JOURNAL OF RESEARCH, INNOVATION, AND STRATEGIES FOR EDUCATION
VOL. 2, NO. 3, PP. 01-14, JUNE 2025
https://doi.org/10.70148/rise.v2i3.1

A Systematic Literature Review (SLR) on the Use of Augmented Reality (AR) Technology in the Teaching and Learning of Islamic Education

Muhammad Talhah Ajmain @ Jima'ain [1*], Rashidah Md Hasan [2], Wan Ali Akbar Wan Abdullah [3]

[1] Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, Johor, Malaysia
[2] Institute of Teacher Education (IPG) Tuanku Bainun, Pulau Pinang, Malaysia
[3] Department of Islamic and Moral Education, Institute of Teacher Education (IPG) Raja Melewar, Negeri Sembilan, Malaysia

ABSTRACT

This systematic literature review (SLR) was conducted to examine the effectiveness of Augmented Reality (AR) technology in the teaching and learning (T&L) of Islamic Education. AR, as a technology that merges virtual and real elements, has the potential to enhance students' learning experiences through more interactive visualisation of religious content. The objective of this study is to identify the approaches, effectiveness, and challenges of AR implementation within the context of Islamic Education, as well as to propose directions for future research. The PRISMA method was employed to ensure a transparent and comprehensive systematic review process. Searches were conducted across three major databases DOAJ, ERA and ERIH Plus using keywords related to AR and Islamic Education, resulting in 14 selected articles based on eligibility criteria. The findings were thematically analysed and yielded three key themes: integration of technology in Islamic Education, pedagogical transformation and instructional design and values, concepts and ethics in digital education. AR was found to significantly improve students' motivation, engagement and understanding of Islamic concepts, while also promoting self-directed and student-centred learning. However, the implementation of this technology faces challenges in terms of teacher competency, the digital divide and the need for ethical guidelines anchored in *maqasid shariah*. This study recommends that the development of AR-based instructional models in Islamic Education be designed holistically, inclusively and grounded in Islamic values. Future research should focus on teacher training, the development of Islamic technology-based curricula and educational policies that support ethical and effective digital integration.

SEJARAH ARTIKEL
Received 25 June 2025
Revised 30 July 2025
Accepted 13 August 2025

KEYWORDS
Augmented Reality (AR);
Islamic Education;
Teaching and Learning (T&L)

CONTACT Muhammad Talhah Ajmain @ Jima'ain muhammadtalhah.j@utm.my Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, Johor, Malaysia. **ISSN : 3030-6582 (Printed), eISSN : 3030-5330 (Online).** DOI rise.v2i3.1.

1. Introduction

Islamic Education plays a vital role in shaping students' identity, character and religious understanding. In the era of the Fourth Industrial Revolution (IR 4.0), the teaching and learning approaches in Islamic Education require continuous innovation to remain aligned with current technological advancements. One emerging technology that is gaining increasing attention in the field of education is Augmented Reality (AR), a technology that integrates virtual elements with the real world to provide a more interactive learning experience (Azuma, 1997; Yuen et al., 2011).

The application of AR in education has been proven to enhance student motivation, engagement and comprehension of complex topics (Bacca et al., 2014; Akçayır & Akçayır, 2017). In the context of Islamic Education, AR holds significant potential to facilitate students' understanding of abstract concepts within the Qur'an, Hadith, Sirah and Islamic ethics more effectively (Faizzuddin & Hafizhah, 2024), as well as to illustrate jurisprudential (*fiqh*) concepts in a more interactive manner (Wan Ali Akbar, 2022). Studies by Azhar et al., (2024) demonstrate that the use of AR in pedagogy strengthens learning interaction within contextual virtual environments. Nor Hafizah et al., (2024) further highlight AR as a strategic approach to sustaining Islamic Education during instructional disruptions such as the COVID-19 pandemic. In Malaysia, Ahmad Syafiq et al., (2022) found that AR implementation supports 21st-century pedagogy by enhancing students' understanding and engagement. However, the adoption of this technology in Islamic Education remains relatively new and necessitates further investigation to assess its effectiveness, implementation challenges and alignment with Islamic ethical and value frameworks.

Accordingly, this systematic literature review (SLR) is conducted to identify, analyse and synthesise existing research on the application of AR technology in strengthening the teaching and learning of Islamic Education. This study also aims to uncover existing research gaps and propose future directions to ensure broader and more effective integration of AR in Islamic Education. The review is structured according to the PRISMA guidelines (Page et al., 2021) to ensure transparency and credibility throughout the literature review process.

2. Literature Review

2.1 AR Technologies in Islamic Education

In the era of the Fourth Industrial Revolution, Augmented Reality (AR) has emerged as a transformative technology in the field of education. AR refers to a system that integrates virtual visual elements into the real world in real time, creating an enriched and interactive learning environment (Azuma, 1997; Yuen et al., 2011). In educational contexts, AR facilitates the visualisation of abstract or complex content, offering students more concrete and immersive experiences (Bacca et al., 2014; Akçayır & Akçayır, 2017; Wan Ali Akbar, 2022).

Through AR, students can explore three-dimensional models of objects or environments that are otherwise inaccessible in a traditional classroom. For instance, in Islamic Education, learners can virtually examine the structure of the Kaaba, experience reenactments of historical events such as the Battle of Badr or engage in interactive simulations of the Hajj rituals. These applications enable a deeper understanding by linking textual knowledge with spatial and visual contexts.

