

Digital Transformation in Islamic Religious Education: Trend or Necessity in the Post-Pandemic Era

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<http://doi.org/10.33650/ijess.v4i1.7084>

Received: January 2025, Revised: March 2025, Accepted: April 2025

Abstract:

The rapid digital transformation following the COVID-19 pandemic has reshaped the landscape of Islamic Religious Education (PAI), creating both opportunities and challenges in teaching religious values. This study aims to examine whether digitalization in PAI serves merely as a temporary adaptation or as a sustainable pedagogical strategy for value-based education. Using a qualitative case study approach, data were collected from two Islamic educational institutions: one elementary school and one secondary school. This was achieved through in-depth interviews, classroom observations, and documentation of digital learning materials. The findings reveal that teachers' low digital literacy significantly hinders the effective integration of technology, while digital media use has improved learning flexibility, accessibility, and engagement. Furthermore, digitalization has transformed teaching methods, encouraging more reflective and contextual approaches to Islamic values education. The study presents new empirical evidence on how digital transformation influences pedagogical practices, underscoring the necessity for ongoing teacher training and institutional policy support to foster meaningful and sustainable innovation in religious education.

Key Words: Digital Transformation, Islamic Religious Education, Post-Pandemic, Pedagogical Innovation

Please cite this article in APA style as:

Mukarromah, A., R, A. H. A., Manshur, U. (2025). Digital Transformation in Islamic Religious Education: Trend or Necessity in the Post-Pandemic Era. *Indonesian Journal of Education and Social Studies*, 4(1), 85-99.

INTRODUCTION

The acceleration of digital transformation has become one of the most striking global phenomena in the post-pandemic era, affecting almost all aspects of life, including education. The COVID-19 pandemic acted as a catalyst that changed how humans interact, communicate, and learn. In the educational context, millions of students were forced to adapt to digital-based learning systems (Assa'idi, 2021; Hefner, 2022; Hudaefi et al., 2022). This transformation has reshaped the pedagogical landscape, bridging geographical limitations but also introducing new disparities in access and literacy. In Indonesia, digital learning became a survival tool, but later evolved into a driver of educational reform (Asrori et al., 2025; Sari et al., 2024; Tanti et al., 2025).. As the world transitions to a post-pandemic period, the question emerges: Should digital

transformation in education continue or revert to traditional methods? This issue is crucial for society because it determines the inclusivity, adaptability, and sustainability of education in the face of rapid technological disruptions.

The general problem lies in the uncertainty of whether digital transformation in education, especially Islamic Religious Education (PAI), is merely a temporary adaptation or an inevitable necessity. While digitalization offers flexibility and innovation, many teachers and students still struggle with uneven access, limited digital literacy, and inadequate pedagogical adaptation (Fawaid et al., 2025; Sain, 2025). These challenges create a gap between technological potential and actual implementation in classrooms. In religious education, where value internalization and character building are central, digital mediation raises questions about authenticity and emotional connection. Furthermore, the inconsistency of institutional readiness and government policy support makes digital transformation appear fragmented and unsystematic (Jali, 2025; Zamroni et al., 2025). Therefore, this study becomes essential to understand whether the digital shift in Islamic Religious Education is a sustainable reform or merely a response to the emergency context of the pandemic.

In the field, various Islamic educational institutions such as madrasas and Islamic schools have adopted digital learning platforms like Google Classroom, Zoom, and local Learning Management Systems (LMS). During the pandemic, these tools became vital for maintaining learning continuity. Teachers began creating digital content, while students interacted through online media to learn about faith, worship, and morality. However, after schools reopened, many educators faced confusion about whether to maintain hybrid models or fully return to conventional teaching. Some schools continued to integrate digital tools due to their efficiency and accessibility, while others abandoned them due to limited competence and inadequate infrastructure. These dynamics illustrate that digital transformation in Islamic education has not yet reached a steady and systematic phase. Hence, understanding the perceptions of teachers and students toward these changes is essential for determining the direction of educational development in the digital era.

Several studies have analyzed the paradigm shift in education in the digital era. Susanti et al (2024), Khoiroh et al. (2024), and Aziz (2025) emphasized the importance of integrating innovative media, such as video-based learning, mobile applications, and online discussion platforms, to enhance student engagement in Islamic subjects. Kurniawan et al (2024) and Putri (2023) demonstrated that artificial intelligence tools, such as ChatGPT, can enhance teacher productivity by simplifying material development and classroom management. Meanwhile, Abubakari (2025) and Munawwaroh (2024) found that digital technology fosters a culture of lifelong learning in Islamic education by promoting self-paced learning and access to vast religious resources. These studies collectively emphasize that technology is not an optional tool but an integral element of modern education. However, they focus mainly on the

potential benefits of digital tools, often neglecting the socio-religious dimensions of how digitalization affects the internalization of Islamic values.

