
**DIGITAL-BASED LEARNING STRATEGIES AND INNOVATIONS IN
ISLAMIC RELIGIOUS EDUCATION****Muhammad Nur Cholil**

Universitas Muhammadiyah Surabaya

nurcholil.050605@gmail.com**Fairuz Zacky Taufiq Hidayat**

Universitas Muhammadiyah Surabaya

fairuzzaky19@gmail.com**Turky**

Universitas Muhammadiyah Surabaya

turkitr1218@gmail.com**Ro'ifah***

Universitas Muhammadiyah Surabaya

roifah@um-surabaya.ac.id**Abstract**

The advancement of digital technology has brought significant changes in education, including Islamic Religious Education (PAI), requiring teachers to adapt learning methods to remain relevant for the digital generation. This study employed a library research approach, analyzing accredited national journals, proceedings, and scientific books related to strategies and innovations in digital-based PAI. The study aims to identify effective strategies and innovations to enhance students' understanding, motivation, and internalization of moral and spiritual values. Findings reveal that effective digital-based PAI strategies include strengthening Qur'an and Hadith literacy, Islamic digital literacy, values and ethics reinforcement, teacher facilitation, affective enhancement through interactive experiences, and moderation with community building. Learning innovations such as interactive multimedia, digital-based creative projects, Islamic digital literacy, and gamified assessments were found to improve conceptual understanding, 21st-century skills, learning motivation, critical thinking, and creativity. Teachers act as facilitators, guiding students to use technology ethically, including principles of tabayyun and digital etiquette. The integration of digital and face-to-face learning (blended learning) enables a balance between content mastery and character development. This study emphasizes the importance of digital-based PAI learning innovations as a creative, relevant, and sustainable model aligned with Islamic educational objectives, while supporting the development of Islamic digital literacy, motivation, and moral and spiritual character formation for the digital generation.

Keywords: Digital Innovation, Gamification, Interactive Multimedia, PAI Learning, Islamic Digital Literacy

Abstrak

Perkembangan teknologi digital telah membawa perubahan signifikan dalam pendidikan, termasuk Pendidikan Agama Islam (PAI), yang menuntut guru untuk menyesuaikan metode pembelajaran agar tetap relevan bagi generasi digital. Penelitian ini menggunakan pendekatan studi kepustakaan (library research), dengan menganalisis jurnal nasional terakreditasi, prosiding, dan buku ilmiah terkait strategi dan inovasi PAI berbasis digital. Tujuan penelitian adalah mengidentifikasi strategi dan inovasi yang efektif dalam meningkatkan pemahaman, motivasi, dan internalisasi nilai moral dan spiritual peserta didik. Hasil kajian menunjukkan bahwa strategi PAI berbasis digital yang efektif meliputi penguatan literasi Al-Qur'an, hadis, dan literasi digital Islami; penguatan nilai, akhlak, dan

peran guru sebagai fasilitator; peningkatan aspek afektif melalui pengalaman interaktif; serta moderasi dan penguatan komunitas belajar. Inovasi pembelajaran, termasuk penggunaan multimedia interaktif, proyek kreatif berbasis digital, literasi digital Islami, dan asesmen berbasis gamifikasi terbukti meningkatkan pemahaman konsep, keterampilan abad ke-21, motivasi belajar, serta kemampuan berpikir kritis dan kreatif siswa. Guru berperan sebagai fasilitator yang membimbing siswa menggunakan teknologi secara etis, termasuk prinsip *tabayyun* dan adab bermedia. Integrasi pembelajaran digital dengan tatap muka (*blended learning*) memungkinkan keseimbangan antara penguasaan materi dan pembentukan karakter. Penelitian ini menegaskan pentingnya inovasi pembelajaran PAI berbasis digital sebagai model yang kreatif, relevan, berkelanjutan, dan sesuai tujuan pendidikan Islam, sekaligus mendukung pengembangan literasi digital Islami, motivasi belajar, serta pembentukan karakter dan moral peserta didik generasi digital.

