



Digital-Based Islamic Religious Education Learning Media: Analysis of Implementation, Challenges and Opportunities in Junior High Schools

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ABSTRACTS

This study analyzes the implementation, challenges, and opportunities of using digital-based learning media in Islamic Religious Education (PAI) in Junior High Schools (SMP) in Bandung. Using a qualitative approach, data were collected through in-depth interviews with 17 PAI teachers from 17 SMPs. The results showed that although conventional learning media such as textbooks and whiteboards are still dominant, there has been a significant increase in digital media such as PowerPoint, videos, and interactive applications such as Quizizz and Wordwall. Internal challenges teachers face include limited technological knowledge, resistance to change, time constraints, and dependence on traditional teaching methods. External challenges include more technological infrastructure, internet network problems, and limited resources. Nevertheless, integrating digital media offers excellent opportunities to improve the quality of learning, develop 21st-century skills, and prepare students for the digital era. This study recommends comprehensive strategies such as teacher training and professional development, institutional support in providing technological infrastructure, and collaboration between teachers, schools, government, and other stakeholders.

ABSTRAK

Penelitian ini menganalisis implementasi, tantangan, dan peluang penggunaan media pembelajaran berbasis digital dalam Pendidikan Agama Islam (PAI) di Sekolah Menengah Pertama (SMP) di Bandung. Menggunakan pendekatan kualitatif, data dikumpulkan melalui wawancara mendalam dengan 17 guru PAI dari 17 SMP yang berbeda. Hasil penelitian menunjukkan bahwa meskipun media pembelajaran konvensional seperti buku paket dan papan tulis masih dominan, terdapat peningkatan signifikan dalam penggunaan media digital seperti PowerPoint, video, dan aplikasi interaktif seperti Quizizz dan Wordwall. Tantangan internal yang dihadapi guru meliputi keterbatasan pengetahuan teknologi, resistensi terhadap perubahan, keterbatasan waktu, dan ketergantungan pada metode pengajaran tradisional. Tantangan eksternal mencakup kurangnya infrastruktur teknologi, masalah jaringan internet, dan keterbatasan sumber daya. Meskipun demikian, integrasi media digital menawarkan peluang besar untuk meningkatkan kualitas pembelajaran, mengembangkan keterampilan abad ke-21, dan mempersiapkan siswa menghadapi era digital. Studi ini merekomendasikan strategi komprehensif seperti pelatihan dan pengembangan profesional bagi guru, dukungan institusional dalam penyediaan infrastruktur teknologi, serta kolaborasi antara guru, sekolah, pemerintah, dan pemangku kepentingan lainnya.

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1. INTRODUCTION

The digital era has transformed Islamic Religious Education (PAI) in junior high schools, making integrating digital learning media an urgent need. This media is exciting and interactive, according to the preferences of the current technological generation. The revolution in learning media in PAI is increasingly inclusive and relevant to students' digital experiences (Huda, Arif, Rahim, & Anshari, 2024). Digitalization is essential to maintain the relevance of religious subjects (Mansir, 2022). Digital media expands the reach and deepens the exploration of PAI materials, enriching students' understanding of Islam (Zaid, Fedtke, Shin, El Kadoussi, & Ibahrine, 2022). Technology can improve the quality of learning and prepare students for future technological advances, demanding innovation and adaptation from educators (Munjiat, Rifa'i, Sumarna, & Rosidin, 2023). Using digital tools encourages an interactive learning environment, supporting the development of cognitive, affective, and psychomotor domains in character education (Taja, Nurdin, Kosasih, Suresman, & Supriyadi, 2021). Teachers' creativity and innovation in digital media are essential (Kharismatunisa, 2023). The transition to digital learning improves the quality of education and prepares students to face contemporary issues more competently, bringing them into a connected global era (Pabbajah, Jubba, Abdullah, Pabbajah, & Juhansar, 2021). Thus, digital integration in Islamic Religious Education is essential to prepare the next generation to be knowledgeable, technologically skilled, and ethical (Faqihuddin, 2024c, 2024a).

