of Islamic character. The data were analyzed descriptively to identify the forms, strategies, and implications of AI integration in PAI learning activities. The results of the literature review indicate that AI can support the development of learning media and learning services in PAI, including AI-assisted presentations and visual materials as well as AI-supported learning interactions. The use of AI-based media enables teachers to deliver Islamic moral and spiritual values through presentations, infographics, visual narratives, and reflective videos that are more engaging and easier for students to understand. In addition, AI has the potential to facilitate learning that is more adaptive and can be adjusted to students' needs and characteristics. In conclusion, integrating AI in PAI learning, particularly to support the development of learning media and adaptive learning experiences, has the potential to strengthen students' Islamic character. At the same time, implementation still requires adequate infrastructure and stakeholder readiness so that AI functions as a supportive tool and does not replace moral guidance in Islamic education.

Keywords: *Artificial Intelligence; Islamic Religious Education; Digital Learning; Character Education*

Abstrak

Perkembangan teknologi digital, terutama dalam bidang kecerdasan buatan (Artificial Intelligence atau AI), telah menciptakan peluang baru untuk meningkatkan kualitas pembelajaran Pendidikan Agama Islam (PAI). Salah satu peluang penting dalam pemanfaatan AI pada pembelajaran PAI adalah penguatan karakter Islami peserta didik. Penelitian ini bertujuan untuk merumuskan strategi pembelajaran PAI berbasis AI guna menanamkan nilai-nilai Islam, seperti kejujuran (*ṣidq*), iman (*īmān*), tanggung jawab (*amānah*), dan kepedulian sosial (*khidmah*). Metode yang digunakan dalam penelitian ini adalah pendekatan kualitatif melalui studi literatur terhadap berbagai sumber akademik yang membahas pemanfaatan AI dalam pendidikan serta pembentukan karakter Islami. Data dianalisis secara deskriptif untuk

mengidentifikasi bentuk, strategi, dan implikasi integrasi AI dalam pembelajaran PAI. Hasil kajian literatur menunjukkan bahwa AI dapat mendukung pengembangan media pembelajaran dan layanan pembelajaran dalam PAI, termasuk presentasi dan materi visual berbantuan AI serta dukungan interaksi belajar berbasis AI. Pemanfaatan media berbasis AI memungkinkan guru menyajikan nilai-nilai moral dan spiritual Islam melalui presentasi, infografis, narasi visual, dan video reflektif yang lebih menarik serta mudah dipahami oleh peserta didik. Selain itu, AI berpotensi memfasilitasi pembelajaran yang lebih adaptif dan dapat disesuaikan dengan kebutuhan serta karakteristik peserta didik. Dengan demikian, integrasi AI dalam pembelajaran PAI, khususnya untuk mendukung pengembangan media pembelajaran dan pengalaman belajar yang adaptif, memiliki potensi sebagai pendekatan yang efektif dalam memperkuat karakter Islami peserta didik. Namun, implementasinya tetap memerlukan dukungan infrastruktur yang memadai dan kesiapan para pemangku kepentingan agar AI berfungsi sebagai alat bantu dan tidak menggantikan peran pembinaan moral dalam pendidikan Islam.

Kata Kunci: Kecerdasan Buatan; Pendidikan Agama Islam; Pembelajaran Digital; Pendidikan Karakter

A. Introduction

The development of information and communication technology has brought significant changes to education. These changes have accelerated with the emergence of artificial intelligence (AI), which enables learning processes to become more personalized, flexible, and interactive.¹ This innovation is a great opportunity for various disciplines, including Islamic Religious Education (PAI), in presenting learning that is not only knowledge-oriented, but also on the formation of strong Islamic characters.²

This innovation not only has a great impact on various disciplines, but also provides a great opportunity to improve the quality of Islamic Religious Education (PAI). PAI focuses not only on the transfer of religious knowledge, but also on the formation of a noble Islamic character. In this context, AI plays an important role in strengthening and accelerating the internalization of Islamic values in students, while providing new relevant and contextual ways of conveying religious teachings. AI allows religious education to be based not only on textual knowledge, but also on character learning that involves Islamic values directly in students' daily lives.