Wan Ali Akbar (2022) conducted a study on innovative Islamic Education teachers at secondary schools and found that most AR-based innovations were developed within the *fiqh* (jurisprudence) domain. These innovations integrated gamification elements and visual presentations to explain topics such as prayer (*solat*), animal slaughtering (*qorban*) and the chronology of Hajj and Umrah. Such approaches not only enhanced student engagement but also facilitated experiential and active learning.

Overall, AR technology provides a valuable pedagogical tool to revitalise the teaching and learning of Islamic Education. By making abstract concepts more tangible and enhancing student interactivity, AR holds potential for self-directed, visual-based and experiential learning that aligns with contemporary educational needs. However, its implementation should be guided by pedagogical soundness, ethical considerations and compliance with Islamic values.

2.2 Learning Strategies

Various learning strategies have been explored in the literature to optimise the integration of Augmented Reality (AR) into classroom environments. Among the most prominent are project-based learning, collaborative learning and gamification, all of which aim to enhance student engagement and deepen learning outcomes (Dunleavy & Dede, 2014).

In the context of AR, project-based learning enables students to take an active role in designing or interacting with AR content. This hands-on involvement cultivates 21st-century skills such as critical thinking, communication, creativity and problem-solving. Students gain a sense of ownership over their learning process while engaging with immersive content that brings lessons to life.

Furthermore, experiential learning strategies align naturally with AR technology due to its capacity to allow learners to "experience" simulated environments that go beyond the physical classroom (Wu et al., 2013). In Islamic Education, this can include virtual reenactments of significant historical events such as the Hijrah of the Prophet Muhammad (PBUH), visual tours of the Kaaba or interactive simulations of the Hajj pilgrimage (Nurul Iznni et al., 2025). These immersive experiences foster emotional connection, contextual understanding and enhanced retention of religious knowledge.

In addition, gamification strategies have proven effective in increasing student motivation and participation. AR can incorporate game-like elements such as point scoring, challenges and immediate feedback to reinforce learning content. For instance, AR-based Islamic games can guide students through the steps of ablution (wudu'), prayer (solat) or the sequence of Hajj rituals, turning religious instruction into an engaging and meaningful journey.

Overall, the integration of AR with appropriate pedagogical strategies opens new possibilities for interactive, contextual and student-centred learning. By aligning AR applications with effective instructional models, educators can enrich the delivery of Islamic Education while promoting active learning and deeper comprehension.

2.3 Islamic Education Learning

Islamic Education in the digital era faces the challenge of maintaining the effectiveness of value transmission and knowledge dissemination within contemporary learning environments. As certain areas of Islamic Education involve abstract concepts, lengthy historical narratives (sirah) and religious practices that require accurate visualisation or demonstration, AR offers innovative solutions. A study by Al-Qudah

et al., (2025) highlights that AR significantly enhances the motivation of secondary school students in the UAE, particularly in practical aspects of Islamic Education such as worship. They suggest that AR applications can provide interactive simulations that help students better understand the steps of salah and wudu'.

Previous research has found that Islamic Education is often associated with traditional methods such as lectures and rote memorisation. However, these approaches now need to be adapted with technology to remain relevant (Hashim & Langgulung, 2008). Innovations like AR are capable of visualising religious content interactively, for example, in teaching Hijaiyah letters to deaf children (Nurul Iznni et al., 2025) or in enhancing understanding of worship and ethics through simulations (Elga Yanuardianto et al., 2024). Diana (2022) also demonstrated the benefits of AR in strengthening the teaching of Islamic history, where students can "visit" historical sites or interact virtually with ancient artefacts. This alternative makes learning more realistic and goes beyond textual reading. Such an approach aligns with the findings of Mat Resad et al., (2024), who explored the potential of AR in supporting the teaching of Islamic civilisation. AR applications have also been studied in the teaching of Quran and tajwid. Findings by Adhani et al., (2022) indicate that AR can assist in introducing Hijaiyah letters and tajwid rules through interactive 3D visualisations, contributing to enhanced student comprehension. These findings are consistent with efforts to make religious learning more dynamic and accessible (Andrianu, 2024).

Furthermore, a study by Elga Yanuardianto et al., (2024) demonstrated that the Beyond the Wall model, which incorporates digital technology, effectively promotes interfaith tolerance and appreciation of core values among primary school students. This illustrates the potential of technology not only to enhance knowledge but also to support the development of authentic Islamic character. Nevertheless, the integration of technology in Islamic Education requires a cautious approach to ensure that Islamic values and adab remain preserved (Faqihatin, 2021). Research by Wan Ali Akbar (2022) also indicates that while innovations and technologies in education are often developed to achieve instructional objectives such as enhancing memory, deepening understanding, stimulating higher-order thinking (HOTs) and improving academic performance, innovative Islamic Education teachers do not neglect the fundamental goals of education such as character development and dakwah.

2.4 Challenges and Ethical Issues

Despite the numerous advantages offered by AR technologies, their use in Islamic Education is not without challenges. The integration of AR into Islamic Education involves not only technical aspects but also raises various ethical considerations. This is crucial, as Islamic Education emphasises the balance between knowledge, values and character. Therefore, the adoption of technology must be approached with caution. One of the major challenges is the digital divide, which refers to disparities in access to technology between urban and rural areas, as well as between well-resourced and under-resourced schools (Nurdin, 2023). Teachers also face constraints in terms of technical skills required to effectively implement Augmented Reality (AR) in teaching and learning. In addition, financial limitations pose a barrier, particularly in acquiring AR-compatible devices and applications necessary for developing high-quality and immersive instructional materials (Wan Ali Akbar, 2022).