Integrating digital learning media in Islamic Religious Education (PAI) in junior high schools presents excellent potential and significant challenges. Despite technological advances, many educational institutions still need more technological resources, hampering the effective implementation of digital tools in religious teaching. Research shows that while technology has the potential to improve pedagogical methods and student engagement, lack of technical support and teacher expertise are significant barriers to its successful integration (Rusdi, Riwayatiningsih, Taufik, & Djollong, 2023). Furthermore, the reliance on technology in PAI raises concerns about the reduction of essential human interaction in religious education. Face-to-face discussions and personal guidance are essential components of teaching religious values, and there are concerns that digital tools may reduce such interactions. These concerns are supported by studies emphasizing the importance of maintaining personal connections in educational settings, particularly in disciplines requiring deep conceptual understanding and spiritual development (Adiyono, Ni'am, & Anshor, 2024; Desiana & Koderi, 2024). The COVID-19 pandemic has accelerated the need for technological adaptation in Islamic education, prompting educators to explore innovative solutions such as cloud-based learning and e-learning platforms (Faqihuddin & Subakti, 2022). These technologies have shown promise in improving the quality of education and facilitating access to learning materials (Fandir, 2024). However, the transition to digital platforms is challenging, as many educators may need more training to use these tools effectively, creating a gap between the potential benefits of technology and its application in the classroom (Tugiah & Asmendri, 2022).

Integrating digital learning media in Islamic Religious Education (PAI) in secondary schools has significantly changed the traditional teaching methods that rely more on textbooks and lectures. Various digital tools, including e-learning platforms, applications, and virtual reality, facilitate a more interactive and engaging learning environment. This change reflects a pedagogical shift from a didactic to a constructivist model, where students are more actively involved in their learning process, with educators acting as facilitators rather than just conveyors of information (Masdul, Firmansyah, Kuliawati, & Wekke, 2024). The importance of adapting PAI to the digital era is emphasized by Mansir, who points out that the digitalization of education increases the effectiveness and efficiency of the learning process, making it essential for educators to adopt this change so that religious education does not become outdated (Mansir, 2022). In addition, digital learning media such as animated videos and interactive platforms have been shown to create a more engaging and relevant learning environment, deepening the understanding of religious concepts (Kharismatunisa, 2023). The COVID-19 pandemic has accelerated the adoption of digital learning methods in Islamic Religious Education, encouraging educators to explore innovative solutions and online platforms. Studies have shown that e-learning is effective during the pandemic, enabling continuing education despite challenges (Yumnah, 2021). This transition has also encouraged educators to innovate and develop new teaching strategies that utilize digital tools, increasing student participation and engagement (Mundir & Umiarso, 2022). The focus for teachers is to prepare themselves for a digital-based learning environment, so it is essential to be directly involved and provide practical examples in teaching Islamic religious education (Ruswandi, Firdaus, & Ruswandi, 2023).

Although the literature on educational technology has proliferated, there still needs to be a significant research gap regarding the specific implementation of digital learning media in the context of Islamic Religious Education, especially at the junior high school level. Existing studies often focus more on the general aspects of technology without delving into how the technology can be adapted to meet the unique needs of religious learning (Faqihuddin, Muflih, & Syarifudin, 2024; Faqihuddin, Muflih, Syarifudin, Romadhon, & Al-Ayyubi, 2024; Ilyasa, Rahardja, Firmansyah, Faqihuddin, & Muflih, 2024). In addition, there is a lack of research on the impact of this technology integration on students' understanding and retention of religious material, as well as how this affects the development of their values and morals (Faqihuddin, Romadhon, & Muflih, 2024; Subakti, Faqihuddin, Ilyasa, & Muflih, 2024; Yarida, Anwar, & Faqihuddin, 2024). This study brings a new perspective by focusing on a comprehensive analysis of the implementation, challenges, and opportunities of digital learning media in Islamic Religious Education in junior high schools. By combining educational theory, technology, and religious studies, this study aims to outline how digital media can be effectively integrated into religious learning to meet the demands of the modern era. The novelty of this study also lies in the effort to explore and identify factors that influence the success or failure of technology integration in Islamic Religious Education, providing recommendations that can help schools adopt educational technology more effectively and sustainably.

