

Teachers' Experiences in Integrating Digital Technology into Islamic Religious Education at SMA Harapan Mekar Medan

Pengalaman Guru dalam Mengintegrasikan Teknologi Digital ke dalam Pembelajaran Pendidikan Agama Islam di SMA Harapan Mekar Medan

Widya Handayani^{1*} 

¹Universitas Muhammadiyah Sumatera Utara

ARTICLE INFO

Article history:

Received, October 23, 2025

Revised, October 23, 2025

Accepted, October 23, 2025

Available online, November 8, 2025

Kata Kunci:

Guru, Integrasi, Teknologi Digital, Pendidikan Agama Islam

Keywords:

Teachers, Integration, Digital Technology, Islamic Religious Education

About Article



This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

Copyright © 2025 by Author. Published by Aksara Shofa.

ABSTRAK

Penelitian ini bertujuan mendeskripsikan pengalaman guru dalam mengintegrasikan teknologi digital pada pembelajaran Pendidikan Agama Islam (PAI) di SMA Swasta Harapan Mekar Medan. Penelitian yang berlangsung Juli–Agustus 2025 ini menggunakan metode kualitatif deskriptif dengan teknik pengumpulan data melalui observasi langsung di kelas serta kajian literatur relevan, lalu dianalisis melalui reduksi, penyajian, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa guru berperan dalam mengarahkan pemanfaatan teknologi digital agar tetap sesuai dengan tujuan pendidikan agama. Meski demikian, guru menghadapi sejumlah kendala seperti keterbatasan keterampilan digital, kurangnya infrastruktur, resistensi terhadap perubahan, dan tingginya beban administratif. Untuk mengatasinya, guru menerapkan strategi adaptif dengan memanfaatkan platform daring (Google Classroom, Google Meet), aplikasi mobile (Muslim Pro, Quran.com, Quizizz), media interaktif, serta media sosial (YouTube, Instagram) guna meningkatkan motivasi sekaligus pemahaman siswa. Keberhasilan integrasi teknologi didukung oleh dukungan sekolah, peran orang tua, dan kebijakan pemerintah terkait literasi digital, sementara hambatan utama tetap datang dari keterbatasan sarana, rendahnya literasi digital sebagian guru maupun siswa, serta potensi distraksi dari teknologi. Simpulan yang didapat yaitu integrasi teknologi digital dalam pembelajaran PAI membawa dampak positif berupa peningkatan efektivitas pembelajaran, perluasan sumber belajar, dan penguatan literasi digital siswa. Namun demikian, keberhasilan integrasi ini tetap membutuhkan keseimbangan antara pemanfaatan teknologi dan pembinaan karakter melalui peranan guru..

ABSTRACT

This study aims to describe teachers' experiences in integrating digital technology into Islamic Religious Education (IRE) learning at Harapan Mekar Private High School in Medan. Conducted from July to August 2025, this study used a descriptive qualitative method with data collection techniques through direct observation in the classroom and a review of relevant literature, which were then analyzed through reduction, presentation, and conclusion drawing. The results of the study show that teachers play a role in directing the use of digital technology so that it remains in line with the objectives of religious education. However, teachers face a number of obstacles, such as limited digital skills, lack of infrastructure, resistance to change, and high administrative burdens. To overcome these obstacles, teachers implement adaptive strategies by utilizing online platforms (Google Classroom, Google Meet), mobile applications (Muslim Pro, Quran.com, Quizizz), interactive media, and social media (YouTube, Instagram) to increase student motivation and understanding. The success of technology integration is supported by school support, the role of parents, and government policies related to digital literacy, while the main obstacles remain limited resources, low digital literacy among some teachers and students, and the potential for distraction from technology. The conclusion is that the integration of digital technology in PAI learning has a positive impact in the form of increased learning effectiveness, expansion of learning resources, and strengthening of students' digital literacy. However, the success of this integration still requires a balance between the use of technology and character building through the role of teachers.

*Corresponding author

E-mail addresses: widyahandayani338@gmail.com (Widya Handayani)*

1. INTRODUCTION

Teachers play a very important role in determining the success of the learning process, including in the integration of digital technology in schools. As facilitators, teachers are not only required to master subject matter but also to select and use technologies that suit students' needs (Wati et al., 2023). In addition, teachers also play a role in designing learning activities that combine technology with appropriate pedagogical approaches (Putra & Pratama, 2023). However, not all teachers are prepared for these demands, as some are still less familiar with the use of digital technology in the teaching and learning process (Lubis et al., 2024).