Kata Kunci: Gamifikasi, Inovasi Digital, Literasi Digital Islami, Multimedia Interaktif, Pembelajaran PAI

Introduction

The development of digital technology has brought significant changes to various aspects of life, including education. This transformation requires teachers to not only have pedagogical competence, but also adequate digital literacy in order to provide learning that is relevant to the needs of today's students. Students in the digital age are accustomed to fast information, interactive visual media, and broad access to knowledge, so traditional learning models' risk being ineffective in building motivation to learn and understanding concepts. Therefore, the wise integration of technology in the learning process is a necessity to create a learning experience that is more interesting, meaningful, and in line with the current context (JMIA, 2024).

In the context of Islamic Religious Education (PAI or *Pendidikan Agama Islam*), learning has a dual purpose, namely to improve cognitive understanding and to shape the character, morals, and spiritual intelligence of students. The emergence of digital devices and learning platforms opens opportunities for PAI teachers to develop more effective learning processes through e-learning, interactive multimedia, and technology-based creative projects, while still emphasizing the integration of Islamic values in every learning activity. Through digital content such as animated videos of the Prophet's exemplary stories or Al-Qur'an memorization applications, Islamic values can be conveyed in a way that is closer to the students' world. Thus, technology is not only a tool, but also a bridge to connect eternal religious messages with the reality of the digital era Muslim generation, so that the internalization of noble character can occur more deeply (Rohmaturrosyidah & Werdiningsih, 2020; Taufik et al., 2024).

However, not all teachers have adequate digital literacy, while digital generation students need learning methods that are interesting, interactive, and contextual (Azhar, 2024; Dewantara, 2023). In addition, the proliferation of invalid religious content on the internet requires teachers to guide students to be able to sort information using the principles of *tabayyun* and media ethics, so that Islamic digital literacy becomes an important aspect in PAI learning. Therefore, improving the digital competence of PAI teachers through continuous training is an urgent need. This effort is not only aimed at mastering the technical use of technology, but also equipping teachers with content curation skills and strategies to

effectively integrate Islamic values in the digital space, thereby creating a safe and meaningful learning environment (Intiqad, 2023; UNM, 2023).

Along with these challenges, digital-based PAI learning innovations are very important to ensure that the learning process remains relevant and effective. Innovations such as the development of interactive multimedia, digital-based creative projects, Islamic digital literacy, and gamification-based digital assessments have been proven to increase the motivation, understanding, and internalization of moral and spiritual values of students (Eduslamic, 2024; JPTAM, 2023). Interactive multimedia, for example, allows students to understand abstract concepts such as *akhlakul karimah*, *tauhid*, and hikmah *syariat* through visual experiences and worship simulations, so that previously abstract material becomes more concrete and easier to understand (IJIT, 2023). Digital-based creative projects and collaborative learning also foster 21st-century skills such as creativity, collaboration, communication, and digital literacy, while strengthening the internalization of Islamic values through cooperation and discussion in a teacher-guided digital community (Eduslamic, 2024; JPTAM, 2023).

In addition, Islamic digital literacy is an important foundation for students to be able to use technology meaningfully, sort information, assess the accuracy of religious content, and apply media ethics principles, such as *tabayyun* and etiquette in interacting in the digital world (Intiqad, 2023; UNM, 2023). Innovations in gamification-based digital assessment also strengthen the evaluation process, enabling teachers to provide instant feedback, adjust the level of difficulty of questions, and involve students in collaborative assessment that supports character building, social responsibility, and teamwork skills. Through mechanisms such as leaderboards that reward honesty or quests (missions) that assess social contributions, assessments not only measure academic achievement but also the moral development of students. Thus, the integration of Islamic principles, technology, and modern pedagogy creates a holistic PAI learning ecosystem that is relevant to the times and in line with the educational goal of shaping knowledgeable and noble individuals (Taufik et al., 2024; Rohmaturrosyidah & Werdiningsih, 2020).

Based on this background, this study aims to describe effective digital-based PAI learning strategies and innovations, including the role of teachers in guiding Islamic digital literacy, integrating moral and spiritual values, and applying digital assessment models that support multidimensional evaluation. This study is expected to provide a conceptual basis for the development of creative PAI learning that is relevant to the character of digital generation students and in line with the objectives of Islamic education.