2. METHOD

This study uses a qualitative approach to deeply understand the use of digital learning media in Islamic religious education (PAI) in junior high schools in Bandung. The qualitative approach was chosen for its strength in exploring and understanding phenomena in their natural context. It allows researchers to gain in-depth insights into teachers' perceptions, experiences, and subjective responses to integrating digital technology into their teaching. This study explores how digital learning media is adopted in the PAI curriculum, focusing on implementation, challenges, and opportunities (Creswell, 2015; Faqihuddin, 2024d; Hermawan, Nugraha, & Faqihuddin, 2024). The subjects of this study consisted of 17 Islamic Religious Education teachers spread across 17 junior high schools in Bandung. Each teacher was given a code from T01 to T17 to facilitate identification in the study without revealing their identities. The selection of subjects from various schools was intended to capture the diversity of experiences and perspectives related to using digital learning media in various educational contexts. Bandung, as the research location, was chosen because of its diversity in educational technology and digital teaching initiatives that have been implemented in many schools, providing a rich context for comparative analysis. (Markula et al., 2023; Toft, Lindberg, & Hörberg, 2021).

This study followed strict ethical research principles, with all participants providing informed consent after receiving a full explanation of the purpose and procedures of the study. Personal information and data obtained from each participant were kept confidential and used anonymously. Data were collected through in-depth interviews designed to allow teachers to share their experiences openly and in-depth. The interviews were conducted in a safe and comfortable setting for the teachers, using a semi-structured interview guide that included questions about the use of technology in teaching, the effectiveness of digital learning media, and the challenges and opportunities faced (Adeoye-Olatunde & Olenik, 2021; Dowling, Lloyd, & Suchet-Pearson, 2016). The in-depth interview method was chosen because it can obtain rich qualitative data directly from the respondents' perspectives. This method allowed the researcher to explore specific aspects of Islamic Religious Education teachers' use of digital learning media, such as the types of media used, how they were implemented in their teaching, and students' responses to the media. Additionally, in-depth interviews facilitated discussions about the challenges teachers face in implementing new learning technologies and the opportunities arising from their use, providing insights that could not be uncovered through quantitative methods (Adeoye-Olatunde & Olenik, 2021).

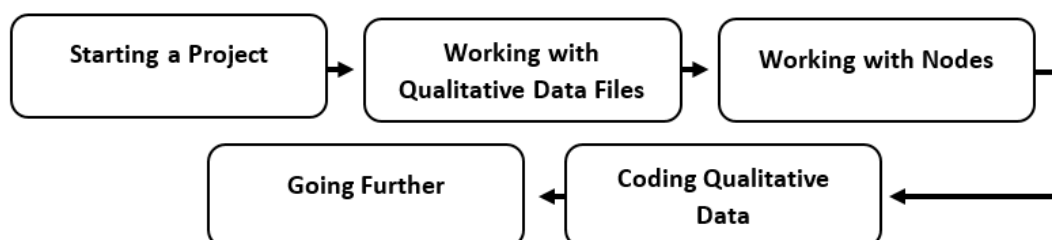


Figure 1. Workflow for Data Analysis Using NVivo Software Adapted from AlYahmady and Al Abri (2013).

The data analysis process was conducted using the Miles and Huberman model, which involves three main components: data reduction, data presentation, and conclusion drawing. Interview transcripts were simplified and categorized during the data reduction phase to identify key themes and patterns. The data were then presented in tables and diagrams to facilitate further analysis. Nvivo 12, a qualitative data analysis software, was used to assist in coding, storing, and managing the data. This software allows researchers to organize data efficiently, identify relationships between themes, and build causal networks systematically, thus supporting the validity and reliability of the research findings (AlYahmady & Al Abri, 2013; Edwards-Jones, 2014; Miles & Huberman., 1994).

