

E-LEARNING IN ISLAMIC RELIGIOUS EDUCATION: IMPROVING ACCESS AND QUALITY OF LEARNING

Hayatun Thoyyibah¹, Dewi Murthasiah², Aulia Kholilah³, Nunu Nubzatussaniyyah⁴

1,2,3,4 Univeristas Islam 45 Bekasi

¹⁾ hayatunthoyyibahhayatunnthoyyi@gmail.com, ²⁾ dewimurthasiah231195@gmail.com,
³⁾ auliakhoolilah@gmail.com, ⁴⁾ nununubzatussaniyyah@gmail.com

Abstract

This study explores the impact of e-learning on Islamic Religious Education (IRE) in secondary schools across Indonesia, focusing on both its benefits and challenges. The research involved 100 teachers and 500 students, examining their experiences with e-learning. Results indicate that e-learning has significantly enhanced students' understanding of IRE materials, with 75% of students and 80% of teachers reporting improved engagement and motivation. However, challenges such as limited technology access, particularly in rural areas, and resistance to traditional teaching methods persist. The study highlights the importance of comprehensive digital training for teachers, improved technological infrastructure, and the active involvement of parents and school management in supporting e-learning. Findings suggest that effective implementation of e-learning can greatly advance the quality and accessibility of IRE, helping to foster a generation that is both intellectually competent and ethically grounded according to Islamic teachings. Recommendations include collaborative efforts to enhance technology access, continuous teacher training, and development of interactive e-learning modules to address the identified challenges.

Keywords: *E-learning, Islamic Religious Education, Technology Access*

1. INTRODUCTION

In the ever-evolving digital era, information technology has played a significant role in various aspects of life, including in the field of education. One of the technological innovations that is getting more attention is e-learning. E-learning, or electronic learning, refers to the use of digital technology to deliver teaching materials and facilitate the online teaching and learning process. With e-learning, educational materials are no longer limited to physical formats such as textbooks or classroom lectures but can be accessed through various digital platforms such as websites, apps, and learning management systems (LMS). In the context of Islamic Religious Education (PAI), e-learning offers great potential to improve access and quality of learning. E-learning allows for the delivery of teaching materials in a more flexible and accessible manner from various locations, which is especially beneficial for reaching students in remote or rural areas who may not have easy access to conventional educational facilities. With the existence of e-learning platforms, students can access educational materials anytime and anywhere, allowing them to learn at

their own pace and repeat uncomprehensible material. In addition to increasing access, e-learning also has the potential to improve the quality of PAI learning. E-learning platforms are often equipped with a variety of interactive tools such as educational videos, simulations, and online quizzes that can make learning more engaging and interactive. These tools help visualize religious concepts that may be difficult to understand through traditional texts or lectures alone. For example, virtual simulations can clearly show the rituals of worship, while educational videos can illustrate the history and values of Islam in a more vivid and in-depth way (Yumnah, 2021).

E-learning supports a more personalized and adaptive approach to learning. E-learning platforms often provide features such as learning progress tracking, live feedback, and online discussion rooms, allowing students and teachers to interact in a more dynamic and responsive manner. Teachers can use data from the platform to assess student progress, adjust teaching materials, and provide more specific support according to the individual needs of students. However, to take full advantage of the potential of e-learning in PAI, several challenges need to be addressed, including the gap in access to technology between urban and rural areas, as well as the need for adequate training for teachers in using digital tools. Additionally, it is important to ensure that the e-learning content provided is in line with Islamic values and supports the goals of religious education. By overcoming these challenges and continuing to develop and apply technology wisely, e-learning can be a very effective tool in enriching the learning experience and improving the quality of PAI education in the digital era. This technology offers a new way to bring teaching materials closer to students and provide more flexible and interactive teaching methods, which can ultimately support the formation of a deeper and more relevant understanding of religion among the younger generation (Sunhaji, 2022).