¹ L Chen, P Chen, and Z Lin, "Artificial Intelligence in Education: A Review," *IEEE Access* 8 (2020): 75264–78, <https://doi.org/10.1109/ACCESS.2020.2988510>; Olga Tapalova and Nadezhda Zhiyenbayeva, "Artificial Intelligence in Education: AIED for Personalised Learning Pathways," *Electronic Journal of E-Learning* 20, no. 5 (December 9, 2022): 639–53, <https://doi.org/10.34190/ejel.20.5.2597>.

² Irfan Ahmad Zain et al., "Artificial Intelligence-Based Learning Media in Islamic Religious Education Learning," *Research Horizon* 5, no. 6 SE-Articles (December 31, 2025): 3031–40, <https://journal.lifescifi.com/index.php/RH/article/view/963>; Luthfi Aulia Hidayat, Elan Sumarna, and Pandu Hyangsewu, "Inovasi Pembelajaran PAI: Penerapan Kecerdasan Buatan Untuk Meningkatkan Motivasi Siswa," *Journal of Education Research* 5, no. 4 (November 21, 2024): 5632–40, <https://doi.org/10.37985/jer.v5i4.1846>.

Islamic religious education has the main mission of forming Muslim individuals who have faith, piety, and noble character. However, in the midst of the challenges of globalization, the free flow of information, and the moral crisis of the younger generation, character education based on Islamic values must be designed with a contextual and adaptive approach to the development of the times.³ In this context, the application of AI in PAI learning can be a strategic alternative in strengthening Islamic character through technology that is close to the world of students.

In the midst of these dynamics, character education based on Islamic values must be designed with a more contextual, adaptive, and open approach to changing times. Therefore, the application of artificial intelligence in Islamic education can be a very effective strategic alternative. This technology not only offers efficiency in terms of the management of learning materials, but also allows for the indispensable personalization to form an Islamic character that suits the needs and personality of each student.

In practice, the application of AI in Islamic Religious Education learning can be realized in many ways. The presence of artificial intelligence can design learning to be effective, fun and interactive. One form of its application is chatbot Islami who can provide a direct question and answer service on religious issues or explain the basic principles of Islam in an interesting and easy-to-understand way. The chatbot can also provide real-time feedback to students, which speeds up the learning process and helps overcome difficulties in understanding the material.

Moreover, Adaptive Learning Systems AI-based ones can be implemented to personalize learning materials according to students' ability levels and needs. This system is able to analyze students' learning styles and comprehension speeds, then adjust the material provided to make it easier to understand. With this approach, students can learn according to their level of understanding, rather than based on generally set time constraints. This not only enhances students' understanding of PAI material, but also provides an opportunity for them to internalize Islamic values more deeply. The presence of artificial intelligence will make it easier for students to better understand the material taught with adaptive learning experiences.

AI-based gamification technology can also be applied to teach Islamic moral values and morals in a more fun way. In gamification-based learning, students can learn through

³ Murdianto Murdianto, *Pendidikan Karakter Islami: Membangun Generasi Berakhlak Mulia Di Era Digital* (Bantul: Lembaga Ladang Kata, 2024); Anis Zohriah et al., "Islamic Education Dynamics in the Globalization Era," *International Journal of Engineering Business and Social Science* 3, no. 5 (June 5, 2025): 1–11, <https://doi.org/10.58451/ijebss.v3i5.241>.

educational games, which at the same time teaches them about values such as honesty, trust, responsibility, and social care. The game is not only entertaining, but it also provides an opportunity for students to apply those values in more real and relevant situations.