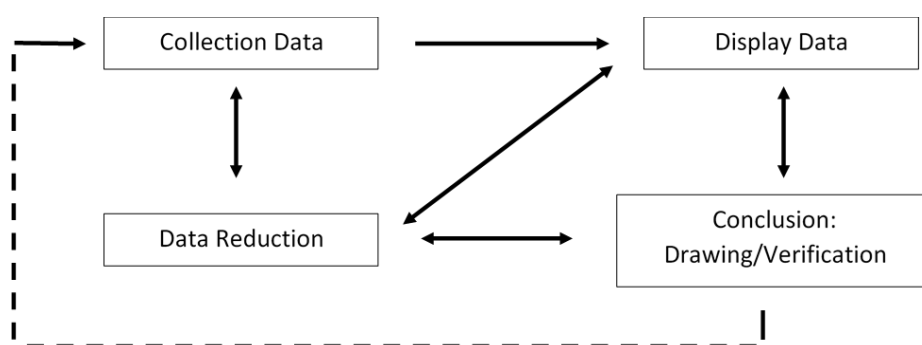


Figure 2. Data Analysis Diagram of the Miles and Huberman framework (Miles & Huberman (1994)).

3. RESULTS AND DISCUSSION

This study reveals several key findings on implementing digital-based learning media in Islamic Religious Education (PAI) in Junior High Schools (SMP) in Bandung. In terms of the use of learning media, although technology is developing rapidly, conventional learning media such as textbooks, whiteboards, and modules are still predominantly used by PAI teachers. As many as 13 out of 17 teachers still rely on textbooks as the primary source of learning. However, there has been a significant increase in the use of digital media. Most teachers have started using PowerPoint, videos, and interactive applications such as Quizizz and Wordwall in the learning process. This shows the teacher's adaptation efforts to technological developments and the needs of the digital generation. The implementation of digital media faces various challenges. Internal challenges include teachers' limited technological knowledge and skills, resistance to change, limited time to design digital materials, and reliance on traditional teaching methods. External challenges include the need for more technological infrastructure, such as the availability of hardware and stable internet access, limited resources, and electricity problems. These challenges hinder teachers from utilizing digital media optimally and impact the quality of learning.

3.1. Use of Conventional and Digital Learning Media

The results of the study show that Islamic Religious Education (PAI) teachers in Junior High Schools (SMP) in Bandung use a variety of learning media, both conventional and digital. The use of this media aims to increase the effectiveness of learning and adapt to technological developments and the characteristics of Generation Z students who are familiar with the digital world.

Table 1. Mapping the Use of Conventional and Digital Learning Media

No	Category	Code	Media Types	Code	Participant ID
1	Digital Media	DM	PowerPoint/ Slides	DM01	T02, T03, T04, T05, T06, T07, T08, T09, T10, T11, T13, T16
			Video	DM02	T03, T05, T10, T11
			Quizizz	DM03	T02, T04, T15
			Google Form	DM04	T02, T13, T17
			YouTube	DM05	T11
			Projector	DM06	T02, T03, T04, T05, T06, T07, T08, T09, T10, T11, T13, T16
			Mobile Phone	DM07	T14, T15
			Canva	DM08	T02
			Wordwall	DM09	T02, T13, T17
			Kahoot	DM10	T02
			Google Site	DM11	T02
			SmartBoard	DM12	T07
2	Conventional Media	CM	Package Book	CM01	T01, T02, T04, T05, T06, T07, T08, T09, T12, T13, T14, T15, T16
			Whiteboard	CM02	T02, T07, T15
			Module/ LKS	CM03	T05, T06