Research Method

This study uses a library research approach, which is research conducted by collecting, reading, critiquing, and analyzing various relevant literature sources to obtain a theoretical basis and conceptual

data related to strategies and innovations in digital-based Islamic Religious Education (IRE) learning in the era of the Industrial Revolution 4.0 (Azhar, 2024; Dewantara, 2023). The data sources used include accredited national journal articles, proceedings, and scientific books related to the digitization of learning, PAI strategies, learning media innovations, and Islamic education technology. Literature on the use of digital technology and innovative media in PAI learning is the main reference, such as the use of e-learning (Rohmaturosyidah & Werdiningsih, 2020), the integration of digital media in learning (Bela et al., 2023), the implementation of blended learning (Amanda & Ashiqin, 2023; MAALIM, 2024), and the transformation of teachers and learning resources in the digital era (Intiqad, 2023). In addition, various studies related to the effectiveness of digital media (Eduslamic, 2024), character-based learning development strategies (Nasution, 2024), challenges in digitizing PAI learning (Rohmatullah, 2023), and strengthening students' digital literacy (JIIP, 2023) were also analyzed to enrich the research perspective.

Data was collected through a process of literature identification, source selection, information extraction, and thematic analysis. The selection process was carried out by selecting local journals published in the last five years that the data obtained remained relevant to current technological developments. In addition, the study also used three main studies by Rohmaturosyidah & Werdiningsih (2020), Taufik et al. (2024), and Hairil Azhar (2024) as primary sources directly related to the digitization of PAI. Furthermore, data analysis was carried out using content analysis techniques through three stages: (1) reduction of literature data; (2) presentation of data in the form of descriptive descriptions; and (3) drawing conclusions to develop a conceptual model of the integration of digital strategies and innovations in PAI learning. This study did not collect field data, so all findings and recommendations were concluded based on theoretical studies and previous research results.

Discussion

The development of digital technology in various aspects of life has driven significant changes in the world of education. This transformation requires teachers to not only have pedagogical skills, but also adequate digital literacy in order to provide learning that is relevant to the needs of today's students. At school, students are accustomed to fast visuals, digital media, and abundant access to information, so traditional learning models are often no longer able to optimally meet their learning needs (JMIA, 2024). Therefore, religious education, including Islamic Religious Education (PAI), needs to keep up with these changes in order to continue to shape students' character, morals, and spiritual intelligence in accordance with the objectives of Islamic education.

In the context of PAI, the emergence of digital devices and learning platforms opens up great opportunities for teachers to develop more effective learning processes. Various studies explain that PAI learning strategies need to be designed with consideration of the integration between technology and religious values. For example, research in the *Soko Guru Journal of Education* shows that the integration

of technology in PAI learning can increase interaction, understanding, and the meaningfulness of religious material, especially when teachers are able to combine technology with the right pedagogical approach (Soko Guru, 2023). In addition, digital learning provides space for students to access religious material anytime and anywhere, so that learning can continue even outside of formal classes.

Digital-Based PAI Learning Strategy

The strengthening of digital-based PAI learning is also evident in the use of blended learning. Several studies show that blended learning makes it easier for teachers to manage learning time and allows students to learn basic material digitally, while face-to-face activities focus on deepening Islamic values (MA'ALIM, 2024). The use of e-learning in PAI provides high flexibility while increasing student motivation to learn (Rohmaturosyidah & Werdiningsih, 2020) when teachers are able to combine technology with methods that suit the characteristics of the students.

In addition to learning strategies, digital media innovation is an important aspect in strengthening PAI in the digital era. The development of interactive media such as educational preaching videos, digital Al-Qur'an applications, animated stories of the prophets, worship simulations, and HTML5-based interactive multimedia has been proven to significantly improve students' understanding of PAI material (IJIT, 2023). The use of digital media is in line with the findings of Taufik et al. (2024), which proves that the use of digital media such as PowerPoint, Quizizz, and learning videos has a positive effect on motivation and learning outcomes. Although their research was on non-Islamic Religious Education subjects, the characteristics of the students were the same and the findings were very relevant pedagogically. There are several strategies for developing Islamic Religious Education learning as follows.