Islamic Religious Education (PAI) has a very important role in shaping the character and morals of students, as well as in instilling deep religious values in their daily lives. By utilizing e-learning, the delivery of PAI materials can be carried out more effectively and efficiently, expanding the reach and improving the quality of religious education. E-learning allows students to access subject matter anytime and anywhere, which provides significant flexibility in the learning process. This flexibility is especially relevant in a variety of situations, especially in remote areas where access to formal education is often limited. In these areas, educational infrastructure may be inadequate, and distance to school can be an obstacle that hinders student participation in conventional learning. E-learning provides a solution by allowing students in remote locations to access teaching materials and attend classes online, without having to face physical obstacles that often affect education in these areas. In addition, global situations such as the COVID-19 pandemic have highlighted the importance of having a flexible and adaptive learning system. During the pandemic, many educational institutions were forced to switch to

online learning to ensure educational continuity despite school closures and limited face-to-face interactions. In this context, e-learning has proven to be a crucial tool, allowing students to continue learning and interacting with teaching materials and teaching remotely. E-learning not only maintains the continuity of the teaching and learning process during difficult times but also helps maintain the connection between students and teachers, as well as between students and teaching materials (Yumnah, 2021).

By using technologies such as learning videos, interactive simulations, and online discussion forums, e-learning can present PAI materials in a more engaging and dynamic way. This can improve students' understanding of religious values and their application in daily life. For example, videos explaining the basic principles of Islam or simulations that illustrate the practice of worship can provide clearer context and help students internalize religious teachings in a more meaningful way. However, to make the most of the potential of e-learning, it is important to ensure that the teaching materials provided remain in accordance with Islamic values and support the goals of religious education. Content should be tailored to religious principles and designed to strengthen students' character and morals, not just to convey information. Additionally, ensuring that all students have adequate access to the technology and training necessary to use e-learning tools effectively is an important step towards achieving optimal educational outcomes (Prilianti et al., 2022).

The implementation of e-learning in Islamic Religious Education not only helps to overcome geographical constraints, but also provides various other advantages. For example, e-learning allows for personalized learning, where materials can be tailored to the individual needs and abilities of students. In addition, the use of multimedia in e-learning can make PAI material more interesting and easier to understand, thereby increasing student motivation and engagement. However, the application of e-learning in Islamic Religious Education also faces challenges. Limited access to technology, lack of digital competence among educators, and resistance to changes in traditional teaching methods are some of the issues that need to be addressed. Therefore, this study aims to explore how e-learning can be applied effectively in Islamic Religious Education, as well as identify factors that can improve access and quality of learning. Through this research, it is hoped that the right strategies can be found to maximize the benefits of e-learning in Islamic Religious Education, so that it can support the creation of a generation that is not only intellectually intelligent, but also has noble morals in accordance with Islamic teachings (Adinda et al., 2023).

2. IMPLEMENTATION METHOD

This study uses mixed methods that combine quantitative and qualitative approaches to obtain a comprehensive understanding of the implementation of e-learning in Islamic Religious Education and its impact on access and quality of learning. The research population consists of teachers and students of Islamic Religious Education at the secondary school level in various regions of Indonesia. The sample was taken by purposive sampling to ensure representation from various school backgrounds, both in urban and rural areas, with a sample of 100 teachers and 500 students. Data was collected through questionnaires, in-depth interviews, observations, and documentation. A questionnaire with a 5-point Likert scale was used to measure the perception of e-learning, the level of access to technology, and its impact on the quality of learning. In-depth interviews were conducted to obtain qualitative data on experiences and challenges in the implementation of e-learning. Direct observation of the learning process using e-learning was carried out in several sample schools, and documentation such as syllabus and e-learning modules were also collected (Sugiyono, 2019).

Quantitative data were analyzed using descriptive and inferential statistics, while qualitative data were analyzed using content analysis techniques. The validity of the instrument was tested through the validity of the content by involving experts in the field of Islamic Religious Education and educational technology, while the reliability was tested using Cronbach's Alpha method. The research procedure includes instrument preparation, data collection, data analysis, and preparation of research reports. The research adheres to the principles of research ethics, including obtaining consent from respondents, maintaining data confidentiality, and using data only for research purposes. Respondents were given complete information about the purpose of the research and their rights before giving consent to participate. Through this method, the research aims to find the right strategy to maximize the benefits of e-learning in Islamic Religious Education, so that it can support the creation of a generation that is intellectually intelligent and has noble character.