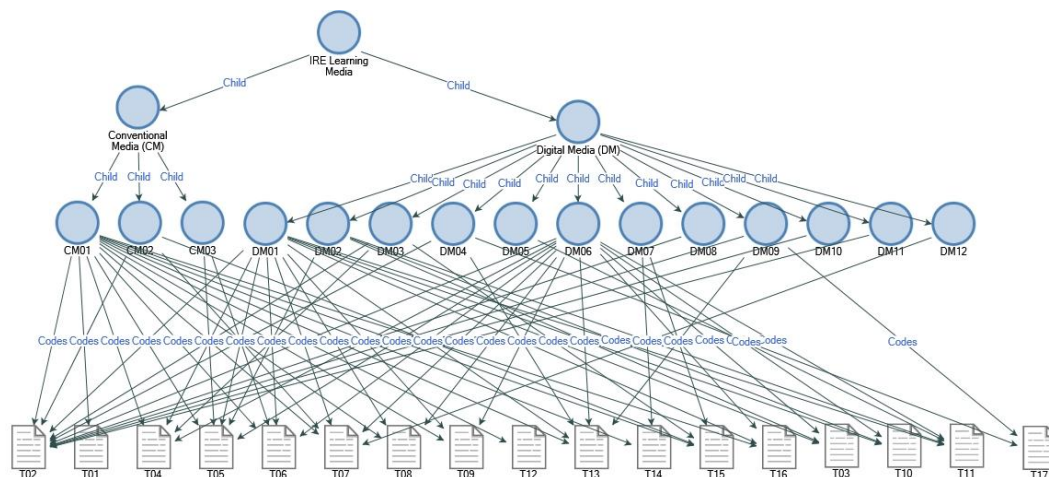


Figure 3. Project Map on NVIVO 12, which maps the Use of Conventional and Digital Learning Media

Conventional learning media still predominantly used include textbooks, whiteboards, and modules or Student Worksheets (LKS). As many as 13 out of 17 teachers (T01, T02, T04, T05, T06, T07, T08, T09, T12, T13, T14, T15, T16) still rely on textbooks as the primary source of learning materials. Whiteboards are used by three teachers (T02, T07, T15) to explain the material directly in class. Modules or LKS are also used by two teachers (T05, T06) as practice materials and material deepening. Using conventional media shows that traditional learning methods still have an essential role in the teaching and learning process. This aligns with Mansir's view that although technology is developing rapidly, conventional learning media remains relevant in helping students understand basic concepts (Mansir, 2022).

On the other hand, there was a significant increase in the use of digital learning media. Most teachers (12 out of 17 teachers) used PowerPoint or slides (T02, T03, T04, T05, T06, T07, T08, T09, T10, T11, T13, T16) as visual aids in delivering materials. Projectors are the primary support for displaying digital materials in class. Several teachers also utilize interactive digital platforms and applications. For example, four teachers used video as a learning medium (T03, T05, T10, T11). In contrast, several teachers (T02, T04, T13, T15, T17) used platforms such as Quizizz and Wordwall to create interactive quizzes that increased student engagement. Other applications such as Google Form, Kahoot, and Canva were also utilized for various learning purposes. The use of digital media reflects teachers' efforts to integrate technology into Islamic Religious Education learning based on the demands of the digital era. According to Huda et al., integrating digital media into Islamic Religious Education can increase interactivity and make learning more enjoyable for students (Huda et al., 2024).

The combination of conventional and digital media provides flexibility in teaching methods. Teachers can adjust the media used based on the material's needs and the student's characteristics. For example, abstract concepts in Islamic Religious Education can be explained visually through digital media, while in-depth discussions and instilling values can be done through direct interaction using conventional media. (Faqihuddin, 2024b). A study by Kharismatunisa emphasized the importance of teacher creativity and innovation in utilizing digital media to improve the quality of learning. Digital media facilitates the delivery of material and enables the development of 21st-century skills, such as digital literacy and critical thinking (Kharismatunisa, 2023).

3.2. Challenges of Using Digital-Based Learning Media

Digital-based learning media in Islamic Religious Education (PAI) in Junior High Schools (SMP) presents various challenges that must be overcome to achieve optimal learning effectiveness. These challenges can be categorized into two main groups: internal challenges originating from the teacher and external challenges originating from external factors that the teacher cannot directly control.

