

Integrating AI and Pragmatic Education in Muslim Learning

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ABSTRACT

This paper explores the integration of Pragmatism and Artificial Intelligence (AI) within the context of Muslim education, aiming to bridge the gap between traditional Islamic educational principles and modern, technology-driven learning methodologies. Pragmatism, with its focus on practical, experience-based learning, closely aligns with Islamic educational values that emphasise knowledge, reflection, and application in real-life scenarios. This research examines how AI can enhance the pragmatics of Islamic education by providing personalised learning experiences, fostering critical thinking, and enabling adaptive learning environments. AI tools such as intelligent tutoring systems, natural language processing, and virtual Islamic teaching assistants can offer students tailored educational pathways that respect Islamic teachings while promoting practical skills. The paper argues that the synergy between Pragmatism and AI, within an Islamic framework, can redefine educational paradigms—making Islamic learning more accessible, engaging, and relevant to contemporary challenges. It concludes with recommendations on how educational institutions, scholars, and technologists can collaborate to create AI-powered educational systems that honour both Islamic values and the principles of Pragmatism. Furthermore, this paper investigates how integrating Pragmatism and AI can enhance the relevance and effectiveness of Muslim education in the 21st century. It addresses the challenge of harmonising traditional Islamic educational values—such as the pursuit of knowledge, reflection, and real-world application—with emerging digital learning tools. Pragmatism, with its emphasis on experiential and purpose-driven education, offers a natural synergy with Islamic pedagogical principles. By leveraging AI technologies—including intelligent tutoring systems, natural language processing, and virtual teaching assistants—this research demonstrates how personalised, adaptive, and values-aligned learning environments can be developed. These AI-driven systems not only respect the foundational tenets of Islamic education but also cultivate critical thinking and practical skills essential for contemporary life. The paper proposes a forward-looking educational paradigm that bridges classical and modern learning approaches, concluding with actionable recommendations for educators, scholars, and technologists to collaboratively implement AI solutions that honour both Islamic values and pragmatic educational goals.

Keywords: Muslim Education, Pragmatism, Artificial Intelligence, Islamic Educational Values, Pragmatic Learning. phrases

INTRODUCTION

A possible solution to balancing traditional ideals with modern teaching methods is the incorporation of pragmatism and artificial intelligence (AI) into Islamic education. Islamic educational principles, which highly value knowledge, introspection, and practical application, align well with pragmatism's emphasis on experiential and hands-on learning. AI technologies can further strengthen this synergy by offering personalised learning experiences, fostering critical thinking, and supporting adaptable learning environments. The integration of AI and pragmatism in Islamic education presents an opportunity to combine advanced technology with traditional pedagogical approaches.

This study explores how AI tools such as virtual teaching assistants, natural language processing, and intelligent tutoring systems can enhance Islamic education by providing specialised learning pathways that uphold Islamic principles while promoting real-world skills.

Pragmatism's focus on experiential and practical learning resonates with Islamic educational ideals, which prioritise knowledge, reflection, and application in real-life contexts. Research indicates that many Muslims in

Malaysia believe that aspects of pragmatism are consistent with Islamic teachings and regard it as a valuable tool that, when guided by religious principles, can support modern living without compromising fundamental values. Scholars also highlight the importance of critically understanding pragmatism to ensure its application remains aligned with Islamic ethics. In promoting this understanding, educational institutions play a pivotal role.

By incorporating AI through tools such as intelligent tutoring systems, virtual teaching assistants, and natural language processing, Islamic education can offer personalised learning pathways that preserve traditional values while supporting the development of practical skills. Therefore, the fusion of pragmatism and AI provides a promising framework for advancing Islamic education in a manner that embraces innovation while remaining rooted in its foundational principles.

LITERATURE REVIEW

There has been an increase in scholarly interest in the relationship between Islamic education and contemporary teaching methods. The incorporation of pragmatism, a philosophy that prioritises hands-on learning, critical thinking, and the practical application of knowledge, is essential to this discussion. According to scholars, Islamic education does not necessarily conflict with pragmatic principles, as it traditionally emphasises knowledge ('ilm), contemplation (tafakkur), and action ('amal) (Hashim, 2022). In fact, there is considerable overlap, particularly in how both frameworks support meaningful learning experiences and real-world engagement.