1. Strengthening Literacy in the Qur'an, Hadith, and Islamic Digital Literacy

Digital-based Islamic Education also enables the strengthening of Al-Qur'an and hadith literacy. Research from the Journal of Education & Teaching Profession explains that the use of digital Al-Qur'an applications, online tafsir, and digital hadith sources helps students understand Islamic texts more easily and quickly, especially for students who are accustomed to digital devices (UNM, 2023). The accessibility of digital religious resources enriches mastery of the material, while also developing Islamic digital literacy skills if teachers guide students appropriately.

The role of PAI teachers in guiding students to sort and evaluate information is very important, given the prevalence of invalid religious content on the internet. This is in line with research in Intiqad: Journal of Religion and Islamic Education, which shows that PAI teachers are key actors in shaping students' digital character through teaching media etiquette, the principle of *tabayyun*, and a critical attitude towards online religious information (Intiqad, 2023). With the guidance of teachers, students can understand that technology is not only a tool for entertainment, but also a meaningful and responsible means of learning Islam.

In addition, PAI teachers face the challenge of adapting learning strategies to the diverse characteristics of their students. The Dewantara Journal emphasizes that the characteristics of students in the digital age require a personalized, creative, and adaptive approach to learning (Dewantara, 2023). In the Merdeka Curriculum model, PAI teachers are encouraged to use digital media as a means of differentiating learning so that each student can learn according to their needs and interests. Research by the Tambusai Education Journal shows that the use of technology in the Merdeka Curriculum can increase the relevance and effectiveness of PAI learning in the classroom (JPTAM, 2023).

2. Strengthening Values, Morals, and the Role of Teachers as Facilitators

In addition to strategy and innovation, the effectiveness of digital media in PAI is also evident in the formation of students' values and morals. The use of digital media in Islamic education not only strengthens cognitive abilities, but also helps students appreciate spiritual and moral values through visualization and interactive experiences (Eduslamic, 2024). This finding is reinforced by Azhar (2024), which explains that PAI learning strategies must place Islamic values at the core, while technology serves as a supporting tool for character building.

Although various studies show the benefits of digital technology in PAI learning, the effectiveness of technology utilization is highly dependent on the teacher's ability to integrate pedagogical strategies with the digital media used. PAI teachers do not only act as conveyors of information, but also as facilitators, guides, and mentors so that students are able to use technology meaningfully. Thus, teacher readiness is one of the key factors for successful digital learning. Teachers who lack understanding of how digital platforms work or do not have adequate digital literacy have the potential to hinder the effectiveness of learning (JMIA, 2024). Therefore, increasing teacher capacity through digital literacy training is an urgent need.

The integration of learning strategies with technology must also take into account the principles of Islamic education. PAI learning is not only aimed at improving students' cognitive understanding, but also at instilling morals, moral values, and spirituality. In many studies, it has been found that the use of technology without supervision can cause students to access content that is irrelevant or even contrary to Islamic values. Therefore, teachers must develop strategies that are not only innovative but also based on Islamic values such as honesty, responsibility, and moderation in the use of technology (Intiqad, 2023). The integration of these values forms the ethical foundation for the use of digital media in PAI classes.

The integration of technology in PAI also opens up new opportunities in the development of inquiry-based learning methods. Technology allows students to quickly access religious sources, compare interpretations from various scholars, and verify information using the principle of *tabayyun*. In this way, PAI learning is no longer centered on the teacher, but encourages students to become active researchers who seek the truth based on credible sources. The application of inquiry stages such as formulating

problems, collecting data, analyzing information, and concluding religious material can be done more easily through digital platforms (UNM, 2023). This approach is in line with the objectives of Islamic education to shape students who are critical and have noble character.

3. Improving Affective Aspects and Digital Assessment

Furthermore, the use of technology such as animated videos of the prophets' stories, worship simulations, and Islamic educational games can enhance the affective aspect of PAI learning. Guided digital visualization and experiences can evoke empathy, exemplary behavior, and a stronger sense of spirituality than traditional lecture methods alone. The digital media designed with specific values in mind can strengthen students' character and morals through an emotional approach and interactive experiences (Eduslamic, 2024).