Furthermore, ethical concerns have become a central topic of discussion. For example, in the teaching of Sirah (Prophetic biography), questions arise such as whether the faces of the Prophet Muhammad (PBUH), other prophets and the Companions (RA) may be visualised and whether it is permissible to recreate specific places or objects from the Prophet's time. Thus, AR content must ensure factual accuracy and align with Islamic ethical guidelines and principles (Faizzuddin & Hafizhah, 2024). This

is essential to prevent misconceptions or the dissemination of inaccurate religious information. Additionally, the use of AR in educational settings must consider issues of content appropriateness, cultural sensitivity and pedagogical relevance to ensure that it supports the intended learning objectives while upholding Islamic values.

3. Research Questions

The research questions were developed using the SPIDER model introduced by Cooke et al., (2012) as an alternative to the PICO model, particularly for qualitative or mixed-method studies. This model is highly beneficial for guiding researchers in constructing systematic literature review questions that focus on experiences, perceptions and educational phenomena.

No.	SPIDER Model Elements	Content in the Study
1.	*S: Sample*	Students, teachers or Islamic education institutions utilizing augmented reality (AR) technology.
2.	*PI: Phenomenon of Interest*	The use of augmented reality (AR) technology in the teaching and learning process of Islamic education.
3.	*D: Design*	Research designs in the form of quantitative, qualitative or mixed methods within the context of AR usage for Islamic education.
4.	*E: Evaluation*	The effectiveness, challenges and impact of AR implementation on the teaching, learning and understanding of Islamic education.
5.	*R: Research Type*	Empirical studies (quantitative, qualitative or mixed methods).

1. What are the research objectives, sample characteristics, implementation approaches and methods, as well as the research designs employed in studies on the use of augmented reality (AR) technology in the teaching and learning of Islamic Education?

2. What are the key findings related to the effectiveness, challenges and impact of using augmented reality (AR) technology in Islamic Education and what types of empirical studies dominate the existing body of research?

4. Methodology

This study employed the PRISMA methodology, which is well-suited for systematic literature review research, by establishing clear eligibility and exclusion criteria through the systematic review process steps, namely identification, screening, inclusion, as well as data extraction and analysis. The PRISMA framework (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) represents best practice in conducting a Systematic Literature Review (SLR) as it ensures transparency and accuracy in research reporting. This study utilised Scopus as the sole database, given its extensive coverage of high-quality journals relevant to educational technology and the application of Augmented Reality (AR) in Islamic Education teaching and learning (T&L). In addition, the study applied a structured search string and

adhered to the PRISMA protocol to enhance the transparency and inclusivity of the research findings. The method was guided by the updated PRISMA Statement as outlined by Page et al., (2021).

1. PRISMA offers three main advantages:
2. Clearly defines the research question to enable a systematic review process;
3. Identifies inclusion and exclusion criteria in detail;
4. Facilitates the evaluation of a large body of scientific literature within a specified time frame.

As illustrated in Figure 1, this systematic review followed four main phases: (1) identification, (2) screening, (3) eligibility assessment and (4) inclusion. We adhered strictly to the PRISMA criteria as it is evidence-based and supports transparent and comprehensive reporting of systematic literature reviews. Transparency and completeness in reporting are crucial to ensure research quality, as they allow readers to assess the research procedure and the credibility of the findings (Sarkis-Onofre et al., 2021).

This study aims to identify the impact of Augmented Reality (AR) technology on various learning strategies, particularly in addressing pedagogical challenges in teaching and learning contexts. It also seeks to extract common features from previous studies and categorise them according to the types of AR technology used and the implemented learning strategies. The following keywords were used for database searches: Augmented Reality, Islamic Education, Teaching and Learning. The search was conducted across the DOAJ Database, ERA Database and ERIH Plus Database, yielding 171 results. However, only 14 studies were deemed relevant based on the following criteria:

1. The study explicitly stated the use of AR in Islamic Education learning strategies;
2. The study was published between 2021 and 2025;
3. The study included either empirical data or a literature review.

After being analysed using the systematic literature review method adapted from Moher et al., (2009), the findings were summarised as presented in Table 1.

Table 1: Search strings used for the systematic review process

Database	**Boolean Operator Used**
DOAJ	("Augmented Reality" OR "AR") AND ("Islamic Education" OR "Religious Education" OR "Islamic Studies") AND ("Teaching" OR "Learning")
ERA	("Augmented Reality" OR "AR") AND ("Islamic Education" OR "Religious Education" OR "Islamic Studies") AND ("Teaching" OR "Learning")
ERIH PLUS	("Augmented Reality" OR "AR") AND ("Islamic Education" OR "Religious Education" OR "Islamic Studies") AND ("Teaching" OR "Learning")