Table 2. Mapping the Challenges of Using Digital-Based Learning Media

No	Category	Code	Types of Challenges	Code	Participant ID
1	Internal Challenges (Originating from the Teacher)	IN	Limitations of Technological Knowledge	IN1	T03, T04, T07, T09, T13, T14, T15, T17
			Time Limitation	IN2	T03, T04, T13, T15
			Limitations in Updating Learning Methods	IN3	T01, T7, T12, T13
			Resistance to New Technology/Lack of Motivation	IN4	T09, T14, T17
			Ineffective or Less Innovative Use of Media	IN5	T05, T12, T14
			Reliance on Lecture Method	IN6	T12, T17
2	External Challenges (Originating from External Factors/Teachers Do Not Have Direct Control)	EX	Lack of Infrastructure	EX1	T02, T03, T04, T07, T08, T10, T11, T13, T14, T15
			Projector Availability Issues	EX2	T02, T03, T04, T07, T08, T10, T11, T13, T14, T15
			Internet Network Problems	EX3	T04, T07, T10, T15
			Resource Issues	EX4	T05, T14, T15, T16
			Electrical Problems	EX5	T06, T08, T09

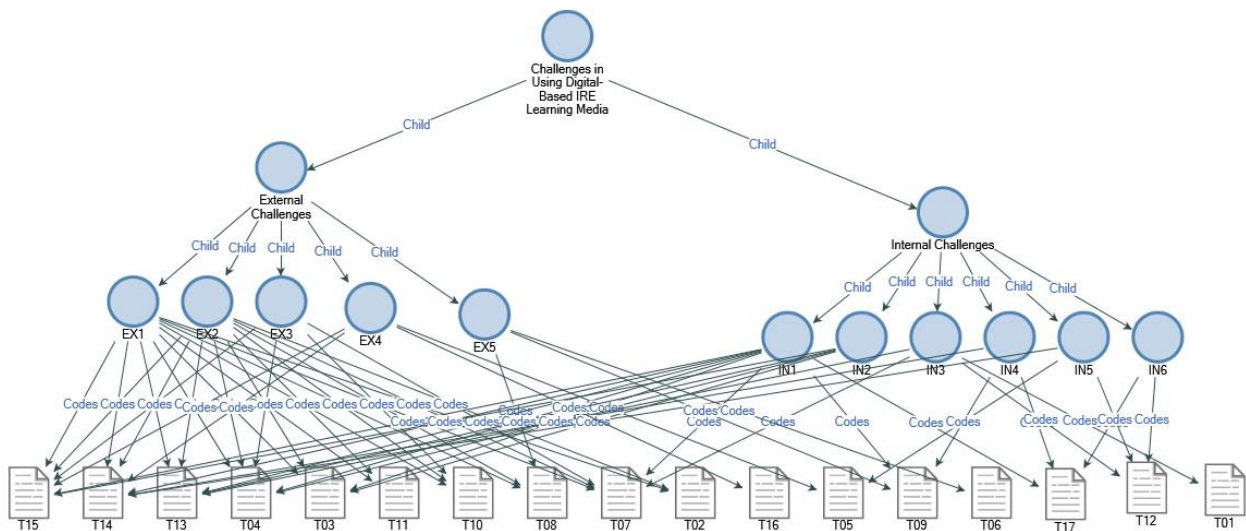


Figure 4. Project Map on NVIVO 12, which maps the Challenges of Using Digital-Based Learning Media

Internal challenges relate to factors within the teacher, including limited technological knowledge, resistance to change, time constraints, and reliance on traditional teaching methods. Eight teachers (T03, T04, T07, T09, T13, T14, T15, T17) identified limited technological knowledge as the main obstacle in integrating digital media into Islamic Religious Education learning. These limitations include the inability to operate learning software, utilize interactive applications, and adapt to e-learning platforms. They need more technological knowledge, resulting in teachers feeling less confident in using digital media, ultimately affecting the quality of learning. According to Rusdi et al., teachers' technological competence is crucial in successfully implementing technology in education (Rusdi et al., 2023). With adequate understanding, teachers will find it easier to utilize the full potential of digital media. Resistance to change and lack of motivation to adopt new technologies are significant challenges. Three teachers (T09, T14, T17) showed this attitude of resistance, which may be due to familiarity with traditional teaching methods or discomfort with technology. Adiyono et al. emphasized that teachers' attitudes and perceptions of technology greatly influence the success of its integration into learning. This resistance can hinder innovation and reduce students' opportunities to gain learning experiences relevant to the digital era (Adiyono et al., 2024).