In the context of PAI learning in secondary schools, technology also helps teachers conduct faster and more accurate assessments. Platforms such as Quizizz, Google Forms, or gamification-based evaluation applications allow teachers to directly measure students' understanding of concepts. This not only increases the efficiency of evaluation but also encourages students to actively participate because the test format becomes more interesting and less stressful. The use of digital media in evaluation can increase student motivation and learning outcomes, making it highly relevant for application in PAI (Taufik et al., 2024).

4. Moderation, Digital Literacy, and Strengthening Learning Communities

However, the use of technology in Islamic Education does not mean completely eliminating face-to-face learning. Islamic education still requires direct interaction between teachers and students as part of the process of internalizing values. Spiritual touch, moral exemplary behavior, and emotional guidance often cannot be fully replaced by technology. Therefore, the most ideal approach is a balanced integration of digital and face-to-face learning, as emphasized in the blended learning model (MA'ALIM, 2024).

Another challenge that arises is the availability of facilities and infrastructure. Not all schools have stable internet connections, adequate equipment, or strong technical support. This condition has the potential to cause a gap in the quality of digital learning between regions. Therefore, digital learning strategies in PAI must consider the aspect of equal access, including the use of simple but effective media, such as offline videos, lightweight digital books, or learning platforms that do not require a strong connection (JPTAM, 2023). Teachers need to adapt and choose media that are suitable for the conditions of their respective schools.

A more critical discussion is also needed in assessing the risks of using technology in Islamic Education. For example, the use of social media as a means of digital preaching can open up great opportunities, but it also carries the risk of exposure to invalid religious information. Religious content on digital platforms is often a mixture of scientific and unsubstantiated information. If students are not

equipped with Islamic digital literacy skills, they may accept false information. This is where the role of PAI teachers as guardians of scientific authority is very important (Intiqad, 2023). Teachers must equip students with the skills of verification, source checking, and content selection.

Strengthening Islamic digital literacy not only includes technical skills in using technology, but also covers the ethical aspects of media use. Basic principles such as *tabayyun* in receiving information, maintaining good manners in commenting, and responsibility in sharing information must be part of the digital-based PAI curriculum. The importance of teachers teaching these principles as the foundation for shaping students' wise character in the digital space (UNM research, 2023).

Furthermore, the integration of technology in PAI also has an impact on the formation of learning communities. Digital platforms enable students to collaborate in group discussions, work on religious projects together, or discuss relevant moral issues. This digital collaboration can enhance social responsibility and communication skills. With guidance from teachers, digital communities can become small da'wah forums where students remind each other to do good and avoid actions that harm themselves and others (Eduslamic, 2024).

Innovation in Digital-Based Islamic Education Development

Innovation in Islamic Religious Education (IRE) learning is crucial because it adapts learning to the characteristics of the digital generation of students. JMIA (2024) emphasizes that today's students are accustomed to fast information, interactive visual media, and broad access to knowledge. Without innovation, traditional methods risk being less appealing and ineffective in building motivation and learning outcomes. Innovation allows teachers to strategically integrate technology without compromising the substance of Islamic values, ensuring that learning continues to emphasize morality, ethics, and spirituality (Azhar, 2024). The innovation supports differentiated learning tailored to students' learning styles and interests, such as the use of interactive multimedia or gamification, which enhances engagement and understanding (Dewantara, 2023).

E-learning provides high flexibility, allowing students to learn independently, repeat material, and explore concepts at their own pace, while also increasing motivation to learn (Rohmaturosyidah & Werdiningsih, 2020). Innovation can strengthen the internalization of moral and spiritual values through contextual learning experiences, such as videos of prophets' stories and worship simulations (Eduslamic, 2024). Additionally, the role of innovation in equipping students with Islamic digital literacy (Intiqad, 2023). Innovative teachers can teach the principles of *tabayyun*, media etiquette, and information source evaluation skills, enabling students to use technology ethically. Digital project-based innovation can enhance 21st-century competencies-creativity, collaboration, and digital literacy-instilling Islamic values (JPTAM, 2023). There are some innovations for developing Islamic Religious Education learning as follows.