This study offers novelty by framing digital transformation in Islamic Religious Education as a dynamic interaction between technology, pedagogy, and spirituality. Unlike previous research that has emphasized either the benefits or challenges of e-learning, this study investigates the sustainability and necessity of e-learning within a post-pandemic context. The originality lies in assessing digital transformation not as a mere trend but as an evolving necessity tied to the lifestyle and mindset of post-pandemic generations. The study introduces a conceptual framework that interprets digital education as a new form of da'wah and value transmission compatible with contemporary realities. Thus, it contributes to the broader discourse on Islamic education reform by proposing a balanced paradigm, one that embraces innovation while maintaining the integrity of religious teachings in the digital age.

Based on these considerations, this research explores three central questions: (1) What forms of digital transformation have emerged in Islamic Religious Education after the pandemic? (2) What challenges and obstacles accompany its implementation? (3) How do educators and students perceive the ongoing use of digital technology in teaching Islamic values? The main argument developed is that digitalization in Islamic Religious Education is not merely an emergency response but a structural necessity. The assumption is that sustainable digital transformation can bridge access gaps, enhance pedagogical creativity, and maintain the relevance of Islamic education amidst modernization (Nisa' 2024; Widiyarsi, 2024). This argument aligns with global educational trends that emphasize digital literacy, critical thinking, and value-based learning as essential competencies for 21st-century learners.

The original contribution of this research lies in its integrative approach, which combines sociological, pedagogical, and theological perspectives to analyze digital transformation in Islamic Religious Education. The study contributes theoretically by conceptualizing digitalization as a strategic necessity for Islamic education reform, and practically by offering insights for policymakers and educators in formulating sustainable digital learning models. The tentative conclusion suggests that digital transformation is a necessity rather than a trend. It has redefined the nature of teaching, learning, and the transmission of values in Islamic education. Hence, future Islamic pedagogy must not reject technology but reinterpret it as a medium for nurturing faith, ethics, and creativity in the post-pandemic generation.

RESEARCH METHOD

This study employs a qualitative research design using a multi-site case study approach (Siregar et al., 2020). This design was chosen to allow an in-depth exploration of how digital transformation occurs in Islamic Religious Education (PAI) learning across different institutional contexts. A qualitative case study

enables researchers to understand phenomena holistically, focusing on participants' experiences, perceptions, and meanings rather than numerical data. The multi-site approach, which encompasses more than one educational institution, provides comparative insights and strengthens the credibility of the findings through cross-case validation. This design is appropriate because the phenomenon of digital transformation in Islamic education is complex, involving cultural, pedagogical, and technological dimensions that cannot be adequately captured through quantitative methods alone. Thus, the case study serves to uncover the dynamics of adaptation, innovation, and value transmission within post-pandemic digital learning environments.

The study was conducted at two educational institutions in Probolinggo, East Java, namely State Islamic Senior High School (MAN 1 Probolinggo) and Nurul Jadid Senior High School (SMA Nurul Jadid). Both schools were selected purposively based on two criteria: (1) active integration of digital learning systems after the COVID-19 pandemic, and (2) representativeness of different institutional types, public Islamic and private faith-based schools. These sites provided contrasting yet complementary perspectives on digital transformation within Islamic education. The informants consisted of 12 participants, comprising six teachers and school leaders (PAI teachers, vice principals for curriculum, and IT administrators) and six students (grades XI–XII) who actively engaged in online or hybrid learning. Informant selection used purposive sampling, focusing on individuals directly involved in implementing or experiencing digital-based learning. This selection ensured that data reflected both managerial and learner perspectives regarding digital transformation in Islamic Religious Education.

Data were collected using three main techniques: in-depth interviews, participant observation, and documentation analysis (Lobe et al., 2020). The semi-structured interviews explored participants' reflections on their experiences, challenges, and strategies in integrating digital technology with Islamic Religious Education. This approach allowed flexibility and depth in understanding individual perspectives. Participant observations were conducted during digital and hybrid classes to capture real-time teaching practices, media use, and the nature of religious interactions in virtual environments. Documentation analysis included lesson plans, online learning archives, screenshots of classroom activities, and institutional policy documents related to post-pandemic learning. These data collection methods were applied triangulatively to obtain comprehensive insights from multiple perspectives and ensure the contextual validity and credibility of the findings.

