

E-Learning-Based Instructional Design in Islamic Religious Education for Enhancing Religious Literacy

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Abstract

The rapid advancement of information technology in the digital era necessitates a transformation in Islamic Religious Education is known in Indonesia as Pendidikan Agama Islam (PAI) through innovative instructional design to address the challenges of low student religious literacy. This study aims to analyze the learning design of e-learning-based Islamic Religious Education (PAI) in improving students' religious literacy. This research uses a qualitative approach with the type of library research through the analysis of various relevant literature sources. The results of the study show that learning design is the main foundation in the learning process which includes the formulation of objectives, preparation of materials, selection of methods, use of media, and systematic evaluation of learning. The integration of e-learning in learning design does not only serve as a medium, but as part of a learning system that allows for flexibility, interactivity, and independent learning. The implementation of e-learning in PAI learning is able to improve students' religious literacy through broad access to learning resources, online discussions, and reflective and contextual learning. However, there are several challenges, such as limited infrastructure, low digital literacy, and suboptimal learning design. Therefore, it is necessary to strengthen the competence of educators and develop an integrated learning design so that e-learning-based PAI learning can run effectively.

Keywords: Learning Design, E-Learning, Islamic Religious Education, Religious Literacy, Digital Learning.

Introduction

The rapid development of information and communication technology in the digital era has significantly transformed various aspects of human life, including education. This transformation has shifted the learning paradigm from conventional approaches toward more flexible, open, and technology-based learning environments. In this context, digital technology is no longer merely a complementary tool but has become an integral part of the

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learning process.¹ Therefore, innovation in instructional design is essential to meet the demands of the digital age and the increasingly dynamic needs of learners.

Islamic Religious Education (Pendidikan Agama Islam/PAI), which plays a crucial role in shaping students' character and spirituality, is also required to adapt to these changes.² However, in practice, PAI learning still faces several challenges. One of the main issues is the dominance of conventional, teacher-centered approaches, such as lecture-based methods. This condition often results in passive learning, where students are less actively engaged in the learning process, leading to a superficial understanding of Islamic teachings.

In addition, the low level of students' religious literacy has become a serious concern in PAI learning. Religious literacy does not only involve the ability to read and understand religious texts, but also includes the ability to analyze, evaluate, and apply Islamic values in daily life. In the digital era, characterized by the rapid flow of information, students are exposed to a wide range of religious content, including information of questionable validity. Without adequate religious literacy, students are at risk of misunderstanding religious teachings.³

On the other hand, advancements in educational technology have introduced various digital-based learning alternatives, one of which is e-learning. E-learning enables flexible learning processes that are not limited by time and space, while also providing opportunities for independent and interactive learning. It allows students to access diverse learning resources and encourages greater engagement in the learning process. A systematic mapping of research by Bond et al. (2020) confirms that digital technology has become a central aspect of higher education, inherently affecting all dimensions of student engagement.⁴ In the specific context of Islamic Religious Education (PAI), Nasor and Sari (2025) emphasize that e-learning is 'not merely a matter of technology, but also about how Islamic values can be effectively transmitted and touch the heart within digital spaces'.⁵ Supporting this, Sinukun (2025) demonstrates that postgraduate students can sustain 'meaningful academic dialogue' despite being in virtual environments.⁶ However, a critical gap remains as the implementation often hits a wall; Rasheed et al. (2020) identify that students frequently struggle with 'self-regulation challenges', while Mukarromah et al. (2025) find that low digital literacy among teachers remains a 'significant hindrance' to effective pedagogical

¹ Sazkia Nazilla et al., "Eksplorasi Penggunaan Media Digital Dalam Pembelajaran PAI: Tantangan Dan Peluang Di Era Digital," *Jurnal Ilmiah Profesi Pendidikan* 10, no. 1 (2025), <https://doi.org/10.29303/jipp.v10i1.2981>.

² Sulasno, Arsyad Danish Al Bawasil, and Nurul Mubin, "Pendidikan Agama Islam di Era Disrupsi: Tantangan, Transformasi, dan Rekonstruksi Paradigma Pembelajaran Kontemporer" 3, no. 2 (January 2026).

³ Beti Setiawati, Zainap Hartati, and Nurul Hikmah, "Evaluasi Program Literasi Al-Qur'an Di MTsN 2 Kota Palangka Raya," *Jurnal Ilmu Agama* 8, no. 4 (2025), <https://jayapanguspress.penerbit.org/index.php/kamaya>; Herman Zuhdi and Latifah, "Pengembangan Metode Pembelajaran PAI Berbasis Teknologi Informasi," *EduCurio: Education Curiosity* 4, no. 1 (November 13, 2025): 144–49, <https://doi.org/10.71456/ecu.v4i1.1514>.