The study Muslim Understanding of Pragmatism and Its Application in Malaysia by Hashim (2022) investigates how Malaysian Muslims view and apply pragmatism within their religious and cultural contexts. The study reveals a nuanced understanding: some perceive pragmatism as a Western concept that may conflict with Islamic principles, while others consider its practical orientation as naturally aligned with Islam's emphasis on moral conduct and contextual sensitivity. Importantly, the study highlights the necessity of critical engagement, urging Muslim educators and policymakers to adopt practical approaches selectively and in alignment with Islamic values.

The growing use of artificial intelligence (AI) in educational settings is occurring alongside the increased emphasis on pragmatism in pedagogical discourse. AI solutions, including virtual teaching assistants, intelligent tutoring systems, and natural language processing tools, offer new opportunities for personalised instruction, adaptive feedback, and enhanced student engagement. These technologies complement pragmatic educational models, which focus on flexible, learner-centred, and outcomes-based approaches. According to academic literature, AI has the potential to transform Islamic education by enabling differentiated learning pathways that cater to individual learners while reinforcing Islamic values and principles such as independent inquiry, ethical reasoning, and critical thinking.

Furthermore, recent studies illustrate how Islamic education can remain relevant in the twenty-first century through the integration of pragmatism and artificial intelligence. As global education systems increasingly shift toward competency-based and digital models, Islamic educational institutions face growing pressure to innovate while maintaining their ethical and spiritual foundations. The combination of AI capabilities with the pragmatic framework offers a promising solution that modernises Islamic education while reaffirming its core mission of nurturing morally responsible and well-rounded individuals.

In addition, there is a rising movement to integrate AI and coding education into Islamic curricula. By enhancing teaching, accessibility, and learner autonomy, this approach equips students with digital literacy skills while maintaining a strong foundation in Islamic beliefs and worldview. These educational innovations are viewed as essential for preparing students to navigate the demands of a technologically advanced society alongside their spiritual responsibilities. Through the fusion of AI developments and practical teaching strategies, Islamic education can evolve into a model that respects religious traditions while embracing the transformative potential of modern pedagogy. This integration ensures that Islamic education remains relevant, responsive, and rooted in its essential values, producing learners who possess both ethical integrity and practical competence.

METHODOLOGY

With an emphasis on its implementation in the Malaysian educational system, this study uses a qualitative research design to investigate how pragmatism and artificial intelligence (AI) can be integrated into Islamic teaching. The purpose of the study is to ascertain how educators, curriculum designers, and legislators view the compatibility of Islamic principles, practical teaching methods, and the application of artificial intelligence (AI) in religious education.

Design of Research

To offer comprehensive insights into particular Islamic educational institutions in Malaysia that have started implementing AI tools and learner-centered pedagogies, a case study approach was used. The investigation of how theoretical concepts are used in actual educational settings is made possible by this design.

Data Collection

Three primary methods were employed to gather data:

1. Semi-structured interviews with:

- Islamic education teachers
- School administrators
- Curriculum designers
- AI integration consultants in education

2. Document analysis, including:

- School curriculum frameworks
- Lesson plans incorporating coding and AI
- Institutional and governmental policy documents related to Islamic education reform

3. Classroom observations in selected institutions experimenting with AI-based learning tools (such as chatbot-based assistants, Qur'an memorisation applications, and intelligent tutoring systems).

Sampling

Purposeful sampling was used to select participants with direct experience in implementing pragmatic teaching methods within religious education or integrating AI into Islamic curricula. Participants were drawn from both public and private Islamic institutions, including independent tahfiz schools and schools affiliated with the Ministry of Education.

FINDINGS AND DISCUSSION

Several key themes emerged from the analysis of interview transcripts, curriculum documents, and classroom observations regarding the integration of pragmatism and artificial intelligence (AI) in Islamic education. These themes highlight evolving educator perspectives, practical implementations of AI, and broader implications for maintaining Islamic principles in modern educational settings.

