

Intergrating Digital Learning in memorization Quran: A Literature Review

Ummu Hani Yusop, Zainora Daud, Mohamed Akhiruddin Ibrahim and Intan Diyana Md Kambali

Abstract – This systematic literature review examines the integration of digital learning approaches in Quran memorization, a critical area within contemporary Islamic education that requires deeper scholarly exploration. Despite increasing interest, comprehensive analyses synthesizing existing evidence on digital learning effectiveness in Quranic memorization remain limited. To address this gap, the review applied advanced searching techniques within Scopus and Web of Science (WOS) databases using the keywords “Integrating,” “Digital Learning,” and “memorization Quran.” Utilizing the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, a total of 34 relevant articles were selected for analysis. The thematic synthesis identified three principal themes: (1) Innovations and Pedagogical Strategies in Teaching and Learning, highlighting effective instructional approaches such as flipped classrooms, interactive applications, and active learning strategies; (2) Quranic and Islamic Education: Approaches, Memorization, and Pedagogy, underscoring the harmonization of traditional memorization practices with contemporary digital methodologies to enhance student engagement and learning outcomes; and (3) Technology Integration, Digital Learning, and Artificial Intelligence, demonstrating how cutting edge technologies, including AI powered tools and mobile applications, significantly improve personalized learning experiences and memorization efficiency. The findings suggest that digital learning integration positively impacts Quranic memorization through improved accessibility, learner motivation, and cognitive retention, though maintaining the spiritual and pedagogical integrity of traditional methods remains essential. This review contributes valuable insights by consolidating fragmented knowledge, offering practical guidance for educators and policymakers in Islamic educational institutions, and establishing a foundation for further research to optimize digital strategies in Quran memorization practices.

Keywords – Quran Memorization, Digital Learning, Islamic Education, Technology Integration, Systematic Literature Review

I. INTRODUCTION

In recent years, the integration of digital learning into various aspects of education has revolutionized teaching and learning processes across the globe (Khamele &

Bhanwrela, 2020; Khan & Gul, 2021). Quran memorization, traditionally rooted in oral transmission and repetition (A. Shukri et al., 2020; Rusadi, 2020; Hidayat et al., 2023), is no exception to this transformation. The emergence of digital technologies such as mobile applications, interactive platforms, cloud-based storage, and artificial intelligence has opened new avenues for improving efficiency, accessibility, and learner engagement in Quranic memorization (Khan & Gul, 2021). This development is especially pertinent in the 21st century, where learners are increasingly digital natives and educational institutions are shifting towards more hybrid and technology enhanced pedagogies. The relevance of digital learning tools in the field of Quranic education aligns with global educational reforms and the growing need for innovative approaches to Islamic pedagogy (Santos et al., 2024). As such, exploring how digital learning can be effectively integrated into Quran memorization is both timely and necessary for educators, curriculum developers, and policy makers in Islamic education (Moslimany et al., 2024).

The body of literature on Quran memorization has traditionally focused on pedagogical methods such as talaqqi (face-to-face recitation), murajaah (revision), and teacher student rapport, which are deeply embedded in classical Islamic educational traditions (Wijaya, 2024). However, recent studies have begun to examine the impact of digital tools in enhancing memorization outcomes. For instance, research by (Basir et al., 2024) Advancements in mobile applications and other digital resources provide learners with enhanced engagement opportunities, crucial for subjects requiring high levels of memorization, such as the recitation of the Qur'an, while (Hasanah, 2023) found that blended learning caters to various learners and provides diverse ways for students to engage with and memorize information. Furthermore, several technologies driven platforms, including gamified apps and AI assisted recitation tools, have shown promise in assisting students with pronunciation, tajweed, and memorization tracking. Despite these advancements, the incorporation of digital learning in Quran memorization remains sporadic and lacks a unified framework (Kabir, 2021). The empirical evidence is often limited to small scale studies, and few have explored long term effects, cultural acceptability, or the role of teachers in mediating digital content (Yang & Du, 2024).