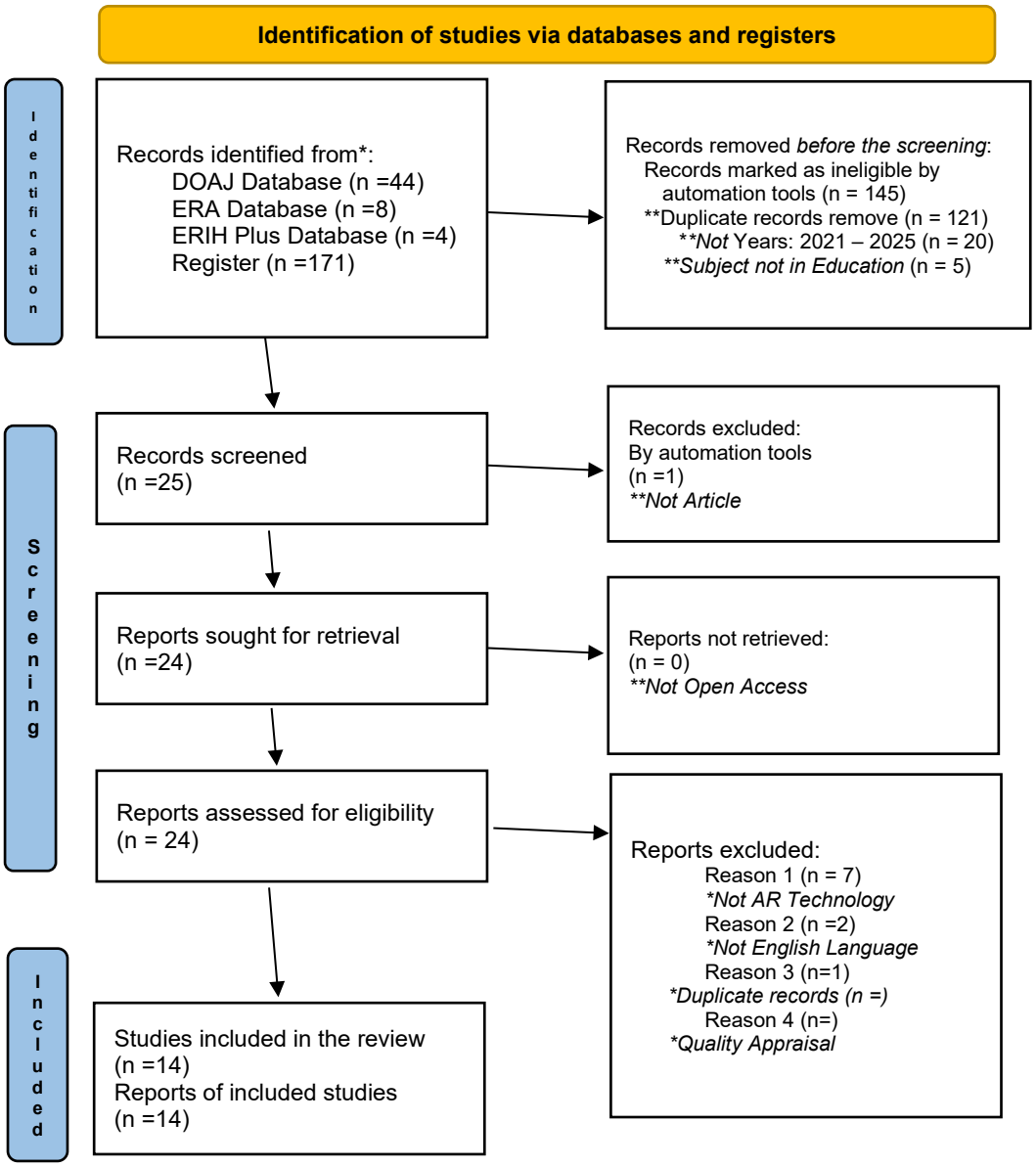

Figure 1: The flow diagram of the study. (Adapted from Page et al., (2021)

4.1 Identification

The identification phase of this study involved retrieving articles from various databases and registries to ensure comprehensive coverage of the literature. A total of R = 171 records were identified from multiple sources, including the DOAJ Database (n = 44), ERA Database (n = 8), ERIH Plus Database (n = 4) and registry records (n = 171). These records were screened using automation tools to enhance the efficiency of the initial filtering process. A total of 145 records were excluded for not meeting the basic eligibility criteria, including duplicate records (n = 121), publications outside the targeted date range of 2021–2025 (n = 20) and studies unrelated to the field of education (n = 5). This process adhered to PRISMA standards to ensure transparency and reproducibility in the literature review process.

4.2 Screening

Following the identification phase, 25 records were advanced to the screening stage. This process involved a thorough review of the titles, abstracts and article contents to determine alignment with the study's focus. One record was excluded as it was not classified as an article. The remaining 24 reports were then assessed for eligibility by examining full-text access and content relevance. This step was conducted meticulously to minimise bias and ensure that only truly relevant articles were included in the subsequent evaluation. No reports were excluded due to access restrictions, demonstrating the effectiveness of the search strategy.

4.3 Included

Of the 24 reports assessed for eligibility, 14 articles met the inclusion criteria for the systematic literature review. These articles were selected following a rigorous quality appraisal process. A total of 10 reports were excluded for various reasons, including: lack of relevance to AR technology (n = 7), not published in English (n = 2) and one report with an insufficient quality assessment score (n = 1). This step underscores the importance of article selection based on strict methodological standards to ensure the integrity and accuracy of the review findings. Only articles that met more than 50% of the quality assessment criteria were included, in accordance with the PRISMA protocol for systematic literature reviews.

5. Data Analysis

This section analyses 14 selected articles using an inductive thematic approach. The data were extracted, compared, and categorised into key themes related to the use of Augmented Reality (AR) in Islamic Education. The analysis focuses on the approaches, effectiveness and implementation challenges of AR, as well as its relevance to the cognitive, affective and psychomotor domains. The findings presented in Table 2.0 summarise the analysis based on the authors' names, research objectives, methodologies, key findings and conclusions regarding the integration of technology in the teaching and learning of Islamic Education.