⁴ Melissa Bond et al., "Mapping Research in Student Engagement and Educational Technology in Higher Education: A Systematic Evidence Map," *International Journal of Educational Technology in Higher Education* 17, no. 2 (2020).

⁵ M Nasor, Nina Ayu, and Puspita Sari, "Pembelajaran Pai Berbasis E-Learning: Peluang Dan Tantangan," *UNISAN JURNAL: Jurnal Manajemen Dan Pendidikan* 4, no. 4 (2025): 1–9.

⁶ Siti Rosdian Sinukun, "Challenges and Opportunities of Online Learning in Islamic Higher Education: A Case Study of Master 's Program at UIN Datokarama," *Proceeding of International Conference on Islamic and Interdisciplinary Studies (ICIIS)* 4 (2025): 477–79.

integration.⁷ This study addresses this theoretical and empirical gap by analyzing how a systematic e-learning-based instructional design can bridge these challenges to specifically foster religious literacy.⁸

Despite its potential, the implementation of e-learning in PAI learning remains suboptimal. In many cases, e-learning is only used as a supplementary tool, such as for uploading materials or assigning tasks, without being supported by a systematic instructional design. In fact, instructional design plays a critical role in determining the direction and quality of the learning process. A well-structured instructional design involves needs analysis, formulation of learning objectives, selection of appropriate strategies and models, effective use of media, and integrated evaluation.

This gap between the potential of e-learning and the still conventional practices in PAI learning indicates the need for developing an instructional design that effectively integrates technology. E-learning-based PAI instructional design should not merely function as a means of content delivery, but also as a framework for creating meaningful learning experiences through interaction, collaboration, and reflection on religious values. In this sense, PAI learning should not only focus on cognitive outcomes but also foster the development of attitudes and skills aligned with Islamic values.⁹

Furthermore, the integration of e-learning into instructional design has significant potential to enhance students' religious literacy. By utilizing various digital learning resources, students can access broader information, engage in independent knowledge exploration, and develop critical thinking skills regarding religious issues. This is particularly important in addressing the challenges of the digital era, which require comprehensive literacy competencies.

Based on the above considerations, it can be understood that PAI learning still faces significant challenges, particularly in terms of low religious literacy and the limited integration of e-learning in instructional design. Therefore, it is important to examine how e-learning-based instructional design in Islamic Religious Education can be effectively developed and implemented to enhance students' religious literacy. This study aims to analyze the concept and implementation of e-learning-based PAI instructional design and its relevance in improving religious literacy in the digital era. The findings of this study are expected to contribute to the development of more innovative, adaptive, and contextual PAI learning.

⁷ Rasheed Abubakar Rasheed, Amirrudin Kamsin, and Nor Aniza Abdullah, "Computers & Education Challenges in the Online Component of Blended Learning : A Systematic Review," *Computers & Education* 144, no. March 2019 (2020): 103701, <https://doi.org/10.1016/j.compedu.2019.103701>; Azizeh Mukarromah, Abu Hasan Agus R, and Umar Manshur, "Digital Transformation in Islamic Religious Education : Trend or Necessity in the Post- Pandemic Era" 04, no. 01 (2025): 85–99.

⁸ Haliyana Haliyana, "Efektivitas Pembelajaran Berbasis E-Learning Dalam Peningkatan Keaktifan Belajar Siswa SMAN 8 Maros," *Jurnal Idiomatik: Jurnal Pendidikan Bahasa Dan Sastra Indonesia* 4, no. 2 (December 27, 2021): 46–51, <https://doi.org/10.46918/idiomatik.v4i2.1173>; Restu Permohonan Hasibuan, Makruf Makruf, and Gusmaneli Gusmaneli, "Strategi Pembelajaran PAI Berbasis Teknologi Digital Untuk Meningkatkan Literasi Keagamaan," *AL-MUSTAQBAL: Jurnal Agama Islam* 2, no. 2 (April 16, 2025): 01–12, <https://doi.org/10.59841/al-mustaqbal.v2i2.90>.

⁹ Al Hafila Hafiz et al., "Pengembangan Modul Interaktif Untuk Kurikulum Pendidikan Agama Islam Berbasis Digital," *Journal of Innovative Research* 01 (2024): 193–201, <https://ziaresearch.or.id/index.php/mesada>; Miftahul Jannah, Nur Aini, and Neni, "Integrasi Nilai Religius Dalam Desain Pembelajaran PAI Berbasis Digital Pada Era Society 5.0," *AL-MUSTAQBAL: Jurnal Agama Islam* 2, no. 4 (November 2025).