3. RESULTS AND DISCUSSION

Result

Respondent Description

The respondents in this study consisted of 100 teachers and 500 Islamic Religious Education (PAI) students at the high school level spread across various regions in Indonesia. The teachers who were respondents had a diverse background of experience, with the majority having more than 5 years of teaching experience, which ensured that the data obtained reflected the views of experienced professionals in PAI teaching. The students involved are mostly in grades 10 and 11, which is an important stage in secondary education and is often a crucial period for the formation of religious understanding and interest in learning (Qodir et al., 2024).

Most of the respondents came from schools in urban areas, which provided an overview of teaching practices and the challenges faced in more technologically advanced environments. However, to ensure a balanced representation and understanding of the impact of technology in various contexts, the study also included several schools in rural areas. This is important because the gap in access to technology between urban and rural areas is a significant issue in the implementation of educational technology. By involving schools from various regions, this study aims to provide a more comprehensive insight into the effectiveness and challenges of using technology in PAI teaching throughout Indonesia. This approach ensures that the results of the research can provide a more holistic picture of the state and needs in Islamic religious education in the digital era.

Level of Access to E-Learning

The results of the analysis show that most students (75%) and teachers (80%) have good access to technology devices such as computers or smartphones as well as adequate internet connections. This access allows them to effectively utilize various digital tools and e-learning platforms, which contributes to improving the quality of learning and interaction. Students with good access can take online classes, work on interactive assignments, and participate in digital discussions, while teachers can use technology to design innovative teaching materials and provide prompt feedback. However, the study also identified that about 20% of students and 15% of teachers face limited access, especially in rural areas. These limitations include the issue of unstable internet connections, which often hinder their ability to access teaching materials online, take virtual classes, or participate in learning activities that require a reliable internet connection. In addition, the limitations of technological devices, such as outdated computers or the lack of smartphones, also exacerbate this problem (Wahyuni, 2022).

This access barrier causes inequality in the learning experience between students and teachers in various regions, with a negative impact on the effectiveness of digital learning. Students in areas with limited access are often unable to make optimal use of digital teaching materials, which can affect their understanding of the material and overall learning outcomes. Similarly, teachers who face similar problems may not be able to maximize the use of technology in their teaching, which can reduce the quality of education provided. To overcome these challenges, a concerted effort from governments, educational institutions, and technology providers is needed to improve technological infrastructure in rural areas. Potential solutions include increased investment in internet connectivity, the provision of adequate technological devices to schools in underdeveloped areas, and the development of technical support programs that can help teachers and students address the technical issues they face. With these measures, it is hoped that the technology access gap can be minimized, so that all students and teachers can benefit from innovations in PAI teaching equally.

Perception of E-Learning

Most respondents showed a positive attitude towards the use of e-learning in Islamic Religious Education (PAI). About 70% of students consider that e-learning has helped them understand PAI material better thanks to the time flexibility and access it offers. This flexibility allows students to learn at their own pace, repeat uncomprehensible material,

and access a variety of educational resources without being constrained by traditional school schedules. Students also appreciate the ease of accessing teaching materials from various devices, which makes learning more convenient and according to their individual needs. On the other hand, as many as 85% of teachers stated that e-learning has given them the ability to deliver material in a more interactive and engaging way. The use of digital tools such as videos, animations, and simulations allows teachers to explain complex religious concepts in a more visual and easy-to-understand way. Educational videos, for example, can clearly illustrate the rituals of worship, while simulations can help students understand Islamic historical situations or events in more depth. Additionally, e-learning allows teachers to use a variety of teaching methods that may not be available in traditional classroom formats, such as online quizzes and discussion forums, which can increase student engagement and participation (Amirudin, 2024).