Table 2
Critical Analysis of the Studies

Penulis	Objektif	Kaedah	Hasil Utama	Kesimpulan
Nurti Budiyanti et al. (2022)	Formulate the concept of the ideal human (Insan Kamil) (Ulul Ilmi, Ulul Albab, Uli an-Nuha) as the goal of Islamic education	Qualitative study; literature review; tahlili and muqaran analysis	The concept of Insan Kamil emphasizes cognitive, affective, spiritual and moral development.	Islamic education must produce Solleh, knowledgeable, akhlak, khalifatullah.
Emi Rohmiati (2025)	Explore opportunities and challenges of digital media in Islamic education in Indonesia	Literature review; content analysis; source and method triangulation	Digital media increases access and motivation but faces challenges in infrastructure and teacher competency	Digital media supports Islamic education quality; there is a need to enhance infrastructure, teacher skills and digital ethics.
Zubairi & Nurdin (2022)	Identify challenges in Islamic education within the context of the Industrial Revolution 4.0.	Literature review; qualitative descriptive study.	AR, AI, and IoT are significant; teachers need to enhance their competencies.	Islamic education must adapt to technology to address future challenges.
Ahmad Bakati & Ani Cahyadi (2024)	Optimize technology in Islamic education to improve teaching quality	Literature review; content analysis	It is essential to understand VR, AR, AI, IoT and gamification	Islamic education must utilize technology to enhance the quality of learning

Xin-Zhu Li et al. (2023)	Compare the effects of interactive technology (AR) in religious education for children aged 3–4	Experimental study; AR group vs. brochure group; GLOs and TAM questionnaires.	The AR group outperformed in knowledge, attitude and creativity.	AR increases motivation, learning outcomes and religious understanding
Reza Cahya & Nurul Latifatul (2024)	Analyze challenges and strategies in cultivating Islamic values in TPQ (non-formal education centers)	Qualitative study; observation, interviews, documentation.	Challenges include low family involvement and limited infrastructure.	Customized curricula and family engagement are needed; TPQs support SDG achievement.
Saehu et al., (2024)	Analyze the integration of digital technology in Islamic education.	Literature review; content analysis.	AR and AI enhance engagement but pose risks to moral values.	Digital technology must be integrated with Islamic values; requires policies and teacher training.
Nurul Izzni et al. (2025)	Develop AR to aid Hijaiyah letter learning for deaf students.	Interviews, teacher surveys; ADDIE design model.	AR and animation improve motivation and comprehension for deaf learners.	AR is effective in supporting deaf students; further technological innovation is necessary.
Sri Astuti et al. (2024)	Address stunting and child protection from the perspective of Islamic education.	Qualitative study; lecturer interviews; descriptive analysis.	Integration of Islamic education principles is essential for stunting prevention.	Islamic education should support national strategies for stunting prevention and child protection.
Muhammad Hasani et al. (2023)	Evaluate Islamic education learning outcomes using the TGT model.	Classroom action research; two cycles.	Achievement increased from 33% to 97% meeting minimum learning standards (KKM).	The TGT model enhances Islamic education outcomes.
Redite Kurniawan & Zulkarnain. (2023)	Understand students' religious expression through writing	Mixed-method approach; analysis of students' written content.	Students demonstrated religious values and ethics in their writings.	Islamic education enhances religious expression and language skills.
Iffah Al Walidah & Irpan Husaini. (2023)	Apply Tafsir maqashid-based interpretation of ecological verses to instill environmental ethics.	Qualitative study; tafsir analysis; textual observation.	Ecological verses foster ethics and environmental awareness.	Islamic education must emphasize ecological ethics
Elga Yanuardianto et al. (2024)	Innovate Islamic education through digital technology using the Beyond the Wall model.	Case study; interviews, observations.	The model enhances tolerance and understanding; faces digital divide challenges.	The model effectively promotes tolerance; digital challenges must be addressed
Muslim (2024)	Analyze the use of digital technology in Islamic education to address moral challenges in the digital era.	Literature review; content analysis.	Technologies like AR and AI enhance engagement but risk undermining values and religious source credibility.	Islamic education must integrate technology with Islamic values; curriculum should balance innovation with ethics; teacher training is essential.

The findings summarised in Table 2 reveal various focal points in the development of Islamic Education, particularly in the context of technology integration and the cultivation of human values. Nurti Budiyanti et al., (2022) found that the concept of insan kamil, integrated with the values of Ulul Ilmi, Ulul Albab and Uli an-Nuha, emphasises cognitive, affective, spiritual and moral development critical for nurturing knowledgeable, ethical individuals who fulfil their role as khalifatullah.

In the context of technology, Emi Rohmiati (2025) reported that digital media enhances access and motivation in religious education, although it faces challenges such as inadequate infrastructure and limited teacher competency. Zubairi & Nurdin (2022) highlighted the importance of technologies like AR, AI and IoT in Islamic Education, stressing the need to upskill educators to meet the demands of the Fourth Industrial Revolution. Ahmad Bakati and Ani Cahyadi (2024) further emphasised that Islamic Education teachers must understand and leverage technologies such as VR, AR, AI, IoT and gamification to improve instructional quality. Meanwhile, Xin-Zhu Li et al., (2023) demonstrated that the use of AR in Islamic Education significantly improves students' knowledge, attitudes, creativity and motivation compared to traditional methods.

Muslim (2024) analysed the use of digital technology in Islamic Education and argued that while AR and AI can enhance engagement, accessibility and learning effectiveness, they also pose risks such as the erosion of moral values, reduced authenticity of religious sources and increasing dependency on technology. Therefore, Muslim stressed the need for a technology-based curriculum that is balanced with Islamic values and called for targeted teacher training to address these needs.