Research Method

This study employed a qualitative approach with a library research design to examine e-learning-based instructional design in Islamic Religious Education (PAI) and its role in enhancing students' religious literacy. Data were collected through a systematic search protocol across digital databases, specifically Sinta and Google Scholar, supplemented by manual searching (hand-searching) of official journal homepages and the Google search engine to ensure comprehensive coverage. The keywords utilized for the search were identical to the research focus: "e-learning-based instructional design," "Islamic Religious Education," and "religious literacy".

The selection of literature followed strict inclusion criteria: first a primary focus on peer-reviewed publications from the last five years (2021-2026) to ensure pedagogical recency in the post-pandemic era. Second, inclusion of relevant studies from the last decade (2016-2026) to capture the evolution of digital PAI. And third, selective inclusion of landmark international research from approximately 15 years ago characterized by robust empirical data and foundational theoretical contributions.

The collected data were analyzed using qualitative content analysis, which involved three systematic stages: data reduction, data categorization, and data interpretation. In the reduction stage, relevant information was selected and focused on the core research themes; in the categorization stage, data were grouped into thematic clusters such as instructional design components and religious literacy development; and in the interpretation stage, relationships among these categories were analyzed to construct a comprehensive conceptual framework. To ensure the validity of the findings, source triangulation was applied by comparing multiple references and performing repeated readings to maintain consistency of interpretation.

Results and Discussion

Concept of E-Learning-Based Instructional Design in Islamic Religious Education

A synthesis of current academic literature suggests that instructional design in Islamic Religious Education (PAI) serves as a critical determinant of learning effectiveness, particularly when integrated into digital environments. Bond et al. (2020) emphasize that while technology has become a central aspect of higher education, its success in fostering engagement depends heavily on "careful planning and sound pedagogy" rather than the tools themselves.¹⁰ In the specific context of PAI, Nador and Sari (2025) argue that e-learning implementation is not merely a technical matter but a strategic effort to ensure Islamic values can effectively "touch the heart" within digital spaces.¹¹

Despite its potential, literature highlights systemic challenges in the online components of learning. Rasheed et al. (2020) identify that students frequently struggle with "self-regulation challenges," while teachers often face difficulties in managing instructional

¹⁰ Bond et al., "Mapping Research in Student Engagement and Educational Technology in Higher Education : A Systematic Evidence Map."

¹¹ Nador, Ayu, and Sari, "Pembelajaran Pai Berbasis E-Learning : Peluang Dan Tantangan."

technology.¹² This is further reinforced by Mukarromah et al. (2025), who found that low digital literacy among PAI teachers remains a "serious challenge" that hinders the meaningful integration of technology in value-based education.¹³

However, evidence from Sinukun (2025) demonstrates that when properly designed, online platforms allow students to sustain "meaningful academic dialogue" and active participation regardless of physical distance.¹⁴ Therefore, e-learning-based instructional design must be viewed as a systematic framework that bridges the gap between digital accessibility and the internalization of religious literacy.¹⁵

The analysis of existing pedagogical frameworks reveals that PAI instructional design has a higher level of complexity compared to general subjects due to its multidimensional objectives. As noted by Sukron Djazilan and Mila Hariani (2022), PAI not only aims to develop knowledge but also to foster religious attitudes, moral values, and behavioral transformation.¹⁶ This implies that effective instructional design in PAI must integrate cognitive, affective, and psychomotor domains in a balanced manner. The literature synthesis suggests that when these components are systematically aligned, students are more likely to internalize and apply Islamic values in real-life contexts. This perspective provides a deeper dimension compared to previous approaches that tend to emphasize content delivery without sufficient attention to value internalization.

Furthermore, the study reveals that the integration of e-learning fundamentally transforms the role of instructional design from a static plan into a dynamic learning system. E-learning enables flexible access to learning resources, supports interactive learning environments, and facilitates collaborative knowledge construction. However, the findings highlight that these advantages are not automatically achieved through the use of technology alone. Instead, they depend on how instructional design structures learning activities to promote engagement, reflection, and critical thinking. This contrasts with common practices where e-learning is used only for content distribution, resulting in minimal pedagogical impact.¹⁷

Another important finding is that each component of instructional design contributes differently to learning effectiveness when integrated with e-learning. Clearly defined learning objectives provide direction, while contextualized learning materials enhance relevance. Student-centered strategies increase participation, and digital media expand access to diverse resources. Evaluation, when designed holistically, captures not only

¹² Rasheed, Kamsin, and Abdullah, "Computers & Education Challenges in the Online Component of Blended Learning : A Systematic Review."