The integration of digital technology in education is not without challenges. Several obstacles often arise, such as limited training and mentoring for teachers (Hartati et al., 2022), limited access to devices and supporting infrastructure (Budiyo, 2020), and resistance to shifting from traditional to digital-based teaching methods (Hayani & Sutama, 2022). Furthermore, the heavy administrative workload often makes it difficult for teachers to explore technology deeply in the classroom (Lestari & Kurnia, 2023). At Harapan Mekar Private Senior High School Medan, teachers bear a great responsibility to ensure that the knowledge being taught is well understood by students. Teachers serve not only as instructors but also as educators, mentors, innovators, sources of information, and role models (Sulispala et al., 2025). This role becomes even more challenging when faced with the rapid development of digital technology that continues to influence various aspects of life, including education.

Islamic Religious Education (IRE) as one of the core subjects has also undergone transformation in its methods and media of teaching. The integration of digital technology into IRE holds great potential to enhance learning effectiveness, enrich learning resources, and increase student engagement. The use of interactive media such as videos, animations, and simulations can help students grasp abstract religious concepts, while mobile applications such as Quran.com, Muslim Pro, or Quizizz allow students to study independently outside of school hours. In addition, online learning platforms such as Google Classroom and Moodle enable teachers to manage materials, assignments, and evaluations in a more structured manner (Harahap, 2025). However, the success of digital technology integration greatly depends on teachers' readiness, school support, adequate infrastructure, and the presence of supportive educational policies (Khairani et al., 2025). IRE teachers at Harapan Mekar Private Senior High School Medan are therefore required not only to master pedagogical aspects but also to develop competence in technology, creativity in designing learning strategies, and leadership in building a digital culture at school.

Teachers' mastery of technology also has a positive impact on students' learning motivation. Interactive features offered by digital applications, such as quizzes and practice tests, allow students to immediately test their understanding and receive instant feedback. This accelerates the learning process while also fostering students' spiritual, social, and intellectual competencies in a balanced manner (Khairani et al., 2025). Nevertheless, the implementation of technology-based learning strategies still has its advantages and disadvantages. On the one hand, technology provides wider access to materials, increases interactivity, offers flexibility in learning time and place, and simplifies the monitoring of students' progress. On the other hand, this strategy still faces limitations, such as dependence on infrastructure and internet connectivity, low digital literacy among both teachers and students, as well as potential distractions and difficulties in managing digital classrooms (Harahap, 2025).

Based on this background, research on teachers' experiences in integrating digital technology into IRE learning at Harapan Mekar Senior High School Medan is relevant to conduct. This study is expected to reveal the roles and challenges faced by teachers, the strategies used to overcome barriers, and the factors that support or hinder the success of digital technology integration in IRE learning. The findings are not only important for teachers' professional development but also contribute to improving the quality of religious education in secondary schools.

2. METHOD

This study employs a qualitative method with a descriptive approach. This method was chosen because the researcher seeks to describe teachers' experiences in integrating digital technology into Islamic Religious Education (IRE) learning. As explained by Lexy (2007), qualitative research produces descriptive data in the form of words, behaviors, and observed phenomena, enabling researchers to understand the

meaning behind events. The study was conducted from July to August 2025 at Harapan Mekar Private Senior High School Medan. The research focus was directed toward how IRE teachers utilize various digital media—such as learning applications, online platforms, interactive media, and social media—in the teaching process. The purpose was to identify the strategies used by teachers, the challenges they face, as well as the supporting and inhibiting factors in the successful integration of digital technology.

Data were collected in two ways. First, direct classroom observations. Through these observations, the researcher closely examined the learning process, including how teachers delivered material using digital media, students' responses to the applied teaching methods, and the extent to which technology genuinely facilitated or instead created obstacles in the learning process. Second, a literature review was conducted by analyzing relevant sources, including journals, scientific articles, and books that discuss the integration of technology in religious education.

The collected data were then analyzed using the Miles and Huberman model, which consists of three stages. First, data reduction, namely selecting information relevant to the research objectives and discarding unnecessary details. Second, data display, which involves organizing data into coherent and systematic descriptions to enhance clarity. Third, conclusion drawing, in which the main findings are formulated to answer the research questions regarding strategies, challenges, and both supporting and inhibiting factors of digital technology integration in IRE learning. In this way, the research does not solely rely on theory but also illustrates field realities, so the results are expected to be more comprehensive and provide a clearer picture of the practice of digital technology integration by IRE teachers at Harapan Mekar Private Senior High School Medan.