At the level of non-formal education, a study by Reza Cahya and Nurul Latifatul (2024) identified that low family involvement and infrastructural limitations are major challenges in embedding Islamic values within the classroom. These findings highlight the need for customised curricula and stronger family engagement. In terms of integrating technology with Islamic values, Saehu et al., (2024) found that while digital technology increases engagement, it may compromise moral values if not grounded in Islamic principles. Nurul Iznni et al., (2025) showed that the use of AR and animation for deaf students is highly effective in enhancing their motivation and comprehension.

Sri Astuti et al., (2024) emphasised the importance of integrating Islamic Education principles into national strategies to prevent stunting and protect children. Muhammad Hasani et al., (2023) demonstrated that the Team Game Tournament (TGT) model successfully increased the performance of Islamic Education students, with mastery level rising from 33% to 97%. Furthermore, Redite Kurniawan and Zulkarnain (2023) found that Islamic Education fosters religious expression and language skills through writing, while Iffah Al Walidah and Irpan Husaini (2023) concluded that understanding ecological verses in the Qur'an promotes the development of ecological ethics in Islamic Education. Finally, Elga Yanuardianto et al., (2024) showed that the Beyond the Wall model is effective in promoting religious tolerance among students, despite the ongoing challenge of the digital divide.

6. Discussion

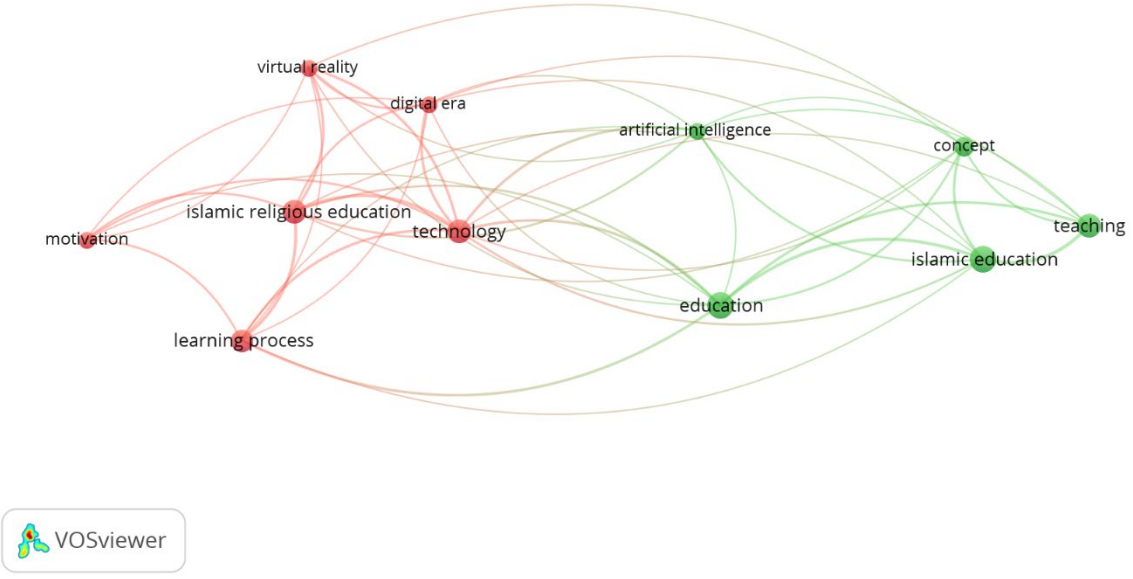

Figure 1: Keyword Co-occurrence Network Analysis in Augmented Reality (AR) Research for Teaching and Learning in Islamic Education

The conceptual network diagram generated using VOSviewer reveals two major clusters in the literature on technology-driven Islamic Education: the red cluster focuses on practical aspects, motivation, and technology (e.g., technology, virtual reality, digital era, learning process), while the green cluster is more conceptual in nature (e.g., concept, teaching, Islamic education, artificial intelligence). From this analysis, three key themes were identified: Technology Integration in Islamic Education, Pedagogical Transformation and Values, Concepts and Ethics in Digital Islamic Education.

6.1 Technology Integration in Islamic Education

Technology integration in Islamic Education refers to the direct application of digital innovations such as Augmented Reality (AR), Virtual Reality (VR) and Artificial Intelligence (AI) into the teaching and learning (T&L) process. These technologies enhance the effectiveness of T&L through the visualisation of abstract content, interactive experiences and student-centred approaches. For example, Xin-Zhu Li et al., (2022) reported that using AR applications in religious education classrooms significantly improved students' understanding, attitudes and creativity, particularly among children aged 3–4 years. Similarly, findings by Nurul Iznni et al., (2023) demonstrated that AR applications used in learning Hijaiyah letters had a positive impact on deaf students in terms of motivation and basic Quranic literacy.

Moreover, technology facilitates broader and more open access to Islamic educational materials, including learning videos, worship simulations and digital learning management systems. According to Ahmad Bakati et al., (2024), technologies such as AR, AI and gamification can be leveraged to enrich Islamic Religious Education (IRE) content, making it more engaging and relevant for the digital generation. In contemporary Islamic education, technology serves not only as a teaching aid but also as a catalyst for more inclusive and responsive educational reform that meets diverse student needs.

6.2 Pedagogical Transformation and Learning Design

The adoption of digital technology has led to significant changes in the pedagogical design of Islamic education. Moving beyond traditional lecture-based methods, there is now a shift towards active and collaborative pedagogies such as project-based learning, gamified education and self-directed learning using open resources. The Beyond the Wall model introduced by Elga Yanuardianto et al., (2022) demonstrated that integrating technology into Islamic education can foster religious tolerance, critical thinking, and intercultural understanding. In this study, students exposed to interactive virtual environments exhibited higher engagement and deeper comprehension compared to those taught using traditional methods.