Four teachers (T03, T04, T13, T15) mentioned time constraints as obstacles to designing and implementing digital learning media. Preparing digital materials often takes more time than conventional methods, especially for teachers who need to get used to it. According to research by Munjiat et al., high workloads and time constraints can reduce teachers' ability to innovate in learning (Munjiat et al., 2023). Therefore, effective time management and institutional support are needed to provide sufficient time for teachers to develop digital media. Several teachers (T12, T17) still rely on the lecture method to teach Islamic Religious Education. In addition, several teachers identified limitations in updating learning methods (T01, T07, T12, T13). This reliance on traditional methods can reduce student engagement and is different from the learning styles of the current generation. Kharismatunisa stated that creativity and innovation in using digital media are essential to improve the quality of learning. Teachers must adapt to technological developments and develop more interactive, student-centered teaching methods (Kharismatunisa, 2023).

External challenges include factors beyond the direct control of teachers, such as limited infrastructure, internet connection problems, and resource availability. Ten teachers (T02, T03, T04, T07, T08, T10, T11, T13, T14, T15) reported a lack of infrastructure as a major obstacle. Projectors, computers, and other supporting devices are limited, making it difficult for teachers to use digital media in the classroom. Mansir emphasized that with adequate facility support, efforts to digitize learning will be more accessible and implemented correctly (Mansir, 2022). Technological infrastructure is an essential foundation for enabling effective integration of digital media. Four teachers (T04, T07, T10, T15) faced problems with unstable or unavailable internet connections. Poor internet connections hinder access to online

resources, e-learning platforms, and interactive applications that require an internet connection. According to Pabbajah et al., adequate internet access is a prerequisite for utilizing digital technology in education (Pabbajah et al., 2021). With a stable connection, the potential of digital media can be optimized. Several teachers (T05, T14, T15, T16) identified resource limitations such as lack of necessary hardware and software. In addition, frequent electricity problems (T06, T08, T09) also became obstacles to using digital media. These limitations indicate the need for school and government support to provide the necessary resources. Investment in infrastructure and technology facilities will help overcome these challenges. These challenges directly impact the quality of Islamic Religious Education learning. Internal limitations, such as a lack of technological competence and resistance to change, can hinder innovation in teaching. Meanwhile, external challenges such as limited infrastructure and technical problems reduce teachers' ability to utilize digital media effectively. A study by Faqihuddin et al. showed that students will have difficulty implementing and are able to implement quiet support, which ultimately affects student engagement and motivation in learning (Faqihuddin, 2024a).

3.3. Opportunities for Digital-Based Learning Media

This study reveals various opportunities for integrating digital-based learning media in Islamic Religious Education (PAI) in Junior High Schools (SMP). These opportunities include improving the quality of learning, developing 21st-century skills, and forming student characters more relevant to the demands of the digital era. Digital learning media offers various interactive features that can increase student engagement and motivation in PAI learning. Using interactive applications, educational videos, and e-learning platforms allows for delivering more varied and interesting materials. Huda et al. stated that digital media can make PAI learning more dynamic so that students can more easily understand religious concepts that are sometimes abstract (Huda et al., 2024). In addition, digital media allows teachers to present materials multimodally, combining text, images, audio, and video. This is to the theory of multimedia learning, which states that learning will be more effective if information is presented through various forms of representation. Thus, digital media can improve students' understanding and retention of PAI materials (Faqihuddin, 2024c).