In addition, AI can also be used to provide Automatic character evaluation. For example, AI platforms can analyze students' behavior patterns in interacting with learning materials and provide feedback on the extent to which their Islamic character has developed. This provides an opportunity for educators to pay special attention to students who may need further guidance in strengthening their Islamic values.⁴

The use of AI in religious education can be realized through various forms, such as Islamic chatbots, adaptive learning systems, to gamification of moral values. This technology allows students to learn according to their needs and styles; while also getting a more interactive and reflective learning experience. Therefore, a special strategy is needed to integrate AI wisely in PAI learning to strengthen students' Islamic character effectively and relevant to the needs of the times.

Therefore, a specific strategy is needed to integrate AI technology in PAI learning effectively and wisely. This strategy must ensure that technology is not only used to meet the needs of cognitive learning, but also to shape the Islamic character of students as a whole. Thus, AI-based PAI learning is not only relevant to the challenges of the times, but can also strengthen deep moral values among the younger generation, in accordance with the teachings of Islam that *are Rahmatan Lil-'Alamin*.

The research trend on strengthening Islamic character in Islamic religious education lessons encompasses several other related topics. Several related topics that have been studied by previous researchers discuss the opportunities and challenges of AI for the younger generation, AI-based adaptive learning on students' academic development, the relevance of AI in theological studies, and the influence of AI on students' intellectual intelligence. A research gap that researchers can currently fill is the lack of research on the correlation of Artificial Intelligence in the formation of Islamic Character in Islamic Religious Education learning, and this can be a novelty in this research. This research's contribution to the development of science is its ability to provide a comprehensive understanding of the use of artificial intelligence in

⁴ Rohmahjimi Sholihah, "PENGUNAAN ARTIFICIAL INTELLIGENCE (AI) DALAM PENINGKATAN KUALITAS PEMBELAJARAN PENDIDIKAN AGAMA ISLAM," *Jurnal Jaringan Penelitian Pengembangan Penerapan Inovasi Pendidikan (Jarlitbang)*, December 28, 2024, 207–18, <https://doi.org/10.59344/jarlitbang.v10i2.164>; Riordan Alfredo et al., "Human-Centred Learning Analytics and AI in Education: A Systematic Literature Review," *Computers and Education: Artificial Intelligence* 6 (June 2024): 100215, <https://doi.org/10.1016/j.caeai.2024.100215>.

supporting adaptive Islamic religious education learning and can make it easier for students to strengthen their Islamic character.

B. Research Methods

The method applied in this study is a literature review. The data collection technique is carried out through searching and analyzing various literature sources, including scientific books, journal articles both national and international, as well as other relevant publications that discuss the application of Artificial Intelligence in education, especially in the learning of Islamic Religious Education and strengthening Islamic character. These sources are carefully selected, then compared and critically analyzed to obtain data related to the research objectives. Data analysis was carried out in a descriptive-analytical manner to identify the forms, strategies, and implications of the use of AI in Islamic Religious Education learning activities based on Islamic values. The focus of this research is on the contribution of artificial intelligence technology in increasing the effectiveness of adaptive Islamic Religious Education learning and oriented towards strengthening students' Islamic character, such as honesty, faith, responsibility, and social concern in the digital era.

C. Results and Discussion

1. Strengthening Islamic Character in Islamic Religious Education

The importance of Islamic character in education does not rest solely on shaping individuals who comply with ritual obligations, but also on forming human beings with integrity, noble conduct, and the capacity to become a blessing within their environment. Islamic character functions as the foundation for all dimensions of a Muslim's life, whether in relation to Allah (ḥabl min Allāh), to fellow human beings (ḥabl min al-nās), or to the wider universe.⁵

A person may acquire Islamic character through various pathways, one of which develops through the learning process in Islamic Religious Education from an early age. Islamic education does not merely transmit knowledge; it also aims to cultivate a civilized person (insān 'ādīb). In this context, the concept of *ta'dīb* emphasizes that knowledge should not remain abstract, but must generate morality, good character, and personal responsibility. Thus,

⁵ Darlan Darlan, Sagaf S. Pettalongi, and Rustina Rustina, "The Roles of Islamic Education in Building Students' Character within Indonesia Public Schools," *INTERNATIONAL JOURNAL OF CONTEMPORARY ISLAMIC EDUCATION* 3, no. 2 (October 31, 2021): 21–39, <https://doi.org/10.24239/ijcied.Vol3.Iss2.37>; Aep Saepudin, "Character Education in Islam: The Role of Teachers in Building Islamic Personality in Elementary Schools," *International Journal of Science and Society* 5, no. 5 (December 27, 2023): 1172–85, <https://doi.org/10.54783/ijssoc.v5i5.1266>.