Likewise, Muhammad Hasani et al., (2023) validated the effectiveness of the Team Game Tournament (TGT) model in improving IRE learning outcomes, with student mastery levels rising from 33% to 97%. This approach illustrates how learning designs that combine technology and interactivity can significantly enhance student performance. Pedagogical transformation also allows for the development of customised curricula that address diverse learning styles. According to Bacca et al., (2014), AR use enables more flexible, visual and contextual learning making it especially suitable for teaching complex Islamic concepts.

6.3 Values, Concepts and Ethics in Digital Islamic Education

In the rapidly evolving technological landscape, Islamic education is not solely concerned with technical dimensions; it must also uphold the values and ethics that underlie the philosophy of Islamic education. This theme encompasses discussions on *maqāṣid al-sharīʿah*, digital adab and moral challenges in the use of technology. A study by Iffah Al Walidah et al., (2023) demonstrates that Islamic education should be supported by a *maqāṣidī* interpretation approach to Qur'anic ecological verses in order to cultivate value-

based awareness and a sense of responsibility towards the environment among students. This approach underscores that technology is not a neutral tool, but one that carries moral and spiritual implications which must be addressed with wisdom (*ḥikmah*).

Meanwhile, an unnamed 2022 study warns that technology use without the integration of Islamic values may erode moral sensitivity and lead to a loss of direction in education. This concern is supported by findings from Akçayır & Akçayır (2017), who emphasized that technologies like AR may have negative impacts if not guided by ethical principles and value awareness. Thus, the application of technology in Islamic education should be grounded in the principles of *ʿadl* (justice), *ḥikmah* (wisdom) and *amānah* (trustworthiness), while maintaining a balance between material and spiritual dimensions. This approach not only safeguards the integrity of Islamic education but also ensures the effectiveness of technology as a tool to strengthen the mission of *tarbiyah* and *daʿwah.*

7. Conclusion

This systematic literature review examined and synthesized 14 selected articles concerning the use of Augmented Reality (AR) technology in the teaching and learning of Islamic Education. Based on the PRISMA approach and thematic analysis, the findings reveal that AR holds great potential to enhance students' learning experiences through more interactive and contextual visualizations of religious content. This technology not only boosts student motivation and engagement but also supports deeper understanding of core concepts in areas such as Qur'an, Hadith, ethics (*akhlaq*), and Prophetic biography (*sirah*).

Three main themes were identified, the integration of technology in Islamic Education, pedagogical transformation and instructional design, and value-based and ethical issues in digital education. Previous studies have shown that AR integration can transform the pedagogical landscape from conventional methods to more active, collaborative, and student-centred approaches. Models such as Team Game Tournament (TGT) and Beyond the Wall demonstrate their effectiveness in enhancing student achievement and appreciation of Islamic values. However, the implementation of such technologies must be accompanied by a strong understanding of *maqāṣid al-sharīʿah* and digital etiquette (*akhlak*) to prevent deviation from the true aims of Islamic education.

The study also confirms the existence of gaps in teacher training, technological access and the development of Islamic AR-based instructional materials, which remain limited. Therefore, further research is needed to develop implementation models of AR that align with Islamic values, along with teacher training modules and educational policies that support its integration. Overall, this review advocates for the wise, ethical, and value-based use of AR technology to empower the mission of *tarbiyah* and *daʿwah* in Islamic education in the digital age.

Acknowledgements
None.

Conflict of Interest
None.

Ethics Statement
In preparing this manuscript, the authors used Dimension AI and ChatGPT (accessed on 10 July 2025) to assist in identifying research ideas and knowledge gaps through the aggregation and summarisation of

recent literature in the field. All AI-generated findings were critically reviewed, verified, and integrated by the authors, who take full responsibility for the accuracy and interpretation of these contributions.

Author Contributions

Muhammad Talhah Ajmain@Jima'ain[1]: Conceptualisation, Data Management and Writing
Rashidah Md Hasan[2]: Methodology and Writing
Wan Ali Akbar Wan Abdullah[3]: Writing

Data Availability

None.

References

Adhani, S. S., Gustalika, I., & A, S. M. (2022). Penggunaan Teknologi Augmented Reality Dalam Pembelajaran Agama Islam. *Jurnal Online Universitas Muhammadiyah Surabaya*. Dicapai dari https://journal.um-surabaya.ac.id/Mas/article/download/22684/7946/59185

Ahmad Bakati, & Cahyadi, A. (2024). Teknologi sebagai pendekatan dalam optimalisasi Pendidikan Agama Islam (PAI). *Jurnal Pendidikan Agama Islam*. 3(1), 173-181.

Ahmad Syafiq Yusof, Muhammad Talhah Ajmain @ Jima'ain, Sakinah Ab. Rahim, Hassan Abuhassna. (2022). *Implementation of augmented reality (AR) in Malaysian education system*. *International Journal of Academic Research in Progressive Education and Development*, 11(3), 337–347. https://hrmars.com/index.php/IJARPED/article/view/14660

Ainur Mardhiyah & Wan Ali Akbar. (2024). Kajian Kes mengenai C-Quran. Dlm *Kajian Terkini tentang Penyelidikan dalam Pendidikan Islam*. Seremban: IPG Kampus Raja Melewar.