Nevertheless, existing literature reveals several gaps and challenges. One major limitation is the lack of consensus on best practices for integrating digital learning in a way that complements, rather than replaces, traditional methods. Concerns have also been raised regarding screen dependency, distraction, and the potential erosion of spiritual and interpersonal elements that are central to

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Quranic learning. Moreover, there is a dearth of research exploring how digital tools can be tailored to diverse learning needs, especially for students in rural or underprivileged contexts.

These gaps call for a more nuanced and culturally sensitive framework that balances technological innovation with the spiritual integrity of Quran memorization. Moving forward, it is recommended that future studies adopt interdisciplinary approaches merging educational technology, Islamic pedagogy, and cognitive psychology to design robust models for digital Quranic education. Additionally, collaboration among scholars, educators, and developers is vital to ensure that digital learning tools are pedagogically sound, spiritually appropriate, and contextually adaptable. By addressing these gaps, the field can progress towards a more effective, inclusive, and spiritually grounded approach to Quran memorization in the digital age.

II. LITERATURE REVIEW

The memorization of the Quran is a significant religious practice for Muslims, requiring both cognitive and spiritual dedication. Traditional methods of memorization often involve one-on-one instruction, which can be inefficient due to the limited availability of teachers and the need for personalized attention (Purbohadhi et al., 2019). With the advent of digital technology, innovative solutions have emerged to facilitate and enhance the memorization process, making it more accessible and engaging for learners.

Digital Applications for Quran Memorization Several digital applications have been developed to support Quran memorization. For instance, *"The Hafiz"* application provides features such as memorization tests, Murotal Quran, play booster, and insight upgrade, which help users evaluate and improve their memorization independently (Aditia et al., 2024a). Similarly, *"EzHifz"* utilizes the VARK learning style to cater to different sensory preferences, enhancing the memorization process through a combination of techniques that engage multiple senses (Mustafa et al., 2021a)

Mobile Learning and Gamification Mobile learning has proven to be an effective alternative to conventional methods, especially for young Muslims. Applications like ITQAN use visualization techniques such as mind mapping to help users connect various verses and topics, thereby improving their memorization skills (Almosallam et al., 2016a). Additionally, the integration of gamification in learning applications, as seen in the GLAM-Q framework, can significantly boost motivation and engagement, leading to higher satisfaction and achievement in memorization (Hassan et al., 2023a).

Challenges and Solutions Despite the benefits of digital applications, there are challenges such as ensuring the authenticity of Quranic content and addressing the needs of marginalized groups who may not have access to digital materials (Khurram Khan & Alginahi, 2013; Yunus et al., 2024a). To overcome these challenges, it is essential to develop applications that are endorsed by Islamic bodies and incorporate advanced techniques for content (Sabbah

& Selamat, 2014). Moreover, combining digital learning with traditional face-to-face methods can help cater to the needs of all learners (Yunus et al., 2024b).

Innovative approaches to digital learning include the use of augmented reality (AR) and adaptive e-learning systems. AR can enhance the learning experience by providing interactive and immersive ways to understand Quranic verses (Maylawati et al., 2021). Adaptive e-learning systems, which tailor content and navigation based on the learner's level and style, can further improve the effectiveness of Quran memorization (Ragab et al., 2015).

Conclusion Integrating digital learning into Quran memorization offers numerous benefits, including increased accessibility, personalized learning experiences, and enhanced engagement. By leveraging mobile applications, gamification, and advanced technologies like AR, educators can create more effective and enjoyable memorization processes. However, it is crucial to ensure the authenticity of digital content and address the needs of all learners to fully realize the potential of these innovative solutions.