Positive Reception of AI in Religious Education

Most participants expressed a positive view towards the integration of AI, especially in terms of enhancing student engagement and personalising instruction. Teachers noted that AI tools, such as automated quiz platforms and Qur'an memorisation applications, allowed students to practise independently while receiving instant feedback.

“When they see results right away, students become more motivated. Instead of just repeating tasks, AI tools enable us to concentrate on spiritual growth and mentoring.”

— Interviewee A, Teacher of Islamic Studies

These findings align with prior studies (Rahman et al., 2021), which demonstrate that AI can enhance Islamic education by promoting self-directed learning and providing customised support without compromising religious values.

Alignment Between Islamic Pedagogy and Pragmatism

Participants widely agreed that Islamic teachings align with pragmatic educational methods, particularly experiential and student-centred learning. Many referenced the practices of Prophet Muhammad (PBUH), which often involved discussion, reflection, and real-world application.

“Islam is a very pragmatic religion. Pragmatism is not alien; rather, it is a component of the Sunnah if we are instructing pupils on how to behave in accordance with Islam in the actual world.”

— Interviewee B, Curriculum Developer

This supports Hashim’s (2022) assertion that, when rooted in Islamic values, pragmatism offers a valuable framework for modernising religious education without compromising faith.

Challenges in Infrastructure and Teacher Preparedness

Despite the enthusiasm, several participants noted obstacles to implementation, including:

- Limited digital infrastructure in Islamic schools located in rural areas
- Lack of teacher training in AI technologies
- Uncertainty about integrating traditional pedagogy with technological tools

These challenges indicate that, while the potential is clear, systemic support is necessary to ensure equitable and effective adoption of AI in Islamic education.

Preserving Islamic Values Amid Technological Advancement

A recurring theme was the importance of safeguarding Islamic identity during technological integration. Teachers emphasised the need for Islamic-content-based AI tools and ethical safeguards, expressing caution towards technologies developed in non-Muslim contexts.

“Especially when it comes to topics like Fiqh and Akhlaq, we require AI tools that are created with our values in mind.”

— Interviewee C, School Principal

This finding aligns with existing literature that advocates for a contextualised application of AI and pragmatism (Yusof et al., 2020), ensuring that educational tools uphold both theological authenticity and technical standards.

Promoting Practical Skills Through AI and Pragmatism in an Islamic Context.

Finally, many participants felt that combining AI with pragmatic teaching methods could prepare students for both material success and spiritual fulfilment. Students are being equipped to live their faith in contemporary, technology-driven environments by learning to apply Islamic teachings practically.

This reflects the holistic vision of Islamic education, which aims to cultivate both fard kifayah (communal responsibilities) and fard ‘ayn (personal religious obligations) through the use of modern pedagogical tools.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Focusing on its application within the Malaysian context, this study explored the integration of pragmatism and artificial intelligence (AI) into Islamic education. The findings indicate that educators and curriculum designers are increasingly recognising the potential synergy between AI technologies, experiential learning, and Islamic pedagogical principles. While Islamic education is rooted in a rich historical tradition, participants agreed that its core principles, particularly the emphasis on practical knowledge, reflection, and real-life application, are compatible with the objectives of pragmatic education.

The study also revealed that AI tools can significantly enhance the quality of instruction by enabling personalised learning, increasing student engagement, and allowing educators to focus more on moral development and mentorship. However, for this integration to be effective, it is necessary to address infrastructural readiness, teacher training, and the development of AI content grounded in Islamic values. Although challenges remain, a contextualised and ethically guided approach presents a viable way forward that is both innovative and faithful to the Islamic tradition.

Recommendations

Based on the findings, the following recommendations are presented:

- **Develop AI resources specifically for Islamic education**

Educational technologists should collaborate with Islamic scholars to design AI platforms such as Qur'an learning applications and Fiqh tutoring systems that are both pedagogically effective and theologically sound.

- **Provide continuous professional development for educators**

Ministries of education and school administrators should invest in ongoing training programmes focused on the use of AI tools, digital pedagogy, and strategies for integrating these technologies into Islamic teaching.