The collected data were analyzed using Miles and Huberman's (1994) interactive model, which consists of four interrelated components: data condensation, data display, data reduction, and verification or conclusion drawing (Winoto, 2022; Azizah et al., 2023). Data condensation focused on organizing and simplifying raw field information into meaningful categories

concerning digital transformation, pedagogy, and value integration. Thematic matrices and narrative summaries were used to display data, illustrating the relationships between emerging patterns. Redundant or irrelevant information was removed through data reduction to maintain analytic clarity. Verification and conclusion drawing were performed iteratively throughout the research process, ensuring interpretations were empirically grounded. This cyclical analytical approach enabled the researcher to uncover the underlying meanings and contextual dynamics of digital transformation in Islamic Religious Education within the post-pandemic era.

To ensure the credibility, dependability, confirmability, and transferability of the findings, several verification strategies were applied. Source triangulation was conducted by comparing information from teachers, students, and administrators. Method triangulation was achieved by cross-checking interview data with observations and documentation. Member checking was conducted by presenting the interpreted data to key informants to confirm the accuracy of the findings. Additionally, peer debriefing and audit trail documentation were maintained to enhance transparency and reliability throughout the research process. These procedures ensured that the findings accurately represented the lived experiences of participants and reflected the complex realities of digital transformation in Islamic Religious Education.

RESULT AND DISCUSSION

Result

The research findings reveal how digital transformation in Islamic Religious Education unfolds through teachers' varying levels of digital literacy, the integration of diverse learning media, and the reorientation of value-based teaching methods. The results highlight both progress and challenges in aligning technology with pedagogical and spiritual objectives, emphasizing that effective digitalization depends not only on infrastructure but also on teachers' competence, creativity, and institutional support systems.

Low Digital Literacy Levels Among Teachers Present a Serious Challenge

The operational definition of this sub-finding refers to the limited mastery of digital technology among Islamic Religious Education (PAI) teachers in implementing online and hybrid learning. In this context, digital literacy encompasses teachers' ability to utilize digital platforms, such as Learning Management Systems (LMS), create digital-based learning materials, and manage online assessments effectively. Field data revealed that many teachers remained at a basic digital competence level, using technology merely as a medium to deliver materials, not as a means to foster interactive and participatory learning. This condition indicates a significant imbalance between the demands of educational digitalization and the actual readiness of human resources in Islamic Religious Education.

Interviews with teachers revealed that digital literacy remains a significant obstacle in the teaching process. Teacher A stated, "I can only use WhatsApp and sometimes Google Forms, and even that is limited," showing that technology use is confined to basic communication tools without pedagogical innovation. Similarly, Teacher B admitted, "If I were asked to make an educational video, I wouldn't know where to start," which reflects a lack of confidence and absence of practical skills in digital media production. The researcher interprets these statements as signs of both technical and psychological barriers among teachers, where limited experience and a fear of making mistakes inhibit experimentation with new digital tools. This situation illustrates that the transformation process has not yet reached a stage of empowerment but remains at the level of adaptation and survival.

The head of the madrasah further confirmed these findings by explaining, "Most of our teachers have difficulty with LMS training and need assistance," indicating the absence of systematic institutional support for capacity building. Teacher D added, "We haven't had any further training since the pandemic ended," suggesting that the digital literacy programs initiated during the pandemic were not sustained after the pandemic ended. From these accounts, the researcher concludes that the issue is not only individual but also structural in nature. Institutions tend to focus on short-term adaptation rather than long-term development of digital competence. The lack of continuous professional training and the absence of digital support teams have created a vacuum that hampers the progress of digital transformation within Islamic Religious Education.

Observations conducted in both institutions reinforced the findings from the interviews. During digital and hybrid learning sessions, it was found that teachers predominantly used WhatsApp groups and PowerPoint slides as their primary means of communication. There was minimal use of interactive features such as quizzes, polls, or breakout discussions on LMS platforms. Some teachers displayed hesitation when operating projectors, managing video calls, or utilizing educational software. The researcher observed that the digital learning process often reverted to one-way communication, resembling traditional lectures rather than dynamic interaction. This observation aligns with the teachers' statements that they felt "left behind" by students who were more adept at using technology. Consequently, the digital learning environment has not yet realized its full potential for participatory and contextual religious instruction.