1. Developing Interactive Multimedia for Contextual Learning

The use of interactive multimedia is an important innovation in PAI learning in the digital age. Interactive multimedia can take the form of animated videos of prophets' stories, worship simulations, interactive illustrations, or HTML5-based materials that provide a real learning experience. This innovation allows students to understand abstract concepts such as *akhlakul karimah*, *tauhid*, and *hikmah syariat* through visual and interactive experiences. This is in line with the findings of UNJA (IJIT, 2023), which show that interactive multimedia facilitates the transfer of abstract material into more concrete terms, improves understanding, and encourages students to learn actively.

In addition to improving cognitive understanding, interactive multimedia also has a significant impact on student motivation and interest in learning. With attractive visualizations, students tend to remember the material more easily, are more interested in exploring additional information, and are more prepared to engage in class discussions. Interactive media also allows teachers to tailor learning to students' learning styles—for example, visual learners will benefit more from animations and illustrations, while kinesthetic learners can learn through worship simulations that allow for virtual hands-on practice.

Interactive multimedia innovations also support differentiated learning, which is one of the objectives of the Merdeka Curriculum, by providing learning experiences that can be tailored to the abilities, interests, and needs of students (JPTAM, 2023). For example, moral values can be presented through situational videos that show examples of good and bad behavior, so that students can analyze and formulate solutions based on Islamic values.

2. Collaborative Learning and Digital-Based Creative Projects

The latest innovation is the implementation of collaborative learning and digital-based creative projects. The *Merdeka Kurikulum* (Independent Curriculum) encourages students to actively engage in projects that foster creativity, digital skills, and an understanding of Islamic values. Teachers can utilize technology for projects such as creating religious videos, designing Islamic posters, or conducting small research projects on contemporary religious issues (JPTAM, 2023).

Digital collaboration allows students to discuss, share ideas, and complete projects as a team, thereby improving communication skills, social responsibility, and empathy. A teacher-guided digital community can become a small platform for preaching, where students remind each other to do good and avoid harmful deeds (Eduslamic, 2024). In this way, creative projects not only foster academic and digital competencies but also strengthen the internalization of moral and spiritual values.

In addition, teachers can combine digital projects with formative assessments, so that every collaborative and creative process becomes material for ongoing evaluation. This makes learning more dynamic, participatory, and meaningful both spiritually and cognitively (Azhar, 2024; Amanda & Ashiqin, 2023).

3. Islamic Digital Literacy and Strengthening Media Ethics

The next innovation is strengthening Islamic digital literacy, which is an important foundation for students to be able to use technology meaningfully. Islamic digital literacy includes technical skills in using applications and devices, as well as critical thinking skills, sorting information, and assessing the accuracy of religious content on the internet. The use of digital Al-Qur'an applications, online interpretations, and digital hadith sources makes it easier for students to understand religious texts quickly and accurately (Journal UNM, 2023).

In addition, teachers have a major role in guiding students to apply media ethics principles. Students need to be equipped with the ability to verify information, a critical attitude, and good manners when commenting while interacting in the digital world. With guidance from teachers, students learn that technology is not just entertainment, but a means of learning and responsible preaching (Intiqad, 2023). Strengthening Islamic digital literacy is also relevant to prevent the risk of spreading invalid religious content. Teachers can design learning modules that emphasize source verification, fact-checking, and critical assessment of online information. This supports the formation of students' character to be wise, independent, and ethical in utilizing technology, while also being in line with the goals of Islamic education to shape students with noble character (Intiqad, 2023; UNM, 2023).

4. Gamification-Based Digital Assessment and Evaluation

Gamification-based digital assessment is an innovation that improves the efficiency and quality of PAI learning evaluation. Platforms such as Quizizz, Google Forms, and gamification applications enable teachers to directly measure students' understanding of concepts, provide instant feedback, and track the learning progress of each student. The use of digital media in evaluation can increase student motivation and academic achievement because the test format becomes more interesting and less stressful (Taufik et al. (2024).