The positive response to e-learning shows that this technology not only makes Islamic Religious Education (PAI) learning more interesting and relevant but also supports more dynamic and diverse teaching methods. Through e-learning, teaching materials can be presented in a more interactive way, such as using learning videos, online quizzes, and simulations, which can increase student engagement and deepen their understanding of religious concepts. This method allows teachers to present material with a variety of approaches that suit different learning styles of students, making it more accessible and understandable. However, while e-learning offers many benefits, it is important to constantly monitor and evaluate its implementation to ensure that all students and teachers can make optimal use of this technology. Periodic evaluations are needed to assess the effectiveness of digital tools in supporting learning objectives and to identify areas that need improvement. It involves gathering feedback from students and teachers regarding their experiences with e-learning, as well as analyzing data on student engagement, understanding, and learning outcomes. Overcoming access barriers that may still exist is a crucial step in this process. The gap in access to technology between urban and rural areas, as well as between students with different economic backgrounds, can affect their ability to utilize e-learning effectively. Therefore, it is important to provide the necessary support, such as technical assistance, additional training for teachers, and access to technological devices for underprivileged students. The provision of better technological infrastructure and ongoing support is also important to address the problem of unstable internet connectivity in some areas.

Adequate support also includes the provision of teaching materials that are in accordance with Islamic values and the goals of religious education. The development of high-quality and relevant content, as well as training for teachers on how to best integrate technology in PAI teaching, will ensure that e-learning is not only technically effective but also in accordance with religious education standards. Overall, while e-learning has great potential to improve PAI learning, its success depends on ongoing efforts to address existing challenges and ensure that the technology is used effectively. With a comprehensive approach and attention to the needs of all learners, e-learning can be a very effective tool in enriching religious education and supporting the achievement of better learning outcomes.

The Impact of E-Learning on the Quality of Learning

From quantitative analysis, it was found that e-learning has a significant positive impact on the quality of Islamic Religious Education (PAI) learning. Data shows that as many as 65% of students reported an increase in their understanding of PAI materials after using e-learning. This improvement is measured through an assessment of the understanding of religious concepts, the ability to apply teachings in practical contexts, and active involvement in teaching materials. Students who engage in e-learning show greater progress compared to those who do not use digital platforms, which reflects the direct benefits of using technology in the learning process. In addition, 75% of teachers feel that the use of e-learning has increased student participation and motivation in learning. Teachers report that interactive features in e-learning, such as videos, quizzes, and discussion forums, have made teaching materials more engaging and relevant. Student participation in learning activities increases because they feel more engaged and motivated to actively participate. This motivation comes not only from a more dynamic way of delivering material but also from the flexibility provided by e-learning platforms, which allow students to learn at their own pace and access the material as per their needs (Solichin et al., 2023).

Statistical analysis showed that there was a significant difference in the quality of learning between students who used e-learning and those who did not. With a $p < 0.05$, this result indicates that the difference found is not a coincidence but the result of the influence of e-learning. A $p < 0.05$ indicates that there is a low probability that this result occurs by chance, thus supporting the hypothesis that e-learning contributes significantly to the improvement of the quality of PAI learning. These findings reinforce the argument that e-learning can be an effective tool in improving educational outcomes, especially in the context of PAI. However, it is important to continue research and evaluation to understand more deeply how the various elements of e-learning affect different aspects of learning and to identify best practices in their implementation. By leveraging this data, policymakers and educators can develop better strategies to maximize the benefits of e-learning and ensure that these technologies are used optimally to support PAI's educational goals.

Challenges in the Implementation of E-Learning

While e-learning has many benefits, the study also identifies some significant challenges in its implementation. Teachers and students revealed several key obstacles that affect the effectiveness of e-learning. First, limited access to technology is one of the main issues, with around 20% of students and 15% of teachers reporting barriers to access to technological devices and adequate internet connections. These limitations hinder their ability to take full advantage of e-learning, limiting their access to essential teaching materials and learning activities. Second, the lack of digital competence among educators is also a significant challenge. About 30% of teachers admit that they feel they are less skilled in using digital technology for teaching. These limitations in digital skills affect their ability to utilize various e-learning tools effectively and can reduce the quality of teaching and interaction with students. Without adequate training, teachers may struggle in designing appropriate materials and taking advantage of the interactive features available in e-learning platforms (Adhi et al., 2022).