TABLE I: SUMMARY TABLE

Application/Framework	Features	Benefits	Challenges
TheHafiz	Memorization tests, Murotal Quran, play booster, insight upgrade	Independent evaluation and improvement of memorization	Ensuring user engagement and retention (Aditia et al., 2024b)
EzHifz	VARK learning style, sensory engagement	Enhanced memorization through multi-sensory techniques	User acceptance and heuristic testing (Mustafa et al., 2021b)
ITQAN	Visualization techniques, mind mapping	Improved connection and understanding of verses	Limited focus on innovative techniques (Almosallam et al., 2016b)
GLAM-Q	Gamification, personalized formative activities	Higher motivation and achievement	Need for expert validation and recommendations (Hassan et al., 2023b)
AR Implementation	Interactive 3D objects, simulations	Easier understanding of science verses	Speed and accuracy of object detection (Maylawati et al., 2021)
Adaptive E-learning	Tailored content and navigation, multi-level system tests	Improved educational path and achievement	Complexity of adaptive systems (Ragab et al., 2015)

By synthesizing insights from various studies, it is evident that digital learning can significantly enhance the memorization of the Quran, making it more accessible and engaging for learners of all ages.

III. MATERIAL AND METHODS

Identification

A significant amount of pertinent literature was gathered for this study by using essential steps of the systematic review process. Choosing keywords was the first step in the process. Next, dictionaries, thesauri, encyclopaedias, and previous research were used to find similar terms. Search strings were developed for the Web of Science and Scopus databases after all pertinent phrases were found (see TABLE II). 1,890 publications relevant to the study topic were found in the two databases during this first phase of the systematic review.

TABLE II: THE SEARCH STRING

Scopus	TITLE-ABS-KEY ((tahfidz OR memorization OR koran) AND teaching) AND PUBYEAR > 2023 AND PUBYEAR < 2026 AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (SUBJAREA , "SOC") OR LIMIT-TO (SUBJAREA , "ARTS")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English"))
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WoS	Refine results for (tahfidz OR memorization OR koran) AND teaching (Topic) and 2020 or 2021 or 2022 or 2023 or 2024 or 2025 (Publication Years) and Article (Document Types) and Article (Document Types) and 2024 or 2025 (Publication Years) and Article (Document Types) and English (Languages) and Article (Document Types) and Education Educational Research or Religion or Social Sciences Other Topics (Research Areas)
Date of Access: 28 June 2025	

Screening

The screening phase in a systematic literature review is a crucial step aimed at refining the search results to ensure only high-quality, relevant studies are included for further analysis. In this study, an initial pool of 1890 records retrieved from Scopus and Web of Science (WoS) underwent a rigorous screening process. After applying inclusion and exclusion criteria, only 134 records were retained 84 from Scopus and 50 from WoS. The criteria applied were carefully selected to ensure alignment with the scope and objectives of the study. Articles not published in English, published < 2023, or categorized as conference proceedings, books, review articles, or in-press papers were excluded. Additionally, studies that fell outside the targeted subject areas, namely social science and art and humanities. A total of 1890 records were excluded based on these conditions, highlighting the precision of the filtration strategy. The justification for these criteria lies in the need to focus on peer-reviewed, full-length journal articles that provide empirical evidence and scholarly insight relevant to the research topic. This approach ensures that the review captures the most recent and impactful contributions to the field while minimizing noise from less rigorous sources.

Moreover, the removal of duplicate records further enhances the validity and reliability of the review process. Seventeen duplicate entries were identified across both databases and eliminated to avoid skewing the analysis. The presence of such duplicates is common in multi database searches and addressing them is essential to maintain data integrity. By eliminating redundancy and ensuring only unique, high-quality publications are included, the study maintains a rigorous standard consistent with high-impact academic research. The selective exclusion of non English and pre 2025 articles ensures linguistic consistency and the inclusion of the most up-to-date scholarship, particularly in rapidly evolving academic fields. Additionally, by excluding grey literature and focusing exclusively on specific subject domains, the review narrows its analytical lens to the most pertinent and scientifically robust evidence available. This careful curation of sources not only strengthens the credibility of the findings but also sets a clear boundary for replicability and future research. Overall, the meticulous screening strategy employed in this review reflects best practices in systematic review methodology and ensures that the final corpus of literature is both comprehensive and academically rigorous.