¹³ Mukarromah, R, and Manshur, "Digital Transformation in Islamic Religious Education : Trend or Necessity in the Post- Pandemic Era."

¹⁴ Sinukun, "Challenges and Opportunities of Online Learning in Islamic Higher Education : A Case Study of Master ' s Program at UIN Datokarama."

¹⁵ Hafila Hafiz et al., "Pengembangan Modul Interaktif Untuk Kurikulum Pendidikan Agama Islam Berbasis Digital"; Restu Permohonan Hasibuan, Makruf Makruf, and Gusmaneli Gusmaneli, "Strategi Pembelajaran PAI Berbasis Teknologi Digital Untuk Meningkatkan Literasi Keagamaan."

¹⁶ Muhammad Sukron Djazilan and Mila Hariani, "Implementation of E-Learning-Based Islamic Religious Education," *INTI-Bulletin of Science, Technology and Society* 1, no. 2 (2022): 14–21.

¹⁷ Rahmadani Suci, "Strategi Pembelajaran Pendidikan Agama Islam Di Era Digital: Tinjauan Literatur Kualitatif," *Jurnal Media Akademi* 2, no. 6 (2024): 3031–5220.

cognitive achievement but also attitudinal and behavioral changes¹⁸. The interaction among these components creates a synergistic effect that strengthens the overall learning experience. This finding reinforces the idea that instructional design should be viewed as an interconnected system rather than a set of isolated elements¹⁹.

Overall, the findings suggest that the effectiveness of PAI learning in the digital era is not determined by the availability of technology, but by the ability to design learning in a systematic and integrative manner. The novelty of this study lies in positioning e-learning not as an external tool, but as an integral component of instructional design that shapes the learning process. This conceptual shift provides a more comprehensive framework for understanding how technology can be effectively utilized to support meaningful and value-oriented learning in Islamic Religious Education.

Models of E-Learning Implementation in Islamic Religious Education

A review of current academic frameworks reveals that the implementation of e-learning in Islamic Religious Education (PAI) is most effective when grounded in a structured instructional design rather than treated as a standalone technological addition. The literature synthesis identifies three dominant models of e-learning implementation in PAI: blended learning, fully online learning, and web-enhanced learning. Each model offers distinct advantages and faces specific challenges in the context of value-based education. To provide a clearer understanding of these models, table 1 outlines the characteristics of each implementation model based on the reviewed literature.

The literature synthesis identifies three dominant models of e-learning implementation in PAI learning: blended learning, fully online learning, and web-enhanced learning. Each model demonstrates different levels of effectiveness depending on how learning activities are structured. Blended learning emerges as the most balanced model, as it successfully integrates face-to-face moral interaction with digital flexibility.²⁰ Bond et al. (2020) confirm that this delivery mode is highly effective in fostering engagement across behavioral, affective, and cognitive dimensions.²¹ This model is particularly vital in the PAI context because it maintains direct social and moral interaction while enabling technology-supported learning, which overcomes the limitations of conventional classroom instruction that often results in student disengagement.

In contrast, fully online learning provides maximum flexibility and accessibility, allowing students to learn beyond spatial and temporal constraints. Sinukun (2025) demonstrates that this model can sustain "meaningful academic dialogue" even in virtual

¹⁸ Muallifah Muallifah, "Strategi Pendidikan Inklusif : Konteks E-Learning Pada Mahasiswa Difabel Tuna Rungu Dan Tuna Netra," *Tarbawi* 10, no. 1 (2021): 65–76, <https://jurnal.alfithrah.ac.id/index.php/tarbawi/article/view/162>.

¹⁹ Hosam Al-Samarraie, Aizat Shamsuddin, and Ahmed Ibrahim Alzahrani, "A Flipped Classroom Model in Higher Education: A Review of the Evidence across Disciplines," *Educational Technology Research and Development* 68, no. 3 (2020): 1017–51, <https://doi.org/10.1007/s11423-019-09718-8>.

²⁰ Rasheed, Kamsin, and Abdullah, "Computers & Education Challenges in the Online Component of Blended Learning : A Systematic Review"; Muhammad Sulaiman, "Development of Blended Learning-Based E-Module for Islamic Religious Education Learning Pengembangan E-Module Berbasis Blended Learning Pada Pembelajaran Pendidikan Agama Islam," *Procedia of Social Sciences and Humanities International Symposium on the Interplay of Science, Technology, and Socio-Economic Development* 0672, no. 55 (2024): 113–24.