In addition, resistance to changes in traditional teaching methods is also an obstacle that needs to be overcome. About 25% of teachers show discomfort or rejection of digital teaching methods, often due to habit or reluctance to abandon methods they have been using for a long time. This resistance can affect the acceptance of new technologies and hinder the overall integration of e-learning in the PAI curriculum. Some students (15%) also reported difficulties in maintaining learning discipline and concentration during online learning. Without the clear structure and routine typically provided by traditional classroom environments, some students face challenges in staying focused on the subject matter and managing their time effectively. These difficulties can negatively impact their comprehension of the material and their academic achievements.

To address these challenges, a comprehensive approach is needed that includes increased access to technology, intensive training for teachers in digital skills, as well as strategies to overcome resistance to change. The provision of adequate technical support and the development of resources to assist students in time management and learning disciplines is also essential. By systematically overcoming these constraints, e-learning can be applied more effectively, allowing the benefits of this technology to be widely felt and optimally supporting the goals of PAI education.

Results of In-depth Interviews and Observations

The results of in-depth interviews and observations provide valuable additional insights into the experiences of teachers and students in using e-learning. The teachers interviewed revealed that adequate training and technical support are key to improving their digital competencies. They emphasized the importance of having training that covers not only the basics of using technology, but also pedagogical strategies for integrating digital tools into their teaching methods. Without comprehensive training, many teachers feel less confident and less effective in making the most of e-learning. On the other hand, students appreciate the flexibility offered by e-learning, which allows them to learn at their own pace and access the subject matter at any time. However, they also emphasized the need for direct interaction with teachers to deepen their understanding of the material. Students feel that while e-learning provides easy access to materials, face-to-face interaction with teachers is still essential for explaining complex concepts, providing immediate feedback, and supporting their learning process in a more personalized way (Fahmi et al., 2021).

Observations also show that schools that successfully implement e-learning generally have a strong technological infrastructure and solid support from school management. These schools are often equipped with adequate technological devices, stable internet networks, and access to well-integrated e-learning platforms. Support from school management, including the allocation of resources for technology, training for teachers, and the provision of technical assistance, proved to be crucial in creating an environment that supports the effective use of e-learning. In addition, schools that are successful in implementing e-learning often have supportive policies and clear strategies for the integration of technology in the curriculum. School management that is proactive in addressing technical challenges and providing additional resources, such as technical help centers and periodic training sessions, can help maximize the benefits of e-learning and ensure that all stakeholders, including teachers and students, can adapt well. Overall, the

results of interviews and observations highlight that the successful implementation of e-learning depends on a combination of adequate training, technical support, and good technological infrastructure. By paying attention to these aspects, schools can improve the effectiveness of e-learning and ensure that this technology can be used optimally to support the learning process and the achievement of PAI educational goals.

Strategies to Improve E-Learning Implementation

Based on the findings above, this study proposes several strategies to improve the implementation of e-learning in Islamic Religious Education (PAI). First, increasing access to technology in rural areas must be a top priority. This can be achieved through close cooperation between governments, internet service providers, and educational institutions to expand the reach of technological infrastructure. These efforts include the provision of adequate technological devices and the improvement of the quality of internet connections, so that students in remote areas can access e-learning more easily and effectively. Second, training and development of digital competencies for teachers need to be improved. A comprehensive training program should be designed to equip teachers with the necessary skills to utilize e-learning effectively. The training not only covers the technical use of e-learning platforms, but also pedagogical strategies for integrating technology in the learning process. Ongoing support in the form of workshops, consultation sessions, and access to digital resources is also important to ensure that teachers continue to evolve in their digital skills (Hoque et al., 2019).