TABLE III: THE SELECTION CRITERION IS SEARCHING

Criterion	Inclusion	Exclusion
Language	English	Non-English
Time line	2024-2025	< 2023
Literature type	Journal (Article)	Conference, Book, Review
Publication Stage	Final	In Press
Subject	Social science, arts and humanities	Besides Social science, computer Science and engineering

Eligibility

In the third stage of the systematic review process, referred to as the eligibility phase, a total of 117 articles were subjected to detailed evaluation. During this stage, each article's title, abstract, and key content were thoroughly reviewed to determine their relevance and alignment with the study's inclusion criteria and research objectives. As a result of this rigorous screening, 83 articles were excluded. The reasons for exclusion included misalignment with the field of study, titles that lacked significance, abstracts that did not correspond with the research objectives, and lack of access to full text articles grounded in empirical research. Following this eligibility assessment, 34 articles were deemed suitable and retained for the final stage of the systematic review.

Data Abstraction and Analysis

An integrative analysis approach was employed in this study as a key strategy to examine and synthesise findings from various research designs, particularly those utilising qualitative methods. The primary aim of this analytical process was to identify relevant themes and subthemes aligned with the study's objectives. The thematic development began with a structured data collection phase. As illustrated in Figure 2, the authors conducted a meticulous examination of 34 selected publications, extracting statements and content pertinent to the core focus of the research. This involved a comprehensive review of existing significant studies related to the teaching of Quran memorization (*tahfidz*), including a close analysis of their methodologies and findings.

Subsequently, the authors engaged in collaborative discussions to formulate emerging themes, grounded in the evidence gathered within the study's scope. Throughout the data analysis process, a reflective log was maintained to document analytical decisions, interpretations, uncertainties, and evolving insights that informed theme development. This log served as a critical tool for ensuring transparency and rigour in the interpretive process. At the final stage, the authors compared and cross-validated the findings to identify any inconsistencies or discrepancies in theme construction. Any conceptual disagreements that arose were resolved through team discussions, ensuring consensus and coherence in the final thematic framework.

The expert review phase helped ensure each sub-theme's clarity, importance, and adequacy by establishing domain validity. Adjustments based on the discretion of

the author based on feedback and comments by experts have been made. The questions are as follows below:

1. How have contemporary pedagogical strategies influenced the effectiveness of Quran memorization when integrated with digital learning environments?
2. What traditional and contemporary approaches are commonly employed in Quranic education, and how are these methods evolving in response to digital integration?
3. To what extent do digital technologies, including artificial intelligence and smart learning tools, contribute to enhancing memorization practices in Quranic education?

