



Volume 1 Issue 1 Pages 54 - 68

Journal of Religious and Social Studies

Web : <https://ejournal2.uinsaid.ac.id/index.php/rils/index>

Theoretical Study of Renewal of Islamic Education Learning Methodology Oriented to Character and Technology

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ABSTRACT

Article Info

Article history:

Received: March 17, 2026

Revised: April 10, 2026

Accepted: Mei 10, 2026

Keywords:

Methodology Renewal, Islamic Education, Character Education, Digital Technology, TPACK

This study theoretically investigates the renewal of Islamic Religious Education (PAI) learning methodology oriented toward character strengthening and digital technology utilization. Using a qualitative approach grounded in library research, the study synthesizes recent literature (2015–2026) on the role of teachers, integration of Islamic values, character education frameworks, and technology-based learning within Islamic educational contexts. The findings reveal that teachers hold a strategic, multidimensional role—not merely as transmitters of knowledge, but also as spiritual guides, moral role models, and digital facilitators. The integration of cutting-edge technologies, including artificial intelligence (AI), gamification, adaptive learning systems, mobile learning, and blended learning, has been shown to enhance student motivation, engagement, and learning outcomes. Nevertheless, successful implementation depends heavily on the digital literacy of both teachers and students (TPACK framework), infrastructure readiness, and the synergistic support of the educational ecosystem. Technology-based Islamic education must simultaneously promote intellectual achievement and the formation of Islamic character—encompassing religiosity, honesty, responsibility, discipline, tolerance, and digital ethics. This study affirms that the renewal of PAI methodology in the digital era requires strong multi-stakeholder synergy among teachers, schools, parents, communities, and government.

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RILS Journal

Published by Faculty of Ushuluddin and Dakwah, UIN Raden Mas Said Surakarta, Indonesia

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INTRODUCTION

Education is a fundamental pillar in shaping national civilization. In an increasingly competitive global context, educational institutions are expected to respond to constantly evolving challenges at the local, national, and global levels. Lickona (2019) asserts that genuine education is not merely oriented toward the transfer of knowledge, but also toward the formation of a whole and dignified individual character. This is consistent with the mandate of Law No. 20 of 2003 on the National Education System, which places character development at the core of Indonesia's educational objectives.

Advances in information and communication technology (ICT) have brought significant and unstoppable change to all aspects of life, including the world of education. According to Selwyn (2017), digital technology has restructured the way humans access information, communicate, and learn. The implications for education are wide-ranging: conventional teacher-centered learning models that rely on printed materials are no longer adequate to meet the learning needs of a digital generation growing up amid an endless flow of information.

Islamic Religious Education (*PAI*) as an integral component of the national education system faces a dual challenge: on the one hand, it must preserve the depth of Islamic spiritual values and morality; on the other, it is compelled to adapt to an era increasingly dominated by digital technology. As argued by Azra (2017), the modernization of Islamic education does not mean abandoning traditional roots, but rather responding to the contemporary context while remaining grounded in the values of the Qur'an and Hadith.

Zakiyah Darajat, as cited in Agustina et al. (2020), explains that *PAI* is a systematic endeavor to guide students to comprehensively understand Islamic teachings, internalize their meaning, and apply Islamic values as a guide for life. In the digital era, this understanding needs to be expanded – *PAI* must not only build moral character in real life, but also guide ethical behavior in the digital space.

A body of recent research demonstrates that innovations in *PAI* learning methodology that integrate digital technology can significantly enhance learning

effectiveness. Crompton & Burke (2018) found that mobile learning increases students' access to and flexibility in learning. Akçayır & Akçayır (2018) showed that the flipped classroom promotes critical thinking and collaboration. Meanwhile, Dicheva et al. (2015) demonstrated that gamification is capable of substantially increasing students' intrinsic motivation.

Nevertheless, Zawacki-Richter et al. (2019) caution that the adoption of technology in education does not always translate directly into improved learning quality. Teacher readiness—as measured by the Technological Pedagogical Content Knowledge (TPACK) framework developed by Mishra & Koehler (2020)—is the primary determining factor in the successful integration of technology into *PAI* learning.

Against this background, this study aims to: (1) examine the urgency of renewing *PAI* learning methodology in the digital era; (2) analyze various technological approaches and models relevant to *PAI* instruction; (3) identify Islamic character values that need to be strengthened through the integration of technology; and (4) identify challenges and implementable solutions for technology-based renewal of *PAI* methodology.