²¹ Bond et al., "Mapping Research in Student Engagement and Educational Technology in Higher Education : A Systematic Evidence Map."

environments.²² Yumnah (2021) adds that it increases learning independence and is effective during emergency conditions like a pandemic.²³ However, Rasheed et al. (2020) warn that without strong instructional guidance and self-regulation skills, fully online learning may reduce interaction depth.²⁴ Furthermore, Nasor (2025) highlights the risk of weakening the internalization of religious values in an impersonal digital space.²⁵

Table 1. Comparative Characteristics of Implementation Models

| Implementation Model | Advantages | Disadvantages | Literature Support |
|-----------------------------|---|---|---|
| Blended Learning | Combines face-to-face interaction with online flexibility; maintains direct social and moral interaction; increases student engagement and understanding; reduces online transactional distance; cost-effective; deemed the most balanced and effective model for PAI higher education. | Requires teachers to be technologically competent; requires institutional provision of suitable instructional technology and training support; students need self-regulation skills. | Bond et al., 2020; Sulaiman, 2024; Rasheed et al., 2020 |
| Fully Online | Maximum flexibility of access (not limited by time/space); promotes independent learning and student-centered autonomy; increases digital engagement and literacy; allows active participation from students who might be passive in physical classrooms. | Potential reduction in spiritual connection and depth of moral interaction; risk of digital fatigue and lack of motivation; requires high self-discipline; obstacles like internet instability and device limitations; can lead to misconceptions without guidance. | Sinukun, 2025; Yumnah, 2021 |
| Web-enhanced | Reinforces conventional instruction through additional digital resources; supports learning through videos, digital modules, and online discussions; useful for delivering content like infographics and recorded lectures as supplementary material. | Limited impact on overall learning transformation compared to more integrated models; partial integration may not be sufficient to significantly improve religious literacy or affective outcomes. | Nasor & Sari, 2025; Dahmayanti & Nurmila, 2024 |

Meanwhile, web-enhanced learning functions primarily as a complementary model supporting conventional instruction. Dahmayanti & Nurmila (2024) indicate that this model is useful for reinforcing learning through additional resources like videos and digital

²² Sinukun, “Challenges and Opportunities of Online Learning in Islamic Higher Education : A Case Study of Master ‘ s Program at UIN Datokarama.”

²³ Siti Yumnah, “E - Learning Based Islamic Religious Education Of Learning Media : Alternative Solutions For Online Learning During Covid - 19,” *Nazhruna: Jurnal Pendidikan Islam* 4, no. 2 (2021): 249–60.

²⁴ Rasheed, Kamsin, and Abdullah, “Computers & Education Challenges in the Online Component of Blended Learning : A Systematic Review.”

²⁵ Nasor, Ayu, and Sari, “Pembelajaran Pai Berbasis E-Learning : Peluang Dan Tantangan.”

materials.²⁶ However, the literature suggests that its impact on religious literacy is relatively limited compared to more integrated models, as it often remains a superficial supplement rather than a systematic transformation.

Beyond model selection, the reviewed studies reveal that the effectiveness of e-learning is closely linked to the design of learning activities. Interactive components like video-based learning facilitate conceptual understanding through visual representation. Mukarromah et al. (2025) observe that digital platforms can foster inclusive spaces where passive students become more expressive.²⁷ Furthermore, project-based learning and reflective online discussions encourage students to apply religious knowledge in practical contexts, thereby strengthening both cognitive and affective dimensions of religious literacy.

The Role of Instructional Design in Enhancing Religious Literacy

Evidence from the reviewed literature suggests that instructional design plays a central role in enhancing students' religious literacy, particularly within digital learning environments. Religious literacy extends beyond basic comprehension of religious texts to include the ability to analyze, evaluate, and apply Islamic values in real-life situations. Zain (2025) emphasizes that the role of teachers as "learning designers" is a key determinant of student engagement, when teachers intentionally plan student-centered activities, students demonstrate greater persistence and interest in religious literacy.²⁸

The analysis reveals that systematic and structured approaches are required to facilitate deep understanding of complex religious concepts. For instance, Iryanti & Oviyanti (2025) highlight that appropriate instructional design including the identification of objectives and relevant teaching strategies can increase learning efficiency and improve the practical application of Fiqh knowledge.²⁹ Furthermore, Edi et al. (2025) argue that structured and innovative e-learning functions as a strategic solution for forming a generation of Muslims who are not only digitally competent but also strong in religious understanding amidst technological disruption.³⁰ However, Suhilmiati et al. (2024) remind that digital literacy involves more than technical skills; it requires the critical capability to evaluate and filter information found online.³¹ Therefore, this synthesis suggests that instructional design should not merely focus on content delivery, but on creating reflective and contextual environments that empower students to navigate the complexities of religious information in the digital era.