Islamic education positions moral formation as an inherent consequence of learning, not as an additional component placed outside the learning process.⁶

Islamic education therefore plays a constructive role in strengthening Islamic character. When a person possesses a solid religious character, they tend to bring Islamic teachings into both personal and social spheres of life. In personal affairs, strong Islamic character encourages individuals to live in accordance with Islamic guidance and ethical standards. In social affairs, it supports the development of moderation, enabling individuals to interact responsibly, avoid excess, and maintain balanced attitudes in diverse social settings.⁷

The positive impact of strengthening Islamic character becomes visible through the individual's daily patterns of behavior, both as a personal subject and as a social being. Individuals with strong Islamic character typically align their routines with Islamic commands and values. At the same time, they tend to develop a balanced outlook, strong tolerance, and the ability to accept differences while upholding human dignity within plural societies. Such dispositions contribute to social stability and harmony, including in relations within and across religious communities.

Strengthening Islamic character within Islamic education remains crucial for producing individuals who not only master religious knowledge, but also translate Islamic values into daily practices. Islamic character encompasses moral and spiritual dimensions—such as honesty, patience, discipline, and fairness—which manifest in concrete actions and observable behavior. For this reason, Islamic Religious Education (PAI) carries an essential mandate: ensuring that values move beyond the theoretical level and become internalized as lived dispositions.

PAI fosters this internalization through several approaches, including exemplary conduct from teachers, the reinforcement of moral messages within learning materials, and experiential learning that allows students to practice values in real contexts. Educators need to model religious values consistently, because in Islam the pursuit of knowledge aims not only at cognitive acquisition but also at the formation of noble character.⁸ Value reinforcement, therefore, cannot rely on verbal instruction alone; it must be demonstrated through attitudes

⁶ J. Mark Halstead, "Islamic Values: A Distinctive Framework for Moral Education?," *Journal of Moral Education* 36, no. 3 (September 21, 2007): 283–96, <https://doi.org/10.1080/03057240701643056>.

⁷ Darlan, S. Pettalongi, and Rustina, "The Roles of Islamic Education in Building Students' Character within Indonesia Public Schools"; Miftahuddin Miftahuddin, Aman Aman, and Rhoma Dwi Aria Yuliantri, "Islamic Character Education Model: An in-Depth Analysis for Islamic Boarding School," *Jurnal Cakrawala Pendidikan* 43, no. 2 (May 31, 2024): 370–80, <https://doi.org/10.21831/cp.v43i2.66516>.

⁸ Musrifah, "Pendidikan Karakter Dalam Perspektif Islam," *Edukasia Islamika* 1, no. 1 SE-Artikel (August 14, 2023): 119–33, <https://e-journal.uingusdur.ac.id/edukasiaislamika/article/view/1275>.

and actions in everyday interactions. In line with this orientation, Islamic religious education does not stop at teaching doctrinal and theoretical dimensions, but integrates moral and ethical values that students are expected to practice—reflecting an educational approach that emphasizes the unity of knowledge (*‘ilm*) and righteous action (*‘amal*).⁹

2. Artificial Intelligence (AI) in Education

Artificial Intelligence (AI) is a technology used to mimic human intelligence in a machine or computer program. AI has been applied in various sectors, including education, to enhance the learning and teaching experience.¹⁰ Artificial Intelligence (AI) is here with the aim of transforming education by taking advantage of advances in digital technology in learning. Artificial Intelligence (AI) also provides convenience for teachers in administrative processes and in preparing student assessment materials. Another benefit is that students can obtain learning materials and teaching media that are digital and interactive. Artificial intelligence provides many conveniences for teachers in teaching and offers easy access to learning for students.