METHOD

This study employs a qualitative approach using a descriptive-analytical library research method. This method was chosen because of its relevance for examining, synthesizing, and analyzing theoretical concepts found in various academic sources related to the research topic (Creswell & Poth, 2018).

The data sources consist of primary and secondary literature encompassing: (1) scientific journal articles indexed in Scopus, Web of Science, and DOAJ; (2) academic textbooks in the fields of Islamic education, educational technology, and character education; (3) research reports from international institutions such as UNESCO and OECD; and (4) national education policy documents. All sources are limited to the 2015–2026 period to ensure the relevance and currency of the references.

The data analysis process was conducted in three stages: (1) inventory and selection of literature based on relevance to the theme; (2) critical reading and

categorization of findings according to key themes; and (3) integrative synthesis connecting various theoretical perspectives to construct a cohesive conceptual framework (Snyder, 2019). To ensure the validity of the study, source triangulation was applied by comparing findings from the perspectives of Islamic education, general educational science, and educational technology.

RESULT AND DISCUSSION

The Concept of Renewal in *PAI* Learning Methodology

Learning methodology can be understood as the scientific framework that encompasses the various strategies, approaches, techniques, and procedures used by educators to manage the learning process in order to optimally achieve educational objectives (Richards & Rodgers, 2017). In the context of *PAI*, learning methodology is not merely concerned with the technical aspects of content delivery; it also encompasses the philosophical and spiritual dimensions that form the foundation of Islamic education.

Al-Ghazali (in Wan Daud, 2016) affirms that the methodology of Islamic education must be rooted in a deep understanding of the human being as Allah's vicegerent (*khalifah*) on earth. Education, therefore, is not merely a cognitive process but a comprehensive transformation of the soul. This view aligns with the concept of holistic education advanced by Miller (2019), which emphasizes the integrated development of the intellectual, emotional, spiritual, and social dimensions.

The renewal of *PAI* methodology in the contemporary context must simultaneously consider three primary dimensions: (1) the epistemological dimension—how Islamic knowledge is constructed and transmitted; (2) the pedagogical dimension—how the learning process is designed to be effective, meaningful, and contextual; and (3) the technological dimension—how digital technology can be optimized as a means, rather than an end, in Islamic learning (Mishra & Koehler, 2020).

The Role of Teachers in Modern PAI Methodology

Teachers are the central actors in the successful renewal of PAI methodology. According to Azzarnuji (in Liza, 2024), a teacher in the Islamic educational tradition not only acts as a *mu'allim* (knowledge transmitter), but also as a *murabbi* (educator of the soul) who shapes character, and a *mursyid* (spiritual guide) who leads students toward moral and intellectual maturity.

In the digital context, the teacher's role undergoes significant expansion and transformation. Mishra & Koehler (2020) introduced the TPACK (Technological Pedagogical Content Knowledge) framework, which requires teachers to master three interrelated competency domains: mastery of Islamic content knowledge (CK), effective pedagogical ability (PK), and digital technology competence (TK). The integration of these three domains produces TPACK competence, enabling teachers to design PAI instruction that is both effective and relevant in the digital era.

Beyond TPACK competence, PAI teachers in the digital age are also expected to possess skills as digital curators—the ability to select, curate, and integrate digital content consistent with Islamic values. This is critical given the abundance of digital content that does not entirely carry educational or Islamic substance (Ribble, 2015). Furthermore, teachers also serve as digital role models, demonstrating proper media ethics as exemplars for their students.

Technology Models and Approaches in PAI Learning

A range of technology-based models and approaches have been empirically shown to enhance the effectiveness of PAI instruction. Table 1 below summarizes the principal approaches along with implementation examples in the PAI context and the supporting academic literature.