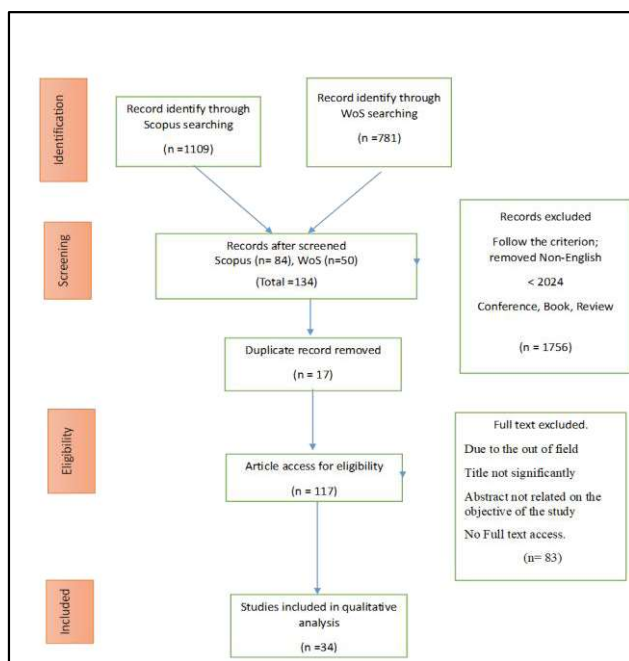


Figure 1. Flow diagram of the proposed searching study

IV. RESULT AND DISCUSSION

Innovations and Pedagogical Strategies in Teaching and Learning

Based on the analyzed abstracts related to the theme Innovations and Pedagogical Strategies in Teaching and Learning, the integration of technology and pedagogical transformation has demonstrated measurable impact on students' cognitive engagement and motivation. Virtual reality, in particular, has emerged as a key tool in reshaping anatomy education, where students indicated greater preference and enhanced understanding through immersive experiences compared to traditional dissection approaches (Al-Hor et al. 2024). Similarly, Beckerson et al. (2024) revealed that active learning sessions, when implemented consistently, reduced performance gaps among students of varying social personality types and improved their critical thinking abilities. Jiang et al. (2024) added empirical support by confirming that VR-

based experiential learning enhances learners' memorization and comprehension in a business negotiation course, strengthening the claim that virtual engagement environments can significantly elevate educational outcomes.

The application of outcome-based and student-centered approaches was found to vary depending on educator implementation and learner perception. (Syahrin et al. (2024) reported a mismatch between faculty claims and student feedback regarding the actual integration of critical thinking in classroom practices, although both groups recognized its importance. Similar pedagogical friction was identified in Saudi Arabia, where Alharbi (2024) observed resistance toward communicative language teaching due to prevailing traditional and sociocultural norms, indicating the necessity of modifying assessment structures and teacher training. Moreover, Chang et al. (2024) demonstrated that computational thinking strategies improved learning outcomes and decreased anxiety among programming students, highlighting how structured digital methods can reduce cognitive barriers in logic based courses.

The role of digital and active tools in supporting content retention and motivation has also been affirmed in historical, religious, and science education. Rekan et al. (2025) documented how Nearpod's interactive features transformed the teaching of Islamic history by enhancing emotional engagement and comprehension among teacher trainees. Lazaro et al. (2024) showed that augmented reality tools in history education improved chronological reasoning and stimulated students' interest and curiosity. Meanwhile, Shahid et al. (2024) reported that flipped classroom strategies significantly outperformed traditional methods in anatomy instruction, with participants noting improvements in knowledge retention, engagement, and application of concepts. These studies suggest that digital tools, when integrated with active pedagogies, have wide reaching benefits across disciplines.

Assessment methods that foster creativity and deep thinking were also examined across varied contexts. Du Plessis (2025) promoted project based assessments using AI tools like ChatGPT, observing gains in students' critical thinking, collaboration, and practical knowledge application. Abdurahim Salain (2024) found that portfolio based assessments fostered creative and analytical thinking in teacher education, offering a more holistic view of student development. Steliou and Jakubowski (2024) emphasized the need for diversity in memorization strategies among piano teachers, advocating a balance between visual, auditory, kinesthetic, and analytical approaches for skill mastery. These practices reflect a shift away from traditional testing toward integrated evaluation models that promote transferable skills.

From a curriculum and instructional design perspective, several researchers noted the importance of aligning pedagogy with students' developmental and contextual needs. Akhmetova et al. (2024) proposed game-based and imaginative approaches to promote cognitive development in history education, while Koranteng (2024) identified conceptual gaps in chemistry students' problem-solving processes, recommending targeted interventions to

strengthen synthesis reasoning. Crowther et al. (2024) advocated for redefining anatomy learning objectives to emphasize competencies beyond memorization, introducing a two-tiered framework to encourage higher-order thinking. Sukyadi et al. (2024) illustrated how national testing systems shaped language instruction in madrasah environments, prioritizing exam performance over communicative competence, further reinforcing the need for holistic instructional reform.