3. RESULT AND DISCUSSION

The Role of Teachers in Digital Technology Integration

Teachers play a crucial role in the successful implementation of digital technology in Islamic Religious Education (IRE) learning. Their role is no longer limited to delivering material but also extends to being facilitators, motivators, and innovators who shape the direction of classroom learning. At Harapan Mekar Private Senior High School Medan, teachers are required to adapt IRE teaching methods to technological developments in order to meet the needs of the digital generation. Teachers' mastery of digital technology encompasses two main dimensions: technical skills in operating devices and pedagogical competence in selecting media suited to the characteristics of both the material and the students (Wati et al., 2023). Therefore, teachers function not merely as users but as managers of learning who guide the use of technology to support the attainment of religious education objectives. Furthermore, IRE teachers in this school are expected to serve as role models in the healthy and productive use of technology. This means that teachers not only deliver religious content through digital media but also instill moral values so that students can use technology responsibly. Through this approach, technology is not regarded as an end in itself but as a means to deepen religious understanding and shape students' character in accordance with Islamic values.

Challenges and Barriers Faced by Teachers

Behind the great potential of digital technology, teachers still face various obstacles in its implementation:

1. Limited digital competence – Not all teachers possess the same ability to use learning applications, online platforms, or interactive media (Lubis et al., 2024). Some still rely on conventional methods due to limited skills or lack of confidence in using technology.
2. Infrastructure issues – Unstable internet connections, unequal access to devices, and inadequate school facilities often hinder effective integration (Budiyo, 2020). This creates gaps between students who have access to technology and those who do not.
3. Resistance to change – Both teachers and students sometimes show reluctance. Some students are more accustomed to face-to-face learning and less enthusiastic about digital-based methods (Hayani & Utama, 2022). This indicates that success in technology integration depends not only on resources but also on mental readiness and learning culture.

In addition, teachers face heavy administrative workloads, leaving limited time for designing digital innovations (Lestari & Kurnia, 2023). Ethical challenges also arise, such as students potentially accessing irrelevant content or being distracted by social media during lessons.

Teachers' Strategies in Technology Integration

To address these challenges, IRE teachers at Harapan Mekar Private Senior High School Medan employ adaptive strategies. One key approach is the use of online learning platforms such as Google Classroom and Google Meet. These platforms allow teachers to distribute materials, assign tasks, and conduct evaluations in a more structured manner (Harahap, 2025). Teachers also integrate interactive media such as videos, animations, and simulations to explain abstract concepts—such as the meaning of worship and moral values—making them easier for students to grasp. Mobile applications like Muslim Pro, Quran.com, and Quizizz are also utilized to support independent learning, enabling students to practice Qur'an recitation, complete interactive quizzes, and strengthen memorization of prayers.

Social media platforms, particularly YouTube and Instagram, are leveraged to deliver religious messages in a fresh and relatable way. Short videos, interactive sermons, and motivational Islamic quotes are shared to instill values. This aligns with Khairani et al. (2025), who emphasize that technology integration can foster more dynamic, participatory, and engaging learning experiences for the digital generation. Through these strategies, teachers aim to ensure that technology serves not only as a teaching aid but also as a medium to broaden students' Islamic knowledge and connect religious values to everyday life.

Supporting and Inhibiting Factors

The success of digital technology integration in IRE learning depends not only on teachers' competence but also on external factors. School support is a key factor: management that provides technological devices, internet access, and training opportunities encourages innovation in teaching. Parental involvement also plays a role, as support at home helps students use technology effectively for learning.

Government policies on digital literacy further strengthen integration efforts, as national programs promoting educational technology encourage schools to adapt to current developments. Students' learning culture also matters—those open to digital learning adapt more easily than those accustomed to traditional methods. However, inhibiting factors remain significant. Infrastructure limitations, low digital literacy among some teachers and students, and distractions from technology all pose challenges. Moreover, certain essential aspects of religious education—such as direct spiritual guidance and teacher role-modeling—cannot be fully replaced by technology. This highlights the need for a balanced approach that combines digital innovation with personal engagement and value-based mentoring.

Impacts and Implications of Digital Technology Integration

Overall, the integration of digital technology has had a positive impact on IRE learning at Harapan Mekar Private Senior High School Medan. Technology broadens access to learning resources, enriches teaching methods, and increases student engagement. Teachers can more effectively monitor student progress through analytic features in digital platforms, making learning more focused and personalized.