AI in education has great potential to improve the quality of learning, for example through adaptive learning, where AI technology can personalize learning for students by delivering materials according to their abilities. This system can identify each student's strengths and weaknesses and adjust the material provided to make it more effective.¹¹ Another example is the use of AI-based learning assistants, where AI-based applications such as chatbots can provide direct tutoring, assist students in learning Islam, or help solve problems in understanding teaching materials.¹²

3. Strengthening Islamic Character through AI-Based PAI Learning

Integrating AI in Islamic Religious Education learning offers a variety of significant advantages in strengthening students' Islamic character. The use of AI provides a new way of learning for students so they can learn more deeply and more easily, while still prioritizing the advancement of science and technology in the learning process. With AI support, learning can

⁹ Bucky Wibawa Karya Guna et al., “BUILDING MORALITY AND ETHICS THROUGH ISLAMIC RELIGIOUS EDUCATION IN SCHOOLS,” *IJGIE (International Journal of Graduate of Islamic Education)* 5, no. 1 (February 9, 2024): 14–24, <https://doi.org/10.37567/ijgie.v5i1.2685>.

¹⁰ Olaf Zawacki-Richter et al., “Systematic Review of Research on Artificial Intelligence Applications in Higher Education – Where Are the Educators?,” *International Journal of Educational Technology in Higher Education* 16, no. 1 (December 28, 2019): 39, <https://doi.org/10.1186/s41239-019-0171-0>.

¹¹ R. Hasibuan, *Pengaruh Artificial Intelligence dalam Pembelajaran Pendidikan Agama Islam* (Jakarta: Pustaka Islam, 2020).

¹² Ahmad Bustomi, *Teknologi Pendidikan Berbasis Artificial Intelligence (AI)*, 2023; Wayne Holmes, Maya Bialik, and Charles Fadel, *Artificial Intelligence in Education. Promise and Implications for Teaching and Learning.*, 2019.

become more engaging, more accessible, and more responsive to students' diverse needs, so that the values taught are not only understood at the conceptual level but can also be reinforced through continuous learning experiences.

One way that can be used is tailored learning, where AI can identify students' individual needs and provide material that is more appropriate to their level of understanding as well as their personal character.¹³ For example, students who need more reinforcement in the character of patience can receive relevant material from the Qur'an and Hadith regarding patience, presented in forms that suit their learning pace. Another way is AI-based simulation for Islamic characters, where AI can be used to create life simulations that depict situations requiring decision-making based on Islamic teachings, such as how to interact with others, resolve conflicts, or help others in need, so students can practice applying Islamic values in realistic scenarios.

4. Benefits of Using AI in PAI Learning

The use of AI in Islamic Religious Education (PAI) can bring many benefits in improving the quality of learning and strengthening Islamic character. AI allows a more personalized learning experience according to each student's needs and abilities, for example by providing assessments or feedback that are more appropriate for character development and for values that need to be reinforced in students.¹⁴ In addition, AI can improve efficiency in the assessment procedure because AI technology enables automated assessments that are quicker and more accurate, which allows teachers to provide more timely and more effective feedback in assessing the strengthening of students' Islamic character.¹⁵

Another benefit is wider educational accessibility. AI-based learning enables students from a variety of backgrounds, including those in remote areas, to access Islamic Religious Education materials more easily and more flexibly, so that learning opportunities are not limited by distance or availability of resources.¹⁶

¹³ Le Ying Tan et al., "Artificial Intelligence-Enabled Adaptive Learning Platforms: A Review," *Computers and Education: Artificial Intelligence* 9 (December 2025): 100429, <https://doi.org/10.1016/j.caeai.2025.100429>.