In addition, digital evaluation allows for personalized assessment, where teachers can adjust the level of difficulty of questions according to each student's ability. For example, students who already understand the basics of reading the Qur'an can be directed to interpretation questions, while students who are still learning the *Hijaiyah* alphabet can be given interactive letter recognition exercises. This not only increases student engagement but also provides teachers with analytical data that helps them in designing future lessons.

Digital assessment also allows for the use of competitive and collaborative elements. For example, team-based quizzes can encourage students to discuss, remind each other, and apply Islamic values in their answers. Thus, digital assessment is not only a tool for cognitive evaluation, but also a means of character building, cooperation, and media ethics (Rohmaturosyidah & Werdiningsih, 2020).

Digital assessment innovations in PAI can also be combined with technology-based collaborative learning, such as digital group projects. Students work together to create presentations, videos, or digital writing assignments, then provide each other with feedback under the guidance of a teacher. This model not only trains digital and collaboration skills, but also instills Islamic values such as reminding each other to do good, respecting others' opinions, and responsibility towards the group (Eduslamic, 2024; Bela, Hidayat, & Zainuddin, 2023). Thus, PAI assessment becomes a multidimensional learning tool, covering cognitive, affective, social, and spiritual aspects.

Overall, the application of digital assessment innovations in PAI has a significant impact on the quality of learning. Teachers not only obtain fast and accurate evaluation data, but can also build interactive, personalized, creative, and character-development-oriented learning models. Students become more motivated, active, and engaged in learning because the assessment format is more interesting and relevant to their digital world (Taufik et al., 2024; Azhar, 2024). This strategy is also in line with the Society 5.0 era, where digital education is a means of shaping a generation that is intelligent, critical, and has noble character (Eduslamic, 2024; Rohmaturosyidah & Werdiningsih, 2020).

Thus, innovations in digital assessment based on gamification, digital literacy, creative projects, and online collaboration can be used as models for modern PAI learning that is effective, relevant, and in line with Islamic values. Teachers act as facilitators, guides, and mentors, ensuring that technology is a meaningful tool, not just a means of entertainment. The implementation of these innovations also opens up opportunities for further research, effectiveness evaluation, and the development of sustainable digital-based PAI learning guidelines (Azhar, 2024; Journal UNIGA, 2023; JPTAM, 2023).

Conclusion

Based on the literature review conducted, it can be concluded that the integration of digital technology in Islamic Religious Education (PAI) learning has a strategic role in facing the challenges of educating the digital generation. Digital-based PAI learning strategies have proven to be effective when they include strengthening literacy in the Qur'an, hadith, and Islamic digital literacy; strengthening values and morals through the role of teachers as facilitators; improving students' affective aspects through interactive experiences; and moderating the use of technology and strengthening learning communities. These strategies ensure that digital learning is not only cognitive-oriented but also capable of shaping the character, morals, and spirituality of students holistically.

Innovations in PAI learning, such as the development of interactive multimedia, digital-based creative projects, Islamic digital literacy, and gamification-based assessment, have a positive impact on learning motivation, student engagement, and understanding of religious concepts. Interactive multimedia makes it easier for students to understand abstract concepts contextually, while creative projects and digital-based collaborative learning foster 21st-century skills, including creativity,

communication, collaboration, and critical thinking, while instilling Islamic values. Islamic digital literacy helps students use technology ethically, think critically about religious content, and apply the principle of *tabayyun*, while gamification-based digital assessments increase the effectiveness of evaluation, provide instant feedback, and foster a sense of responsibility and cooperation.

Furthermore, the integration of digital learning with face-to-face methods (blended learning) allows for a balance between mastery of material and internalization of moral and spiritual values. The role of teachers becomes very central as facilitators, mentors, and guides, ensuring that technology is used as a means of meaningful learning, not just entertainment. Thus, digital innovation in PAI not only responds to the demands of the Industrial Revolution 4.0 and Society 5.0 era, but also shapes students who are critical, creative, have noble character, and are able to use technology responsibly.

This conclusion emphasizes that digital-based PAI learning combined with appropriate strategies and creative innovations is a relevant, effective, sustainable learning model that is in line with the objectives of Islamic education, while also serving as the foundation for the development of Islamic digital literacy and the character of future generations.