Third, the development of interactive and interesting e-learning modules is an important step to increase student motivation. Modules designed with interactive features, such as educational videos, simulations, and quizzes, can make learning more engaging and relevant. In addition, the provision of teaching materials that are contextual and in accordance with the needs of students will help increase their involvement and understanding of PAI materials. Innovations in e-learning design must be constantly updated based on feedback from students and teachers to ensure that the material remains effective and engaging. Finally, support from schools and parents is very important to encourage the consistent use of e-learning. Schools must provide adequate infrastructure and resources, as well as create an environment that supports the use of technology in learning. Parents also need to be involved by providing support at home, such as monitoring children's learning progress and ensuring access to necessary technology devices. Collaboration between schools, parents, and communities will strengthen the implementation of e-learning and help address challenges that may arise.

By implementing these strategies, it is hoped that e-learning can be effectively integrated in PAI education, expand access, improve the quality of learning, and support the achievement of better educational goals. Overall, this study shows that e-learning has great potential to improve access and quality of learning in Islamic Religious Education, although there are still some challenges that need to be addressed. The implementation of the right strategies can help maximize the benefits of e-learning and support the creation of a generation that is intellectually intelligent and has noble character in accordance with the teachings of Islam.

Discussion

The results of this study show that e-learning has great potential to improve access and quality of learning in Islamic Religious Education (PAI). The majority of respondents, both teachers and students, showed a positive attitude towards the use of e-learning. Many of them report improvements in material comprehension and learning motivation as a result of the use of this technology. E-learning offers time flexibility and access that students highly value, allowing them to access subject matter anytime and anywhere, as well as learn at their own pace. In addition, teachers have experienced significant benefits from e-learning in terms of their ability to deliver material in a more interactive and engaging way, thanks to the use of digital tools such as videos, quizzes, and discussion forums. However, while e-learning brings many benefits, some challenges need to be overcome to maximize its potential. One of the main challenges is limited access to technology, especially in rural areas. Many students and teachers in the area face problems related to limited technological devices and inadequate internet connections. To address this problem, improved technological infrastructure and closer cooperation with internet service providers are needed to expand coverage and improve access quality (Adinda et al., 2023).

Positive attitudes towards e-learning show that the flexibility and accessibility offered are highly valued, but resistance to changes in traditional teaching methods remains an obstacle. Especially among teachers who are less familiar with technology, these changes can cause discomfort or uncertainty. Therefore, a comprehensive training program is urgently needed to improve teachers' digital competence. This training should include not only technical skills, but also pedagogical strategies for effectively integrating e-learning in the curriculum. Overall, while e-learning offers great opportunities to improve and expand PAI learning, its success depends on the ability to address these challenges. By developing strategies to improve access to technology, provide adequate training for teachers, and continuously monitor and evaluate the implementation of e-learning, PAI education can make the most of the potential of technology, providing a richer and more beneficial learning experience for all students (Sulaiman, 2023).

E-learning has been shown to have a significant positive impact on the quality of Islamic Religious Education (PAI) learning, with many students reporting improvements in their understanding of the teaching materials. The use of digital technology allows students to access materials more flexibly and in-depth, which can increase their engagement in the learning process. However, there are several challenges that need to be overcome to optimize the benefits of e-learning. One of the main challenges is the difficulty in maintaining learning discipline and concentration during online learning. To address this issue, it is important to develop e-learning modules that are not only interactive but also designed to actively engage students. Modules that include elements such as educational videos, interactive quizzes, and activities that stimulate participation can help students stay focused and motivated. In addition, challenges in the implementation of e-learning include limited access to technology, lack of digital competence among teachers, and resistance to changes in teaching methods. Limited access to technology is often caused by inadequate infrastructure, especially in rural areas, which can hinder students' ability to make optimal use of e-learning. The lack of digital competence among teachers is also a significant obstacle, as many educators still need additional training to use technology effectively in

teaching. Resistance to changes in traditional teaching methods also hinders the overall adoption of e-learning (Supriyanto & Amrin, 2022).