Table 1. Technology Models and Approaches in PAI Learning

Approach	Description	Implementation Example in PAI	Source
Blended Learning	A flexible combination of face-to-face and online instruction	In-class hadith discussion + online tafsir video at home	Graham (2019); Garrison & Vaughan (2023)
Gamification	Application of game elements to the learning process	Interactive Al-Qur'an memorization quiz with point and reward system	Dicheva et al. (2015); Toda et al. (2021)
Adaptive Learning	AI-driven system that tailors content to individual learner needs	E-learning platform that recommends fiqh material based on student proficiency	Hwang & Tsai (2016); Zawacki-Richter et al. (2019)
Flipped Classroom	Students study material independently before class; class time is used for in-depth discussion	Aqidah lecture video watched at home; classroom used for Q&A and value reflection	Bishop & Verleger (2016); Akçayır & Akçayır (2018)
Project-Based Learning (PBL)	Learning through real-world projects that integrate Islamic values	Students create digital da'wah content for social media	Han et al. (2015); Kokotsaki et al. (2016)
Mobile Learning	Using mobile devices to access learning materials anytime and anywhere	Quran Explorer, Muslim Pro apps, and Islamic study podcasts	Crompton & Burke (2018); Sung et al. (2016)

Based on Table 1, blended learning is the approach most widely adopted in modern PAI instruction. Graham (2019) defines blended learning as the deliberate combination

of face-to-face and online instruction to produce a richer learning experience. In the context of PAI, blended learning enables the study of Al-Qur'an, *fiqh*, *aqidah*, and *akhlaq* to be conducted more flexibly without sacrificing the depth of teacher-student interaction that characterizes the Islamic educational tradition.

Gamification, as demonstrated by Dicheva et al. (2015), can enhance students' intrinsic motivation through mechanisms involving points, challenges, and rewards. In PAI learning, gamification can be applied to Qur'anic memorization, mastery of tajwid rules, or understanding of Islamic civilization history. Toda et al. (2021) caution, however, that the success of gamification depends on context, design, and alignment with specific learning objectives.

AI-based adaptive learning represents the latest frontier in educational technology. Zawacki-Richter et al. (2019) identify four areas of AI application in education: profiling and prediction, automated assessment, intelligent tutoring systems, and personalized learning. In PAI, AI has the potential to tailor Islamic learning materials according to each student's level of understanding and learning style, enabling a more personalized and meaningful educational experience.

Islamic Character Education in the Digital Era

Character education is the essence of the comprehensive objectives of Islamic education. Lickona (2019) defines character education as a deliberate and proactive effort to help individuals develop core moral qualities: knowing the good (moral knowing), feeling the good (moral feeling), and doing the good (moral action). Within the Islamic framework, this triad corresponds to the concepts of knowledge (*'ilm*), faith, and practice, which form the foundation for developing a comprehensive Muslim individual (*kaffah*).

The digital era introduces new complexity into character education. On one hand, technology opens unlimited opportunities to expand Islamic knowledge and insight. On the other, UNESCO (2023) warns that exposure to unfiltered digital content—including misinformation, hate speech, pornographic material, and cyberbullying—poses a serious threat to the character formation of the younger generation. Table 2

below summarizes the Islamic character values that need to be strengthened through technology-based PAI learning.

Table 2. Islamic Character Values in Technology-Based PAI Learning

Character Value	Behavioral Indicator	Digital Implementation Strategy	Theoretical Basis
Religiosity	Consistent in worship, reflecting on Qur'anic verses, adhering to syaria	Use of prayer-reminder and digital Qur'an applications	Lickona (2019); Berkowitz (2021)
Honesty (Amanah)	Avoiding plagiarism, honest in online exams, transparency in assignments	Digital anti-plagiarism systems, honesty-based e-portfolios	Kohlberg (in Nucci, 2016); Josephson (2018)
Responsibility	Completing tasks on time, being accountable for content shared online	Learning management system (LMS) with deadlines and activity tracking	Ryan & Deci (2017); Bransford et al. (2018)
Discipline	Following online study schedules, complying with virtual classroom rules	Google Classroom, Edmodo with structured attendance and scheduling systems	Duckworth (2016); Marzano & Marzano (2020)
Digital Ethics	Not spreading hoaxes, being wise on social media, respecting others' privacy	Islamic digital literacy module integrated into PAI curriculum	Ribble (2015); UNESCO (2023); Kemendikbudristek (2022)

Tolerance	Respecting differing opinions in online discussions, avoiding hate speech	Multicultural virtual discussion forums on <i>PAI</i> platforms	Banks (2016); Grant & Sleeter (2022)
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As shown in Table 2, Islamic character education in the digital era encompasses a broad spectrum of values, ranging from the spiritual dimension (religiosity) to the social-ethical dimension (tolerance and digital ethics). Berkowitz (2021) emphasizes that effective character education requires an ecological approach involving all school components—curriculum, school culture, teacher competence, parental engagement, and community services.