Integrating digital media in Islamic Religious Education learning conveys religious knowledge and helps students develop 21st-century skills, such as digital literacy, critical thinking, collaboration, and creativity. According to Kharismatunisa, using digital media in Islamic Religious Education can encourage students to be more active and independent in learning and improve their ability to use technology positively (Kharismatunisa, 2023). Interactive platforms such as Quizizz, Kahoot, and Wordwall allow students to engage in gamified learning, increasing their motivation and participation. In addition, collaboration through online platforms can train students' teamwork and communication skills, which are very important in today's globalization. Digital learning media allows broader and more flexible access to learning materials. Students can access materials anytime and anywhere so that learning is not limited to the classroom. Yumnah said that e-learning in Islamic Religious Education allows for continuity of learning even in challenging conditions (Yumnah, 2021). In

addition, digital media allows for differentiation of learning, where teachers can provide materials appropriate to each student's ability level and needs. This supports a more personalized and adaptive learning approach. Despite concerns that technology can reduce human interaction, digital media can also be used to strengthen character building and moral values. Through well-designed digital content, religious values can be conveyed in a way that is more relevant and contextual to students. Adiyono et al. emphasized that character education in the Industry 5.0 era can be achieved by utilizing technology wisely (Adiyono et al., 2024). For example, inspirational videos, interactive simulations, and digital stories can teach values such as honesty, responsibility, and tolerance (Purwanto, Firdaus, & Faqihuddin, 2024). Social media and online platforms can also be a means to develop positive learning communities and support students' spiritual development.

By integrating digital media into Islamic Religious Education learning, students learn religious knowledge and are prepared to face the challenges of the digital era. They will be better prepared to face rapid technological developments and social change. Pabbajah et al. stated that the digitalization of Islamic education helps students understand contemporary issues and contribute to an increasingly globally connected society (Pabbajah et al., 2021). For teachers, using digital media opens up opportunities to innovate teaching methods. Teachers can develop creative and interactive learning materials and adopt a more student-centered pedagogical approach. According to Masdul et al., transforming Islamic Religious Education through e-learning and interactive technology can increase teaching effectiveness and student engagement (Masdul et al., 2024). This innovation can also improve teacher professionalism and motivate them to continue learning and developing. By mastering technology, teachers can be more flexible in adapting teaching to student needs and curriculum developments. Digital media enables collaboration between teachers and students across regions and even countries. Online platforms and social media can be used to exchange information, experiences, and best practices in Islamic Religious Education learning. This opens up opportunities to broaden horizons and enrich learning materials with a more global perspective.

The study results showed that some teachers have utilized digital media such as PowerPoint, videos, and interactive applications in Islamic Religious Education learning. Although challenges still exist, teachers who have successfully integrated technology reported increased student motivation and participation. This shows that the opportunities offered by digital media are real and can be optimized. Teachers who use applications such as Quizizz, Wordwall, and Kahoot reported that students were more enthusiastic about participating in learning and understood the material more easily. This is in line with Kharismatunisa's findings on the positive impact of digital media on student engagement (Faqihuddin, Firmansyah, & Muflih, 2024; Kharismatunisa, 2023). In addition, the use of digital media allows for the provision of more prosperous and varied learning materials. Teachers can access online resources, such as videos from YouTube, articles, and e-books, which can deepen students' understanding of Islamic Religious Education material (Faqihuddin, Muflih, & Syarifudin, 2024).

4. CONCLUSION

This study reveals that integrating digital learning media in Islamic Religious Education (PAI) in Junior High Schools (SMP) has excellent potential to improve the quality and effectiveness of learning. PAI teachers in Bandung have utilized digital media such as PowerPoint, videos, and interactive applications such as Quizizz and Wordwall to make learning more exciting and match the characteristics of today's digital generation. Although conventional media such as textbooks and whiteboards are still used, combining digital media provides flexibility and improves students' understanding of PAI materials. However, the implementation of digital media faces significant challenges. Internal challenges include limited technological knowledge, resistance to change, time constraints, and dependence on traditional teaching methods. External challenges include the need for more technological infrastructure, such as the availability of projectors and a stable internet network, as well as limited resources and electricity problems. These challenges hinder teachers' optimization of digital media use and impact the quality of learning. On the other hand, the opportunities offered by digital learning media are enormous. Digital media can increase student engagement and motivation, develop 21st-century skills such as digital literacy and critical thinking, and prepare students to face the challenges of the digital era. The use of digital media also allows innovation in teaching methods, character-building, and wider access to learning materials.

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