Based on the triangulated data, it is evident that teachers' digital literacy limitations have a multidimensional nature encompassing skill, mindset, and institutional culture. While technology infrastructure exists, the lack of human capacity remains a critical bottleneck. Teachers' reluctance to innovate digitally reflects both generational and pedagogical gaps. From a broader perspective, this issue illustrates the disconnect between national digital transformation policies and their implementation in schools. The gap between "policy readiness" and

“practical competence” undermines the objectives of digital transformation, especially in Islamic Religious Education, where the essence lies not only in transferring knowledge but also in nurturing moral and spiritual values.

In summary, this sub-finding indicates that the low digital literacy among Islamic Religious Education teachers presents a significant barrier to achieving sustainable digital transformation. The data highlight that technology adoption in education is not solely dependent on infrastructure but requires adequate human resource development. Without continuous training, mentoring, and institutional support, digital transformation risks becoming superficial, limited to formal compliance rather than authentic pedagogical innovation. Therefore, strengthening teachers’ digital literacy through ongoing professional development and the creation of digital mentoring ecosystems is essential to ensure that the transformation in Islamic Religious Education is both meaningful and sustainable.

Digital Integration Increases Access and Flexibility in Islamic Education Learning

The operational definition of this sub-finding refers to the observable process of integrating digital technology into Islamic Religious Education (PAI) learning to enhance accessibility, flexibility, and engagement. In the field, digital integration is manifested through the use of multiple platforms such as Google Classroom, Zoom, YouTube, and Islamic learning applications like Muslim Pro and Umma to facilitate both synchronous and asynchronous learning. This integration allows the teaching of religious materials to extend beyond the physical classroom, creating a continuous learning ecosystem where students can study, discuss, and reflect on Islamic values at their own pace and time.

The integration process follows a dynamic flow that begins with the teacher’s role as a digital facilitator. Teachers design digital lessons using platforms that best suit the topic: for example, using Zoom for real-time Qur’anic discussions, YouTube for lecture recordings, and Quizizz for formative assessment. This hybrid flow enhances learning flexibility and increases student participation, primarily through online discussion forums and post-class Q&A sessions. The researcher interprets this flow as a transformation from a one-way, teacher-centered learning model into a dialogic and interactive structure that accommodates diverse learning styles. Students’ engagement in video creation and online debates indicates the emergence of digital literacy as part of a faith-based learning identity.