- **Ensure equitable access to digital infrastructure**

Governments and non-governmental organisations should work together to bridge the digital divide and ensure that all learners, particularly those in underfunded or rural Islamic schools, benefit from AI-supported education.

- **Establish a values-based framework for AI implementation**

The application of AI in Islamic education should be governed by ethical standards that ensure all content reflects Islamic moral values and supports spiritual development.

- **Encourage curriculum reform based on practical and learner-focused approaches**

Islamic educational institutions should update their curricula to include real-world applications, problem-solving activities, and digital literacy, all informed by pragmatic philosophy and the Islamic worldview.

In conclusion, combining AI and pragmatism presents a significant opportunity to modernise Islamic education in a way that remains faithful to its spiritual foundations. If applied thoughtfully and ethically, this integration can produce learners who are not only skilled in modern disciplines but also morally conscious, independent, and firmly grounded in Islamic values.

REFERENCES

1. Hashim, S. M. b. (2022). Muslim understanding of pragmatism and its application in Malaysia: A critical study. In Proceedings of the International Conference on Communication, Language, Education

- and Social Sciences (CLESS 2022) (pp. 65–70). Atlantis Press. https://doi.org/10.2991/978-2-494069-61-9_8
2. Rahman, A., Ali, M., & Al-Azad, M. (2021). Artificial intelligence usage in higher education: Academicians' perspective. *International Journal of Academic Research in Business and Social Sciences*, 11(6), 1–12.
 3. Shogar, I. A. A., & Che Azemin, M. Z. (2024). Challenges and opportunities of artificial intelligence technologies in Islamic education systems. *Revelation and Science*, 14(2).
 4. Salim, M. A., & Aditya, R. B. (2025). Integration of artificial intelligence in Islamic education: Trends, methods, and challenges in the digital era. *Journal of Modern Islamic Studies and Culture*, 3(1).
 5. Febrian, F. (2023). The integration of pragmatism in Islamic education: Relevance to modern learning. *Al-Masail: Jurnal Ilmu Syariah dan Hukum*, 11(2), 45–58.
 6. Ab Rahman, A., et al. (2021). Pandemik COVID-19: Cabaran pengajaran dan pembelajaran (PdP) pendidikan Islam dalam pendidikan khas bagi pelajar orang kurang upaya (OKU) masalah pembelajaran di Malaysia. *Jurnal Pendidikan Islam dan Sains Sosial*, 5(1), 1–10.
 7. Hashim, R. (2011). The reformation of Muslim education in Malaysia: Ensuring relevance and overcoming challenges. *International Journal of Islamic Thought*, 1(1), 1–10.
 8. Hashim, R. (2014). *The Hikmah (Wisdom) program: A philosophical inquiry for the teaching of Islamic education in Malaysia*. Routledge.
 9. Guhin, J. (2020). The boundaries of pragmatism in Muslim education: Comparing the Islamic pedagogies of Sayyid Qutb and Fethullah Gülen. *Critical Research on Religion*, 8(3), 257–272.
 10. Waghid, Y., & Smeyers, P. (2014). Re-envisioning the future: Democratic citizenship education and Islamic education. *Journal of Philosophy of Education*, 48(4), 539–558.

APPENDIX

Questionnaire

Section 1: Awareness and Perception of AI

1. How familiar are you with the application of AI in educational or religious contexts?

- A. Very familiar
- B. Somewhat familiar
- C. Not Very Familiar
- D. Not familiar at all

2. In your opinion, does the use of AI align with Islamic values and ethics?

- A. Yes, Fully
- B. Partially
- C. With reservations
- D. No

Section 2: AI and Muslim Pragmatism

1. Muslim Pragmatism values practical outcomes within the bounds of Islamic ethics. In what areas do you see AI offering **pragmatic benefits** for the Muslim community?

- A. Islamic Education
- B. Halal Compliance monitoring
- C. Fatwa databases and decision support
- D. Mental health and well-being

2. How important is it that AI tools developed for Muslim users follow **Shariah compliant ethical standards**?

- A. Extremely important
- B. Important
- C. Somewhat important
- D. Not important