¹⁴ KURT VanLEHN, "The Relative Effectiveness of Human Tutoring, Intelligent Tutoring Systems, and Other Tutoring Systems," *Educational Psychologist* 46, no. 4 (October 2011): 197–221, <https://doi.org/10.1080/00461520.2011.611369>; Husam Yaseen et al., "The Impact of Adaptive Learning Technologies, Personalized Feedback, and Interactive AI Tools on Student Engagement: The Moderating Role of Digital Literacy," *Sustainability* 17, no. 3 (January 30, 2025): 1133, <https://doi.org/10.3390/su17031133>.

¹⁵ Pravin R. Kshirsagar et al., "Human Intelligence Analysis through Perception of AI in Teaching and Learning," ed. Arpit Bhardwaj, *Computational Intelligence and Neuroscience 2022* (June 11, 2022): 1–9, <https://doi.org/10.1155/2022/9160727>.

¹⁶ Amilusholihah Amilusholihah and Narendra Jumadil Haikal Ramadhan, "Exploring The Implementation of Artificial Intelligence in Islamic Education: A Systematic Literature Review," *Ngaji: Jurnal Pendidikan Islam* 5, no. 1 (June 11, 2025): 3–17, <https://doi.org/10.24260/ngaji.v5i1.95>.

5. Challenges in the Implementation of AI in PAI

Although the potential for the application of AI in Islamic Religious Education (PAI) is huge, there are a number of challenges that must be faced. One challenge is limited infrastructure, because not all schools or educational institutions have the facilities and supporting infrastructure needed to use AI technology in learning. Limited access to devices, internet connectivity, and supporting systems can hinder the implementation of AI on a wider scale and create unequal opportunities between schools.¹⁷

Another challenge is resistance to new technologies. Some parties, including educators and parents, may be concerned about the possible negative impact of technology use in education, especially if it is perceived as reducing direct guidance or leading to the neglect of religious values.¹⁸ These concerns can influence acceptance and readiness to adopt AI, so implementation needs to be accompanied by clear direction, appropriate supervision, and an emphasis that technology is used to support, not replace, the core values and educational goals of PAI.

D. Conclusion

This study, based on a literature review, indicates that integrating Artificial Intelligence (AI) in Islamic Religious Education (PAI) learning has strong potential to strengthen students' Islamic character. AI supports a more personalized, adaptive, and engaging learning process that can facilitate the internalization of key values such as honesty (*ṣidq*), faith (*īmān*), responsibility (*amānah*), and social concern (*khidmah*). However, the implementation of AI in PAI still faces major challenges, particularly limited infrastructure and resistance among stakeholders, including educators and parents, regarding the possible impact of technology on religious values. Therefore, adequate technological facilities and teacher capacity-building are needed so that AI functions as a supportive tool, not a substitute for moral guidance and religious mentoring. Further research is recommended to develop and evaluate AI-based applications that are specifically designed for Islamic character education in order to support the formation of an intelligent and noble generation.

¹⁷ Lourdu Vesna, "Digital Divide in AI-Powered Education: Challenges and Solutions for Equitable Learning," *Journal of Information Systems Engineering and Management* 10, no. 21s (March 14, 2025): 300–308, <https://doi.org/10.52783/jisem.v10i21s.3327>; Badriello Chenny Waita, Trivena Apriska Yiswi, and Ariella Kristiahadi, "Dampak Artificial Intelligence (Ai) Terhadap Pendidikan Di Indonesia," *Jurnal Pendidikan Indonesia* 6, no. 7 (July 22, 2025): 3112–21, <https://doi.org/10.59141/japendi.v6i7.8433>.

¹⁸ Peggy A. Ertmer and Anne T. Ottenbreit-Leftwich, "Teacher Technology Change," *Journal of Research on Technology in Education* 42, no. 3 (March 2010): 255–84, <https://doi.org/10.1080/15391523.2010.10782551>; Marko Teräs, "Education and Technology: Key Issues and Debates," *International Review of Education* 68, no. 4 (August 5, 2022): 635–36, <https://doi.org/10.1007/s11159-022-09971-9>.

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