The analysis reveals that poorly structured learning designs contribute significantly to low levels of religious literacy. Traditional approaches that emphasize memorization and

²⁶ Siti Dahmayanti and Nina Nurmila, "E-Learning Integration : Transforming Islamic Education Through Enhanced Learning Experiences," *Jurnal Inovasi Pendidikan Agama Islam* 4, no. 2 (2024): 81–94.

²⁷ Mukarromah, R, and Manshur, "Digital Transformation in Islamic Religious Education : Trend or Necessity in the Post- Pandemic Era."

²⁸ Biqi Asshafah Zain, "The Role of Teachers as Learning Designers in Enhancing Students ' Interest for Reading Arabic Texts," *Arabic Pedagogy Journa* 01, no. 02 (2025).

²⁹ Nurlista Iryanti and Fitri Oviyanti, "Developing Effective Instructional Design For Fiqh Reading Materials In Islamic Education," *Global Expert: Jurnal Bahasa Dan Sastra* 13, no. 1 (2025): 19–24.

³⁰ Deden Edi et al., "Improving Religious Literacy Through E- Learning In The Era Of Technological Disruptions," *At-Tarbiyat: Jurnal Pendidikan Islam* 08, no. 02 (2025): 268–80.

³¹ Endhang Suhilmiati et al., "The Role of Digital Literacy in Islamic Religious Education Learning in the Technology Era at MAN 3 Banyuwangi," *International Journal of Educational Research Excellence (IJERE)* 03, no. 01 (2024): 313–20, <https://doi.org/10.55299/ijere.v3i1.832>.

textual understanding limit students' ability to contextualize religious teachings.³² In contrast, this study finds that instructional design that incorporates critical thinking activities and contextual learning tasks enables students to engage more deeply with religious content. This result supports previous findings that emphasize the importance of active learning environments in developing higher-order thinking skills, while also extending them into the domain of religious literacy.

The literature analysis demonstrates that the integration of e-learning within instructional design significantly enhances access to diverse and authentic learning resources. Arifin et al. (2024) and Putri et al. (2025) highlight that students are able to engage with various forms of digital content, such as scholarly articles, lectures, and multimedia materials, which enrich their understanding of Islamic teachings.³³ Students are able to engage with various forms of digital content, such as scholarly articles, lectures, and multimedia materials, which enrich their understanding of Islamic teachings. However, the study also demonstrates that access alone does not guarantee improved literacy. Instead, learning outcomes depend on how instructional design guides students in critically selecting, interpreting, and evaluating information. This finding aligns with studies highlighting the importance of digital literacy skills in navigating online information.³⁴

Furthermore, the findings show that interactive and collaborative learning activities facilitated by e-learning contribute substantially to the development of religious literacy. Online discussion forums, for instance, provide opportunities for students to exchange ideas, construct arguments, and reflect on diverse perspectives regarding religious issues. This process not only enhances comprehension but also fosters critical awareness and tolerance. Such outcomes are consistent with previous research indicating that dialogic and collaborative learning environments can promote deeper understanding and reflective thinking.³⁵

Another significant finding is that e-learning-based instructional design promotes self-directed learning, which is a crucial component of religious literacy. Students are encouraged to independently explore learning materials, manage their learning pace, and take responsibility for their understanding. This autonomy allows students to develop a more personalized and meaningful engagement with religious knowledge. However, the study also finds that without proper instructional guidance, self-directed learning may lead to misconceptions, particularly when students encounter unverified religious information online. This highlights the importance of structured guidance within instructional design. In addition, the study demonstrates that contextual learning approaches within e-learning environments enhance the internalization of religious values. When learning materials are

³² Nurdiah, "Peningkatan Literasi Keagamaan Melalui Pembelajaran PAI Berbasis Literasi Digital," *Khidmat: Jurnal Pendidikan Dan Ilmu Sosial* 3, no. 1 (2025): 188–93, <https://ejournal.edutechjaya.com/index.php/khidmat/article/view/1499>.

³³ Zaenal Arifin, Agung Bayu Saputra, and Jaenullah Jaenullah, "Web-Based Learning Model (E- Learning) in PAI Learning," *Assyfa International of Multidisciplinary Education* 1, no. August 2023 (2024): 153–61; Adi Tri Atmaja et al., *Media Pembelajaran Interaktif* (Jawa Tengah: Naba Edukasi Indonesia, 2025).

³⁴ Wan Ng, "Can We Teach Digital Natives Digital Literacy?," *Computers and Education* 59, no. 3 (2012): 1065–78, <https://doi.org/10.1016/j.compedu.2012.04.016>; Nur Ainiyah, "Membangun Penguatan Budaya Literasi Media Dan," *Jpii* 2 (2017): 65–77.