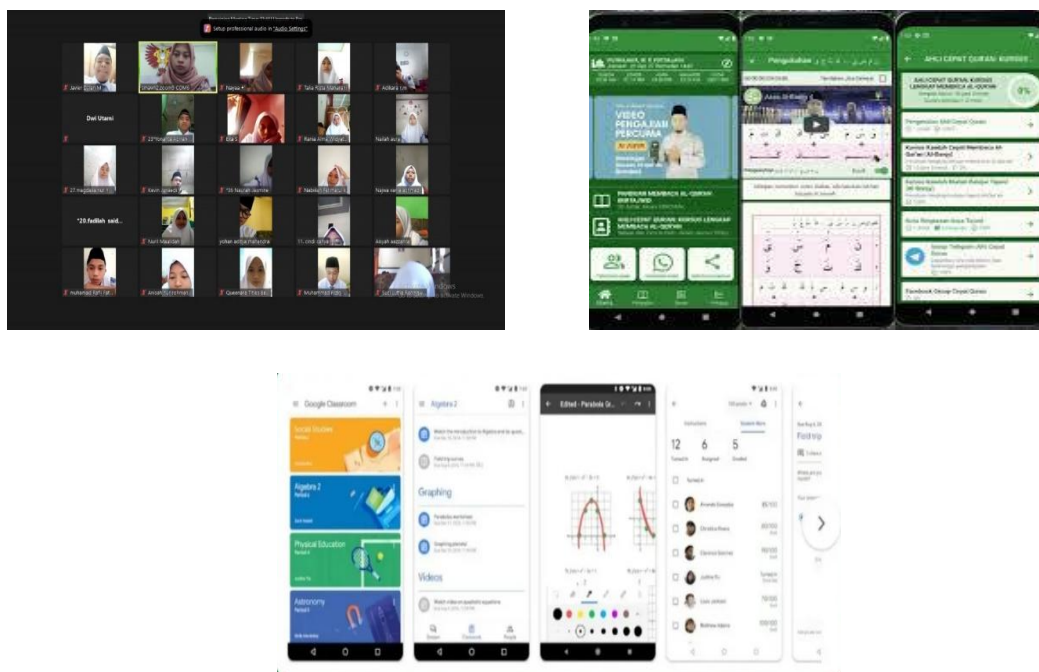


Figure 1. Learning Media Platform

Figure 1. The Learning Media Platform illustrates the networked ecosystem of platforms used in digital-based Islamic Religious Education. The figure illustrates how each platform, including Zoom, Google Classroom, WhatsApp, YouTube, and Islamic mobile applications, interacts functionally to form an integrated digital environment. From an interpretive perspective, this visual map reflects the multidimensional nature of Islamic learning in the digital era. Synchronous learning via Zoom ensures real-time communication, while asynchronous learning via YouTube and Google Classroom supports content flexibility. Meanwhile, social platforms like WhatsApp maintain continuous moral engagement outside class hours. The researcher interprets this ecosystem as a holistic framework for digital pedagogy that balances knowledge, values, and technology. In essence, the integration of diverse media represents not merely a technological adaptation but a pedagogical reorientation that transforms how Islamic values are taught, experienced, and lived in the digital age.

Observation results indicate that teachers who effectively integrate various media can translate abstract Islamic values into tangible, experiential learning. Through visual media, moral and faith-based teachings become easier to comprehend and more relatable to students' daily realities. The use of digital platforms also facilitates inclusivity, allowing students who tend to be passive in traditional classrooms to become more expressive and confident in digital spaces. Moreover, asynchronous materials such as podcasts, YouTube Shorts, and recorded lectures provide opportunities for independent learning, which aligns with the Islamic value of *thalabul 'ilm* (continuous pursuit of knowledge). These findings suggest that digital media not only serve as instructional tools but also

as cultural spaces where students negotiate and internalize Islamic values in a modern context.

Digitalization Drives Reorientation of Values Education Methods

An analysis of learning documents from two educational institutions shows that digitalization is driving changes in the methods of teaching values in Islamic Religious Education. Documents such as digital lesson plans (RPP), syllabi, and multimedia-based teaching materials indicate that teachers are moving away from conventional lecture methods and toward more creative and contextual approaches. Teachers are developing learning materials in the form of video storytelling, interactive e-books, and Google Form-based evaluations. This approach provides more space for students to explore values and reflect on religious teachings in real-life situations. Documentation also shows that teachers are developing content with familiar digital platforms, such as YouTube and Instagram, in mind to convey their message more effectively. This demonstrates that digital transformation extends beyond the technical aspects of delivery to the substance of religious values and teaching methods.

Table 1. Visualization

Document Type	Digital Content	Indications of a Change in Strategy
Digital Lesson Plan	Preaching videos, mini lectures	From lectures to visual storytelling
Interactive PAI module	YouTube link, Islamic e-book	Multimedia content integration
Google Form for student morale evaluation	Reflective quiz on values and attitudes	Evaluation based on values, not memorization
Presentation slides of creed material	Visualization of verses, infographics	Contextual and visual approach

The documentation presented in tale 1 reinforces the finding that digitalization is not merely a teaching tool, but has also driven methodological changes in values education. Teachers have begun designing more contextual and dialogical learning. Through a media-based approach, students are encouraged to reflect on religious teachings in real-life contexts, rather than simply accepting abstract doctrines. The digital modules used no longer contain only reading material but also integrate aesthetic elements, narratives, and calls for reflection. Student engagement in life-experience-based assignments also indicates that this approach can stimulate a more personal internalization of values. This demonstrates that digitalization has shifted the function of religious education from merely conveying information to actively and contextually building character.

This documentation confirms that the digital transformation in Islamic Religious Education has opened up space for a more adaptive, creative, and

contextual approach to values learning. Teachers act as facilitators, aligning religious messages with the challenges of modern life. In this context, values such as tolerance, honesty, and social responsibility are not merely taught as abstract concepts, but are brought to life through actual learning experiences. Digitalization serves as a medium for bridging the gap between religious texts and students' realities, making the educational process more relevant to the current times. Thus, digital learning documentation not only reflects the success of technology integration but also marks the emergence of a new paradigm in religious education that is more humanistic, transformative, and rooted in real life.