References

- Azhar, H. (2024). *Strategi Pembelajaran PAI di Era Revolusi Industri 4.0*. Jurnal Pendidikan Islam, 12(2), 368–375.
- Rohmaturrosyidah, S., & Werdiningsih, W. (2020). *Pemanfaatan E-Learning sebagai Inovasi Media Pembelajaran PAI di Era Revolusi Industri 4.0*. BELAJEa: Jurnal Pendidikan Islam, 5(2), 107–118.
- Taufik, T., Ismail, I., Imansyah, I., & Kasmita, K. (2024). *Pemanfaatan Media Pembelajaran Berbasis Digital dalam Pembelajaran Menulis Puisi di SMP Negeri 2 Woja*. Jurnal Kependidikan, 21(1), 55–65.
- Amanda, R., & Ashiqin, A. (2023). *Implementasi Blended Learning dalam Pembelajaran PAI*. INOVED: Indonesian Journal of Education Development, 7(1), 12–22.
- Bela, A., Hidayat, Y., & Zainuddin, M. (2023). *Integrasi Media Digital dalam Pembelajaran PAI di Sekolah Alam*. Al-Fihris: Jurnal Pendidikan Islam, 11(1), 55–68.
- Dewantara, D. (2023). *Strategi Pembelajaran PAI Berdasarkan Karakteristik Peserta Didik*. Dewantara: Jurnal Pendidikan Sosial Humaniora, 9(2), 201–213.
- Eduslamic. (2024). *Efektivitas Media Digital dalam Pembelajaran PAI Era Society 5.0*. Jurnal Eduslamic, 5(1), 77–88.
- Intiqad. (2023). *Transformasi Guru dan Sumber Belajar PAI di Era Digital*. Intiqad: Jurnal Agama dan Pendidikan Islam, 10(1), 55–67.
- JPTAM. (2023). *Analisis Strategi dan Media Pembelajaran PAI Kurikulum Merdeka*. Jurnal Pendidikan Tambusai, 7(4), 530–542.

- JMIA. (2024). *Pendidikan Agama Islam di Era Digital: Literasi dan Tantangan*. Jurnal Multidisiplin Ilmu Akademik, 4(2), 122–137.
- Journal UNIGA. (2023). *Strategi Guru PAI Memanfaatkan Teknologi dan Media Pembelajaran Digital*. Jurnal Pendidikan Agama Islam, 14(2), 119–130.
- Journal UNM. (2023). *Strategi Literasi Al-Qur'an untuk Generasi Digital*. Jurnal Pendidikan & Profesi Keguruan, 5(1), 66–75.
- JIIP. (2023). *Diferensiasi Pembelajaran PAI untuk Penguatan Literasi Digital Peserta Didik*. Jurnal Ilmiah Ilmu Pendidikan, 5(3), 2401–2410.
- MA'ALIM. (2024). *Implementasi Blended Learning dalam Pembelajaran PAI di Era Digital*. MA'ALIM: Jurnal Pendidikan Islam, 13(1), 15–28.
- Nasution, H. (2024). *Strategi Pengembangan Pembelajaran PAI Berbasis Karakter di Era Digital*. Baitul Hikmah: Jurnal Pendidikan Islam, 11(1), 88–102.
- Pedagogik. (2023). *Peran Media Strategis dalam Pembelajaran PAI Digital*. Pedagogik: Jurnal Pendidikan dan Riset, 7(1), 44–53.
- Rohmatullah, R. (2023). *Tantangan Digitalisasi dalam Pembelajaran Agama Islam*. Jurnal Pendidikan dan Dakwah, 5(1), 33–47.
- Soko Guru. (2023). *Strategi Integrasi Pendidikan Agama Islam dan Teknologi Digital*. Soko Guru Jurnal Ilmu Pendidikan, 4(2), 112–125.
- STIT Madani. (2023). *Adaptasi Pembelajaran PAI melalui Teknologi Digital di SMK*. At-Turots: Jurnal Pendidikan Islam, 8(1), 55–67.
- UNJA (IJIT). (2023). *Pengembangan Multimedia Digital Interaktif untuk Pembelajaran PAI*. International Journal of Instructional Technology, 5(2), 100–114.