Quranic and Islamic Education: Approaches, Memorization, and Pedagogy

The integration of digital learning strategies within Quranic memorization and pedagogy has prompted substantial transformation in teaching methodologies and cognitive engagement. Basir et al. (2024) revealed that a hybrid approach combining traditional techniques such as repetitive recitation and group readings with digital tools like visual aids significantly improved phonetic skills and tajweed understanding in madrasah settings. A similar emphasis on structural and systematic memorization is evident in Suryana et al. (2024), where the "One Day One Verse" model at *Darul Hufadz* fostered memorization, translation, and understanding through frequent repetition and collaborative reading. Likewise, Othman et al. (2024) developed a Smart Quran Model grounded in VARK dimensions, where expert consensus validated most items, underscoring the importance of sensory-based learning tools in enhancing the facilitation of *Hifz al-Quran*. These studies demonstrate the growing consensus around the effectiveness of blended pedagogies in facilitating memorization and comprehension in Quranic education.

The role of institutional and parental influence in sustaining Quranic education has also become central to pedagogical enhancement. Hamzah et al. (2024) identified six key external factors influencing parental preference for tahfiz education in Malaysia, with curriculum structure and educational facilities playing pivotal roles. Parental involvement and curriculum coherence are further reflected in the findings by Suryana et al. (2024), who highlighted parental oversight as a catalyst in ensuring student engagement and Quranic discipline. Additionally, the study by Zaki et al. (2024) indicated that while traditional grammar focused Arabic teaching methods still dominate religious schools in Malaysia, there is an urgent call for pedagogical diversification to meet contemporary learner needs. These findings point toward the need for a holistic educational environment that integrates family, institutional resources, and curriculum planning to enhance the learning trajectory in Islamic contexts.

Another emerging theme pertains to the significance of spiritual and psychological development through Quranic-based educational interventions. Khoiriyah et al. (2024) presented the implementation of *muhasabah Quran* based counseling techniques in fostering altruism, emotional regulation, and academic excellence among students, demonstrating the broader role of Quranic values in personality shaping. Jaiyeoba and Osmani (2024) reaffirmed this by presenting historical and modern techniques of Hadith preservation including

memorization, practice, and documentation underscoring their enduring relevance in cultivating integrity and religious understanding. Abdullaieva et al. (2024) echoed these findings in a study on Hadith interpretation, stressing the complexity of authenticating and comprehending transmitted texts, with implications for theological clarity and academic literacy. Together, these studies reinforce that Quranic pedagogy is not only cognitive but deeply rooted in character formation and spiritual authenticity.

Trends in memorization research and pedagogical innovation were further explored through bibliometric and interdisciplinary approaches. Ardiansyah et al. (2024) utilized bibliometric analysis to chart a steady global increase in cognitive and Quranic memorization research, drawing attention to the intersection of memory science, digital technology, and Islamic pedagogy. Essop and Bourdon (2024) supported this direction by introducing pedagogical interventions in neurophysiology courses, linking abstract neurological concepts to real world pathologies through digital and interactive formats, thus making a case for such innovations in memorization driven fields. In both cases, the data affirm the growing relevance of data-driven decision-making and interdisciplinary innovation in shaping future memorization models in Quranic and religious education.

Technology Integration, Digital Learning, and Artificial Intelligence

Based on a thorough analysis of the abstracts under the theme Technology Integration, Digital Learning, and Artificial Intelligence, several critical insights emerge regarding how digital tools and emerging technologies are reshaping educational practices, especially in contexts traditionally reliant on memorization.