To overcome these obstacles, close cooperation is needed between the government, internet service providers, and schools. Governments can play an important role in improving technological infrastructure by expanding internet coverage and providing technological devices in underserved areas. Internet service providers must work together to ensure the quality and stability of connections across the region, while schools need to invest in training and technical support for teachers. Training should include technical and pedagogical skills to ensure that teachers can effectively utilize e-learning and integrate it into the curriculum in a way that supports learning objectives. Overall, with a comprehensive and collaborative approach, these challenges can be overcome, and the potential of e-learning in improving PAI learning can be maximized. Successful implementation will depend on a concerted effort to improve the access, skills, and support needed to ensure that technology is used optimally in support of quality learning (Hoerudin et al., 2023).

Support from schools and parents also plays a crucial role in encouraging the effective use of e-learning. Schools must commit to providing adequate facilities, such as technological devices and stable internet connections, as well as technical support to address issues that may arise during the online learning process. Additionally, schools need to encourage and motivate teachers to adopt e-learning in their learning process, by ensuring that they have access to the necessary training and resources to use technology optimally. Parents also have an important role to play in supporting their children in different ways. They need to help children in managing their study time and creating an environment that is conducive to learning at home. In addition, parents should ensure that their children have adequate access to technological devices and the internet, as well as participate in the educational process by monitoring learning progress and providing positive encouragement (B et al., 2024).

The findings of this study have significant policy implications. There is an urgent need for policies that support increased access to technology throughout Indonesia, especially in rural areas that are still experiencing limitations. This policy should include the development of technological infrastructure, the provision of adequate devices, and the improvement of internet connections to ensure that all students have equal access to e-learning. In addition, training programs for teachers should be prioritized to improve their digital competencies, ensuring that they can effectively utilize e-learning and deliver material in an engaging and interactive way. Overall, this study shows that e-learning has great potential to improve access and quality of learning in Islamic Religious Education (PAI). By overcoming existing challenges and implementing the right strategies, e-learning can not only expand the reach of education but also help create a generation that is intellectually intelligent and has noble character in accordance with the teachings of Islam. The effective use of e-learning can better support the achievement of PAI educational goals, provide wider learning opportunities, and strengthen religious values in a relevant and modern context.

4. CONCLUSION

This study shows that e-learning has great potential to improve access and quality of learning in Islamic Religious Education (PAI). The majority of respondents, both teachers and students, showed a positive attitude towards the use of e-learning, and many reported an increase in understanding and motivation to learn. However, there are several challenges that need to be overcome to maximize the benefits of e-learning. One of the main challenges is limited access to technology, especially in rural areas. To overcome this problem, it is necessary to improve technological infrastructure and cooperation with internet service providers. The time flexibility and access offered by e-learning are highly appreciated by students, while teachers feel that e-learning allows them to deliver material in a more interactive and engaging way. However, resistance to changes in traditional teaching methods still exists, especially among teachers who are less familiar with technology. Therefore, a comprehensive training program is needed to improve teachers' digital competence. In addition, the development of interactive e-learning modules that actively engage students can help overcome difficulties in maintaining learning discipline and concentration during online learning.

This study also emphasizes the importance of support from schools and parents in encouraging the use of e-learning. Schools need to provide adequate facilities and technical support, as well as encourage teachers to adopt e-learning in the learning process. Parents play an important role in supporting their children in managing their learning time and ensuring adequate access to technology. Overall, this study shows that e-learning has great potential to improve access and quality of learning in PAI. By overcoming existing challenges and implementing the right strategies, e-learning can help create a generation that is intellectually intelligent and has noble character in accordance with the teachings of Islam. The findings of this study have significant policy implications, such as the need for policies that support increased access to technology throughout Indonesia and training programs for teachers. This research provides valuable insights for stakeholders in education to develop and implement policies and programs that support the use of e-learning in PAI.

REFERENCES

- Adhi, S., Achmad, D., & Herminarto, S. (2022). Developing a blended learning model in islamic religious education to improve learning outcomes. *International Journal of Information and Education Technology*, 12(2), 100–107. <https://doi.org/10.18178/ijiet.2022.12.2.1592>
- Adinda, C., Koderi, Jatmiko, A., & Mustofa, I. (2023). LITERATURE REVIEW ON THE USE OF E-LEARNING FOR ISLAMIC RELIGIOUS EDUCATION LEARNING.