The concept of digital ethics receives particular attention in the contemporary *PAI* context. Ribble (2015) identifies nine elements of digital citizenship relevant to the formation of Muslim character in the digital era. Research by Sumantri & Ekowati (2024) confirms that the application of technology in *PAI* learning can reinforce the affective and spiritual dimensions—not merely cognitive aspects—through interactive media relevant to the needs of the digital generation.

Implementation Challenges and Recommended Solutions

The renewal of technology-based *PAI* methodology does not proceed without obstacles. Various structural, pedagogical, and socio-cultural challenges must be systematically identified and anticipated. Table 3 presents a comprehensive mapping of implementation challenges along with recommended solutions grounded in recent empirical literature.

**Table 3. Implementation Challenges and Recommended Solutions for PAI
Methodology Renewal**

Challenge	Impact on PAI Learning	Recommended Solution	Source
Limited technology infrastructure	The digital divide between regions impedes equal implementation of e-learning in PAI	Government internet subsidies, digital school programs for remote areas	OECD (2022)
Low digital literacy among teachers	Teachers have not yet optimally leveraged technology for teaching Islamic values	Continuous TPACK-based digital training (Technological Pedagogical Content Knowledge)	Mishra & Koehler (2020)
Negative influence of social media	Non-Islamic content, hoaxes, and cyberbullying threaten the character formation of students	Integration of Islamic media literacy education and digital content supervision by teachers and parents	Ribble (2015); UNESCO (2023)
Insufficient parental support	The internalization of Islamic values at home is misaligned with school instruction	Islamic values-based digital parenting program involving school committees	Epstein (2019); Hoover-Dempsey et al. (2017)
Heavy curriculum burden	Minimal space for deep and reflective character learning	Cross-curriculum approach: integration of PAI values across all subjects	Lickona (2019); Arthur (2020)

As identified in Table 3, the greatest challenges in implementing *PAI* methodology renewal are multidimensional—encompassing aspects of infrastructure, human resource competence, the social ecosystem, and curriculum design. The OECD (2022) report shows that the digital divide remains a serious problem in developing countries, including Indonesia, where access to quality internet infrastructure is unequally distributed between urban and rural areas.

Low digital competence among teachers represents the most fundamental challenge. Mishra & Koehler (2020) assert that developing teacher TPACK is not an instant process; it requires systematic, contextual, and practice-based ongoing training programs. Epstein (2019) adds that parental involvement is also a critical factor frequently overlooked in the implementation of educational technology—parents need to be equipped with the understanding and skills to accompany children in digital learning at home. The synergy of all stakeholders—government, educational institutions, communities, and families—is an absolute prerequisite for the sustainable renewal of *PAI* methodology (Arthur, 2020).

CONCLUSION

Education This study theoretically examines and synthesizes various scientific perspectives on the renewal of *PAI* learning methodology oriented toward character strengthening and digital technology utilization. Based on an in-depth analysis of recent literature (2015–2026), this study arrives at several substantive conclusions.

First, the renewal of *PAI* methodology is a strategic necessity, not merely an adaptive option. The digital era demands a fundamental transformation in the way *PAI* is delivered, learned, and internalized—from conventional teacher-centered approaches toward collaborative-digital student-centered approaches, without sacrificing the depth of Islamic spiritual values.

Second, various technological models—blended learning, gamification, AI-based adaptive learning, flipped classroom, project-based learning, and mobile learning—have been empirically shown to significantly enhance the effectiveness of

PAI instruction. The selection and application of appropriate models must be based on a contextual analysis of needs, resources, and specific learning objectives.

Third, the comprehensive formation of Islamic character in the digital era – encompassing religiosity, belief, responsibility, discipline, tolerance is the primary objective that must not be displaced by a fascination with technology. Technology is a means, not an end. Value integrity must always serve as the compass guiding the use of technology in *PAI* learning.

Fourth, the successful renewal of *PAI* methodology requires: (a) continuous enhancement of teacher TPACK competence; (b) the strengthening of equitable and just technology infrastructure; (c) the development of adaptive and contextual *PAI* curricula; (d) active engagement of parents and communities; and (e) supportive, empirically grounded government policies.

This study recommends that future research be conducted in the form of empirical studies measuring the effectiveness of technology models applied in *PAI* learning across various types of Islamic educational institutions, boarding school, and general schools – with due attention to the diversity of socioeconomic and geographic conditions in Indonesia.

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