One of the most apparent transformations relates to the shift in pedagogical methods due to the COVID-19 pandemic. In the study by Betti and Saeed (2024), the integration of blended education into Iraqi EFL classrooms revealed both opportunities and shortcomings. While online delivery methods maintained high success rates, a decline in comprehension and memorization abilities was observed, particularly in traditional subjects like grammar and literature. Similarly, Salas et al. (2024) examined belief patterns in mathematics education during remote instruction and found that reliance on memorization decreased while performance improved, especially when lower memorization beliefs were held. This underscores a trend whereby digital learning environments may promote critical engagement over rote memorization, especially when aligned with interactive or open-resource methodologies. Hamamra et al. (2024) further emphasized this paradigm shift, showing how the use of generative AI such as ChatGPT altered student behavior, participation, and valuation of traditional assessment formats. Collectively, these studies signal a weakening link between memorization focused education and academic success in digital contexts.

Another layer of transformation involves the pedagogical philosophy surrounding memorization and experiential learning. Doménech (2024) explored early

20th century educational reforms in Spain, where traditional textbook use and memorization in natural science education were replaced with observational and interactive approaches. Though historical, this precedent aligns with the current digital transformation that encourages student centered learning through technology. Zhu (2024) also addressed this dichotomy by highlighting the friction between Eastern memorization-based philosophies and Western dialectical pedagogies in music education. Students navigating this blend often struggle, but the synthesis of both approaches ultimately fosters a more holistic and reflective learning experience. The emerging consensus from these findings indicates that while digital tools can diminish rote practices, they simultaneously offer platforms to hybridize tradition and innovation in educational delivery.

In summary, technology driven education is gradually redefining the role of memorization. As indicated by Betti and Saeed (2024), Salas et al. (2024), and Hamamra et al. (2024), the transition to digital learning during the pandemic catalyzed a reduction in memorization efficacy and engagement, particularly in contexts dependent on traditional pedagogies. Studies by Doménech (2024) and Zhu (2024) contextualize this shift within broader pedagogical evolutions that prioritize understanding and application over recall. These findings offer valuable implications for Quranic memorization education, particularly in shaping future strategies that integrate digital tools without compromising spiritual or cognitive depth.

V. CONCLUSION

This systematic literature review aimed to investigate the integration of digital learning in Quran memorization, specifically focusing on literature from Scopus and Web of Science databases published between 2024 and 2025, using the PRISMA framework. The review addressed key questions related to contemporary pedagogical strategies, the integration of digital tools with traditional Quranic education, and the effectiveness of artificial intelligence in enhancing memorization practices.

The synthesis of the selected 34 studies identified three primary themes: (1) Innovations and Pedagogical Strategies in Teaching and Learning, which highlighted that interactive and immersive digital techniques such as virtual reality, flipped classrooms, and gamification significantly improve learner engagement and knowledge retention. (2) Quranic and Islamic Education: Approaches, Memorization, and Pedagogy underscored that combining digital technologies with traditional memorization methods effectively enhances learning outcomes while maintaining spiritual authenticity. (3) Technology Integration, Digital Learning, and Artificial Intelligence revealed that digital tools positively influence learner motivation and memorization efficiency; however, concerns about reduced cognitive engagement and diminished interpersonal interactions were noted.

This review contributes to existing literature by consolidating fragmented research and providing a

comprehensive synthesis of effective digital learning strategies in Quran memorization. It introduces an integrated framework highlighting the benefits and challenges of digital learning, particularly emphasizing the necessity of maintaining traditional pedagogical and spiritual integrity within digital contexts.

Practically, the findings suggest educational stakeholders, curriculum developers, and policymakers should strategically incorporate validated digital tools and interactive methodologies to enrich Quran memorization practices. Specifically, blending traditional approaches with digital innovations could effectively address diverse learner needs and optimize memorization efficiency.

Despite these contributions, this review was constrained by database selection and language filters, potentially excluding relevant non English studies and grey literature. Future research should address these limitations by broadening database searches and including multilingual studies to capture a wider spectrum of perspectives. Additionally, longitudinal studies evaluating long-term impacts and cultural adaptability of digital tools in Quran memorization contexts would provide valuable insights.

Systematic literature reviews are crucial in this research area, offering comprehensive, evidence-based insights vital for advancing theoretical knowledge and guiding empirical studies to optimize digital learning integration in Quran memorization.

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