³⁵ Stefan Hrastinski, "A Theory of Online Learning as Online Participation," *Computers and Education* 52, no. 1 (2009): 78–82, <https://doi.org/10.1016/j.compedu.2008.06.009>.

connected to real-life situations, such as ethical issues in digital communication or social interactions, students are more likely to understand the relevance of Islamic teachings in contemporary contexts. This finding suggests that instructional design should not only focus on knowledge transmission but also on facilitating the application of religious values in daily life.

Despite these positive findings, several challenges remain. The study identifies that the effectiveness of instructional design is often constrained by limited pedagogical use of technology and insufficient teacher readiness. Moreover, the risk of reducing religious learning to purely cognitive activities in digital environments remains a concern. This finding contrasts with the assumption that digital learning automatically enhances educational quality, emphasizing instead that pedagogical quality remains the primary factor.

Overall, the findings suggest that instructional design is the key mechanism through which e-learning can effectively enhance religious literacy. The novelty of this study lies in its emphasis on the integration of critical, interactive, and contextual learning within e-learning-based instructional design, rather than relying solely on technological accessibility. Therefore, improving religious literacy requires a shift from content-oriented teaching to design-oriented learning that actively engages students in meaningful and reflective learning processes.

Implications and Challenges of E-Learning-Based Instructional Design in PAI

A synthesis of academic literature shows that the implementation of e-learning-based instructional design in PAI has transformative implications for student independence and learning outcomes. Based on quantitative data analysis, the use of e-learning media has been proven to make a positive contribution of 21.1% to students' academic achievement in the Islamic education environment. Putri et al. (2025) highlight that the integration of the internet and websites allows for broad access to digital resources such as e-books, video lectures, and discussion forums that enrich Islamic insights beyond the boundaries of traditional classrooms.³⁶ These pedagogical implications gradually change the role of teachers from mere material presenters to facilitators and designers of learning that motivate students to engage more actively and constructively.

Nevertheless, a review of recent studies identifies significant systemic challenges in the digital ecosystem. Andriyan Veisyal and Seftiana Putra (2026) emphasize that the gap in teachers' digital competencies and limited infrastructure resources, such as unstable internet access and inadequate computer labs, remain the main obstacles.³⁷ This challenge is exacerbated by family economic factors that limit the ownership of digital devices for students at the elementary school level. If not addressed structurally through quota subsidies and equitable distribution of technology, digital transformation risks widening inequality in access to education in various regions.

³⁶ Dila Nur et al., "2025 Madani : Jurnal Ilmiah Multidisiplin Pengembangan Pembelajaran PAI Berbasis Internet Dan Website 2025 Madani : Jurnal Ilmiah Multidisiplin," *Indonesian Journal of Educational Research (IJER)* 1, no. 5 (2025): 1–11.

³⁷ Andriyan Veisyal and Seftiana Putra, "Navigating Digital Transformation : Challenges and Strategies for Islamic Religious Education Teachers in Elementary Schools," *Jurnal Iman Dan Spiritualitas* 6, no. 1 (2026): 177–90.

In addition to technical constraints, the literature highlights crucial moral and pedagogical challenges. The use of social media and online games is often the main distraction that lowers students' concentration and motivation to learn. In the context of PAI, there is a serious risk of exposure to invalid, radical, or misleading religious information if it is not accompanied by strict teacher guidance. Akbar (2025) reminds that the success of e-learning integration is highly dependent on the pedagogical readiness of educators to ensure that technology reinforces, not weakens, the internalization of character values and spirituality.³⁸ Therefore, the effectiveness of PAI in the digital era requires a balance between technological innovation and strengthening digital ethics based on Islamic values.

Solutions and Recommendations for the Development of E-Learning-Based Instructional Design.

A synthesis of academic literature shows that improving the quality of digital-based PAI learning depends on a systematic and holistic approach to development, rather than just partial adoption of technology. The main recommendation that emerged from various studies was to strengthen teachers' digital pedagogical competencies through mastery of the Technological Pedagogical Content Knowledge (TPACK) framework.³⁹ Empirical evidence from Akbar (2025) shows that e-learning contributes significantly to students' academic achievement, but this effectiveness can only be achieved if educators are able to design a student-centered learning experience that is integrated with Islamic values.⁴⁰ Therefore, optimizing the role of the PAI KKG (Teacher Working Group) as a forum for workshops and sharing good practices in the use of interactive media is an urgent practical solution to bridge the gap in teachers' digital competencies.