Akçayır, M., & Akçayır, G. (2017). Advantages and challenges associated with augmented reality for education: A systematic review of the literature. *Educational Research Review*, 20, 1–11. https://doi.org/10.1016/j.edurev.2016.11.002

Al-Qudah, S. I., Al-Rawashdeh, A., Al-Hammouri, S. F., & Al-Taani, S. (2025). The Practice of Augmented Reality in Islamic Education and the Level of Motivation Among UAE Secondary School Students. *ResearchGate*. Dicapai dari https://www.researchgate.net/publication/388559537_The_Practice_of_Augmented_Reality_in_Islamic_Education_and_the_Level_of_Motivation_Among_UAE_Secondary_School_Students

Andrianu. (2024). *Systematic Literature Review: Pemanfaatan Augmented Reality Sebagai Media Pembelajaran Terhadap Literasi Siswa di Sekolah Dasar*. Al-Madrasah. Dicapai dari http://jurnal.stiq-amuntai.ac.id/index.php/al-madrasah/article/view/5064

Azhar Wahid, Miftachul Huda, Moh Abdul Rohim, Abdul Halim Ali, Khairul Ghufran Kaspin, Maskanatul Fiqiyah & Muhammad Talhah Ajmain Jima'ain. (2024). *Augmented reality model in supporting instruction process: A critical review*. In S. M. Yusof et al. (Eds.), *Proceedings of the International Conference on Future Learning Environments* (pp. 69–79). Springer. https://doi.org/10.1007/978-981-97-3305-7_6

Azuma, R. T. (1997). A survey of augmented reality. *Presence: Teleoperators and Virtual Environments*, 6(4), 355–385. https://doi.org/10.1162/pres.1997.6.4.355

Bacca, J., Baldiris, S., Fabregat, R., Graf, S., & Kinshuk. (2014). Augmented reality trends in education: A systematic review of research and applications. *Educational Technology & Society*, 17(4), 133–149.

Chen, C. M., Liu, H., & Chang, Y. C. (2017). Personalized curriculum sequencing utilizing modified knowledge engineering-based fuzzy expert system. *Computers & Education, 72*, 1–11.

Cooke, A., Smith, D., & Booth, A. (2012). Beyond PICO: The SPIDER tool for qualitative evidence synthesis. *Qualitative Health Research, 22*(10), 1435–1443. https://doi.org/10.1177/1049732312452938

Diana, N. (2022). Pemanfaatan Teknologi Augmented Reality Dalam Pembelajaran Sejarah Islam. *Variable Research Journal*, *2*(2), 1-8.

Dunleavy, M., & Dede, C. (2014). Augmented reality teaching and learning. In J. M. Spector, M. D. Merrill, J. Elen, & M. J. Bishop (Eds.), *Handbook of research on educational communications and technology* (pp. 735–745). Springer.

Faqihatin, N. (2021). Etika penggunaan teknologi dalam Pendidikan Islam. *Jurnal Pendidikan Agama Islam, 8*(2), 123–134.

Hashim, R., & Langgulung, H. (2008). Islamic religious curriculum in Muslim countries: The experiences of Indonesia and Malaysia. *Bulletin of Education and Research, 30*(1), 1–19.

Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.

Holmes, W., Bialik, M., & Fadel, C. (2019). Artificial intelligence in education. Boston: Center for Curriculum Redesign.

Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence unleashed: An argument for AI in education*. Pearson Education.

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine, 6*(7), e1000097. https://doi.org/10.1371/journal.pmed.1000097

Muhamad Faizzuddin Zainol Aman, Hafizhah Zulkifli. (2024). Pembelajaran Berasaskan Realiti Terimbuh dalam Pendidikan Islam [Learning Based on Augmented Reality in Islamic Education]. BITARA International Journal of Civilizational Studies and Human Sciences 7(2): 66-79.

Nurdin, A. (2023). Tantangan Pendidikan Islam di era Revolusi Industri 4.0. *Jurnal Pendidikan Islam Kontemporari, 5*(1), 15–30.

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ, 372*, n71. https://doi.org/10.1136/bmj.n71

Russell, S., & Norvig, P. (2021). *Artificial intelligence: A modern approach* (4th ed.). Pearson.

Sarkis-Onofre, R., Catalá-López, F., Aromataris, E., & Lockwood, C. (2021). How to properly use the PRISMA statement. *Systematic Reviews, 10*, 117. https://doi.org/10.1186/s13643-021-01671-1.

Siti Norhafizah Arim, Muhammad Talhah Ajmain, Khadijah Abdul Razak, Muhamad Nasir Mohamad Salleh, Ahmad Syafiq Yusof & Sulaiman Shakib Mohd Noor. (2024). *Navigating educational turbulence: A systematic literature review (SLR) on challenges faced by Islamic education amid the pandemic*. In S. N. Arifin et al. (Eds.), *Proceedings of the International Conference on Emerging Issues in Technology, Education, and Society* (pp. 715–729). Springer. https://doi.org/10.1007/978-3-031-62106-2_50

Wan Ali Akbar. (2022). Guru Inovatif Pendidikan Islam dalam Inovasi Pengajaran. *Tesis PhD*. Universiti Kebangsaan Malaysia.

Wu, H. K., Lee, S. W. Y., Chang, H. Y., & Liang, J. C. (2013). Current status, opportunities and challenges of augmented reality in education. *Computers & Education, 62*, 41–49. https://doi.org/10.1016/j.compedu.2012.10.024

Yuen, S. C.-Y., Yaoyuneyong, G., & Johnson, E. (2011). Augmented reality: An overview and five directions for AR in education. *Journal of Educational Technology Development and Exchange*, 4(1), 119–140.