The long-term implication of this integration is the development of a generation that not only understands religious values but also possesses strong digital literacy. This balance is crucial, as modern life demands both technological competence and spiritual depth. However, digital learning in IRE must still be accompanied by direct character formation. Teachers, as the primary role models, remain irreplaceable. Therefore, the success of digital learning in IRE depends on maintaining harmony between technological innovation, teacher role-modeling, school support, and parental involvement. When this balance is achieved, IRE learning can remain relevant in the digital era without losing its essential goal: the formation of faith, knowledge, and noble character..

4. CONCLUSION

Based on the findings at Harapan Mekar Private Senior High School Medan, it can be concluded that teachers' experiences in integrating digital technology into IRE learning demonstrate that teachers hold a

central role not only as transmitters of knowledge but also as facilitators, innovators, and role models for students. The use of online platforms, mobile applications, interactive media, and social media has proven effective in enhancing students' motivation and understanding, although teachers still face challenges such as limited digital competence, inadequate infrastructure, resistance to change, and heavy administrative workloads. Through adaptive strategies, teachers strive to align technology with students' characteristics, making learning more effective and relevant. The success of integration is supported by schools, parents, and government policies, while the main obstacles lie in limited resources and digital literacy. Thus, teachers' experiences show that digital technology can strengthen the effectiveness of IRE learning and students' digital literacy, provided it is balanced with character formation through teachers' role-modeling.

5. ACKNOWLEDGE

The author expresses praise and gratitude to Allah SWT for His mercy and blessings, which enabled the completion of this research. Sincere thanks are also extended to the principal and all parties who provided permission, opportunities, and valuable information that greatly supported the research process. The author is likewise grateful to family and friends for their continuous encouragement, support, and motivation. It is hoped that this article will bring benefits and serve as a positive contribution to the development of Islamic Religious Education studies.

6. REFERENCES

- Budiyono, B. (2020). Inovasi pemanfaatan teknologi sebagai media pembelajaran di era revolusi 4.0. *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan, Pengajaran Dan Pembelajaran*, 6(2), 300–309.
- Harahap, A. H. (2025). Strategi Pembelajaran Berbasis Teknologi untuk Guru Pendidikan Agama Islam di Era Digital. *Edukatif*, 3(1), 112–118.
- Hartati, S., Fernadi, M. F., & Utama, E. P. (2022). Integrasi teknologi baru dalam meningkatkan pendidikan Islam di Indonesia. *Al-Liqo: Jurnal Pendidikan Islam*, 7(2), 159–178.
- Hayani, S. N., & Utama, S. (2022). Pengembangan Perangkat dan Model Pembelajaran Berbasis TPACK Terhadap Kualitas Pembelajaran Daring. *Jurnal Basicedu*, 6(2), 2871–2882.
- Khairani, A., Rahma, R. N., & Sembiring, S. S. F. (2025). Integrasi Teknologi dalam Pembelajaran Pendidikan Agama Islam (PAI) di Era Digital. *Mesada: Journal of Innovative Research*, 2(1), 444–451.
- Lestari, D. I., & Kurnia, H. (2023). Implementasi model pembelajaran inovatif untuk meningkatkan kompetensi profesional guru di era digital. *JPG: Jurnal Pendidikan Guru*, 4(3), 205–222.
- Lexy, J. M. (2007). *Metodologi penelitian kualitatif edisi revisi*. Bandung: PT Remaja Rosdakarya.
- Lubis, M., Solehudin, R. H., & Safitri, N. D. (2024). Seberapa “pengaruh” media, fasilitas, dan minat belajar terhadap hasil belajar ekonomi siswa? *Jurnal Penelitian Tindakan Kelas*, 1(3), 180–188.
- Putra, L. D., & Pratama, S. Z. A. (2023). Pemanfaatan media dan teknologi digital dalam mengatasi masalah pembelajaran. *Journal Transformation of Mandalika*, e-ISSN: 2745-5882, p-ISSN: 2962-2956, 4(8), 323–329.
- Sulispala, N. S., Jannah, M. H., Putra, M. J. A., & Sari, M. Y. (2025). Peran Guru dalam Mengintegrasikan Teknologi pada Kurikulum Merdeka. *Jurnal Pendidikan Dasar Dan Keguruan*, 10(1), 22–31.
- Wati, R. I., Suharsiwi, S., & Sah, R. W. A. (2023). Siswa sekolah dasar menggunakan game “new family 100” untuk mengembangkan vocabulary, bagaimana kegiatan implementasinya? *Jurnal Penelitian Tindakan Kelas*, 1(2), 124–131.