Discussion

The findings of this study highlight a persistent issue of low digital literacy among teachers, which substantially affects the quality of Islamic Religious Education in the digital era. This observation aligns with Rahmawati (2023) and Alazzam (2025), who found that inadequate teacher preparedness often leads to a superficial form of digitalization, where technology functions merely as a delivery channel rather than facilitating pedagogical transformation. However, this study deepens the understanding by showing that the problem is not only technical but also epistemological. Teachers often replicate traditional instructional models on digital platforms without rethinking the learning dynamics (Bali, 2024; Kabba, 2024). Theoretically, this finding reinforces the constructivist perspective that technology should serve as an enabler for interaction and meaning-making. Practically, it suggests that teacher training programs must move beyond operational skills toward cultivating digital pedagogy as a reflective practice.

This study also reveals that both structural and cultural dimensions strongly influence digital literacy challenges. Consistent with bin Youssef Shaheen et al. (2024) and Ni'mah (2024), the absence of systematic institutional support and ongoing ICT mentoring contributes to teachers' disorientation in managing online learning environments. Yet, this research diverges slightly by identifying cultural inertia, particularly among older teachers, as an equally decisive barrier. Such resistance reflects a deeper gap in digital mindset transformation. Theoretically, this insight expands discussions on organizational learning in Islamic schools, underscoring the interplay between culture and structure in shaping digital adaptation (Klimova et al., 2021; Tias et al., 2022). From a practical standpoint, it implies the necessity for madrasah leaders to establish supportive ecosystems that encourage Experimentation and reduce psychological barriers to technological change.

Observations further demonstrate that technology, when appropriately structured, can foster inclusive and flexible learning spaces that transcend traditional classroom boundaries. Similar to Arim et al. (2024), Suwendi et al. (2025), and Wahid et al. (2025), this study found that digital tools enable greater

personalization in the internalization of Islamic values. However, the results also emphasize that flexibility alone is insufficient without pedagogical intentionality. Teachers who intentionally align digital tools with moral and spiritual goals are more successful in creating interactive and meaningful learning experiences. This supports the view that technology integration must be grounded in a value-oriented pedagogy, bridging technical fluency with moral vision (Achruah et al., 2024; Zabolotska et al., 2021). Theoretically, it strengthens the framework of transformative digital education, while practically, it encourages Curriculum designers to integrate digital ethics into instructional design.

The analysis of learning documentation reveals a paradigmatic shift in value education from doctrinal transmission toward reflective and experiential learning. Consistent with Zaqiah et al. (2024), Reinhold (2021), and Syamsuni et al. (2025), teachers began to utilize case studies, visual narratives, and reflective projects that allow students to experience Islamic values in real-life contexts. The difference, however, lies in the degree of integration that this research shows digital tools serve not merely as supplementary media, but as catalysts for developing critical and empathetic thinking within religious learning (Suliman et al., 2023). Theoretically, this contributes to the discourse on humanistic religious education, suggesting that digital environments can sustain affective engagement without compromising spiritual depth. Practically, it calls for redesigning digital content that balances cognitive, affective, and moral dimensions.

Taken together, these findings reveal that the success of digital transformation in Islamic Religious Education depends on teachers' reflective capacity and institutional readiness. Technology alone does not guarantee innovation; it requires an alignment of vision, culture, and pedagogy. This study, therefore, contributes theoretically by refining the understanding of digital literacy as a multidimensional construct encompassing technical, cultural, and ethical competencies. Practically, it offers a framework for policy and practice, encouraging madrasahs to develop continuous professional development models and collaborative digital ecosystems that sustain both pedagogical innovation and the moral essence of Islamic education in the digital age.

CONCLUSION

The study concludes that digital transformation in Islamic Religious Education represents more than a shift toward technological adoption; it is a redefinition of pedagogical practice and value transmission in the digital era. The most significant lesson derived from the findings is that while digitalization provides broader access, flexibility, and engagement in learning, its success largely depends on teachers' digital competence and institutional support. Low digital literacy among teachers remains a significant barrier, hindering the effective use of technology as a transformative pedagogical tool. The study makes a substantial contribution to scientific knowledge by articulating a

multidimensional understanding of digital literacy that integrates technical, cultural, and ethical dimensions within the context of Islamic education. It also introduces an interpretive framework that shows how digital media can foster moral and spiritual formation through interactive and reflective learning processes.

However, this research is limited in scope as it focuses primarily on qualitative insights and does not quantitatively measure the impact of digital practices on students' learning outcomes or moral development. Future studies should adopt a mixed-method or longitudinal approach to evaluate the long-term effects of digital transformation on both pedagogical quality and value internalization. Expanding the research to diverse educational settings with varying levels of digital maturity will also help develop a more comprehensive understanding of how technology can meaningfully enhance Islamic Religious Education.

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