Furthermore, the literature analysis emphasizes the importance of transforming the Learning Management System (LMS) function from just a task administration tool to an active pedagogical management platform. Putri et al. (2025) suggest that features on platforms such as Google Classroom be used to facilitate "meaningful and constructive interactions" through discussion forums, digital reflection, and systematic evaluation. The use of tested instructional design models, such as ADDIE (Analysis, Design, Development, Implementation, Evaluation), is highly recommended to ensure consistency between learning objectives, teaching materials, and assessment instruments.⁴¹ The integration of creative digital media such as animated videos, prophetic stories and interactive quizzes must also be continuously developed to maintain students' emotional engagement and motivation in the digital space.⁴²

Finally, the study recommended strategic collaboration between schools and parents as partners in digital supervision to mitigate distractions from social media and online gaming. Veisyal and Putra (2026) dan Edi et. al. suggest the implementation of an active

³⁸ Muh Anugrah Akbar, "E-Learning and Its Influence on Learning Achievement in Islamic Religious Education," *Journal of Contemporary Islamic Education Research (JCIER)* 1, no. 2 (2025): 35–45.

³⁹ Dimah Al-Fraihat et al., "Evaluating E-Learning Systems Success: An Empirical Study," *Computers in Human Behavior* 102, no. June 2019 (2020): 67–86, <https://doi.org/10.1016/j.chb.2019.08.004>.

⁴⁰ Akbar, "E-Learning and Its Influence on Learning Achievement in Islamic Religious Education."

⁴¹ Purniadi Putra, Arnadi Arnadi, and Hadisa Putri, "Strengthening Student 's Character through Religious Moderation Education in the Digitalization Era," *Indonesian Journal of Islamic Education Studies* 7, no. June (2024).

⁴² R. E Mayer, "Multimedia Learning. In Psychology of Learning and Motivation," *Academic Press* 41 (2002): 85–139.

mediation strategy and the preparation of an "Islamic Digital Etiquette Guide" for families.⁴³ This guide aims to ensure that the use of technology at home does not only function as a means of entertainment, but transforms into a tool to strengthen faith and knowledge through the guidance of the values of mujahadah al-nafs (self-control). By synergizing the pedagogical, technical, and character strengthening dimensions, e-learning-based instructional design will be able to produce a generation of Muslims who are not only technologically savvy, but also have deep religious literacy⁴⁴.

Conclusion

This study concludes that the effectiveness of e-learning in Islamic Religious Education (PAI) is fundamentally determined by the quality of instructional design rather than the mere use of technology. The literature synthesis demonstrates that e-learning-based instructional design, when systematically integrating learning objectives, materials, strategies, media, and assessment, can significantly enhance students' religious literacy. This enhancement is reflected in students' ability to understand, critically analyze, and apply Islamic values in real-life contexts, indicating that learning extends beyond cognitive acquisition toward meaningful internalization.

Furthermore, the study reveals that the successful implementation of e-learning requires a holistic and pedagogically grounded approach. Factors such as teacher competence, the selection of appropriate learning models (such as blended learning), interactive learning activities, and institutional support play a crucial role in shaping effective learning environments. Without proper instructional planning and guidance, the use of e-learning may remain superficial and fail to achieve its intended outcomes. Therefore, the integration of technology in PAI learning must be accompanied by strong instructional design practices that promote active, reflective, and student-centered learning.

Despite providing a strong theoretical framework, this study has limitations as it relies solely on the analysis of secondary literature available in academic databases, which may not fully capture the dynamic technical constraints and diverse classroom realities in various Islamic educational institutions. Therefore, future research should transition toward empirical and field-based studies to validate the effectiveness of the synthesized instructional models, such as the application of the ADDIE framework or TPACK-based designs in specific PAI subjects. Additionally, longitudinal research is recommended to explore the long-term impact of e-learning on students' moral internalization and character development (the affective domain) to ensure that digital transformation leads to genuine behavioral transformation aligned with Islamic values.

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⁴³ Veisyal and Putra, "Navigating Digital Transformation : Challenges and Strategies for Islamic Religious Education Teachers in Elementary Schools"; Edi et al., "Improving Religious Literacy Through E- Learning In The Era Of Technological Disruptions."

⁴⁴ Febi Robianti, "Instructional Design for Meaningful Learning through Experience- Anchored Reflective Inquiry (EAR-I)," no. 2 (2025): 1–11; Sarah J. DeLozier and Matthew G. Rhodes, "Flipped Classrooms: A Review of Key Ideas and Recommendations for Practice," *Educational Psychology Review*, 2017, <https://doi.org/10.1007/s10648-015-9356-9>.

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