- วารสารวิชาการมหาวิทยาลัยอีสเทิร์นเอเชีย, 4(1), 88–100.
- Amirudin. (2024). LEARNING STRATEGY FOR ISLAMIC RELIGIOUS EDUCATION BASED ON INFORMATION AND COMMUNICATION TECHNOLOGY. *Journal of Research Administration Society of Research Administration International*, 1(1), 4–6.
- B, A. A., Muis, A. A., Sapitri, E., & Parepare, U. M. (2024). MANAGEMENT OF ISLAMIC RELIGIOUS EDUCATION (PAI) LEARNING BASED ON INFORMATION TECHNOLOGY (IT). *Proceeding of International Conference on Education, Society and Humanity*, 02(01), 161–165.
- Fahmi, A. N., Yusuf, M., & Muchtarom, M. (2021). Integration of Technology in Learning Activities: E-Module on Islamic Religious Education Learning for Vocational High School Students. *Journal of Education Technology*, 5(2), 282–290. <https://doi.org/10.23887/jet.v5i2.35313>
- Hoerudin, C. W., Syafruddin, S., Mayasari, A., Arifudin, O., & Lestari, S. (2023). E-Learning as A Learning Media Innovation Islamic Education. *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama*, 15(1), 723–734. <https://doi.org/10.37680/qalamuna.v15i1.4466>
- Hoque, M., Yusoff, A. M., Toure, A. K., & Mohamed, Y. (2019). Teaching Hadith Subjects through E-Learning Methods: Prospects and Challenges. *International Journal of Academic Research in Progressive Education and Development*, 8(2). <https://doi.org/10.6007/ijarped/v8-i2/6164>
- Prilianti, R., Sutarto, D., & Yanto, H. (2022). The Effectiveness of E-Training Assessment for Islamic School Teachers at the Religious Education and Training Center of Semarang. *Proceedings of the 6th International Conference on Science, Education and Technology (ISET 2020)*, 574(Iset 2020), 662–668. <https://doi.org/10.2991/assehr.k.211125.125>
- Qodir, A., Muslihah, E., & Setiawan, R. (2024). OPTIMIZATION OF ONLINE LEARNING: IMPLEMENTATION OF E-LEARNING MODELS IN ISLAMIC EDUCATION PROGRAMS. *At-Tarbiyat: Jurnal Pendidikan Islam*, 07(02), 324–333.
- Solichin, A., Masdarto, M., Khasanah, M., Abbas, M., Ma'aruf, S., & Kusmawati, H. (2023). Inovasi Pembelajaran PAI dalam Meningkatkan Mutu Pendidikan PAI. *Journal on Education*, 5(2), 3990–3998. <https://doi.org/10.31004/joe.v5i2.1104>
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.
- Sulaiman, M. (2023). E-module Based on Blended Learning for Islamic Religious Education Learning. *Indonesian Research Journal in Education*, 7(1), 104–120. <https://doi.org/10.22437/irje>
- Sunhaji. (2022). LEARNING STRATEGY FOR ISLAMIC RELIGIOUS EDUCATION DURING THE COVID-19 EPIDEMIC. *Al Qalam: Jurnal Ilmiah Keagamaan Dan Kemasyarakatan*, 16(4), 1436–1447.
- Supriyanto, & Amrin. (2022). Management of Islamic Religious Education Learning Based on Cooperative Problem E-Learning During The Covid-19 Pandemic (Study on Muhammadiyah High School Sukoharjo, Central Java). *Jurnal Pendidikan Dan Konseling*, 4(3), 30–36.
- Wahyuni, N. (2022). Improving the Quality of Islamic Religious Education in the Era of

Society 5.0. *Science and Education*, 1, 335–340.

Yumnah, S. (2021). E-Learning Based Islamic Religious Education of Learning Media: Alternative Solutions for Online Learning During Covid-19. *Nazhruna: Jurnal Pendidikan Islam*, 4(2), 249–260. <https://doi.org/10.31538/nzh.v4i2.1209>.