

Enhancing Islamic Religious Education through IT-Based Learning: A Qualitative Study

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Received: 05.01.2025 | **Accepted:** 10.01.2025 | **Published:** 13.01.2025

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DOI: 10.5281/zenodo.14639802

Abstract

Integrating information technology (IT) in education has transformed traditional learning environments, offering new opportunities for engagement and interaction. This study focuses on developing and implementing IT-based learning media in Islamic Religious Education (PAI) to address the challenges posed by traditional teaching methods and limited technological adoption. The research's primary purpose is to explore IT's potential in enhancing student engagement and learning outcomes in PAI. Employing a qualitative research design, data was collected through in-depth interviews and observations with educators and students actively involved in IT-based PAI learning. The findings indicate that IT-based learning media significantly improves student engagement and academic performance, particularly when interactive and multimedia elements are incorporated. However, key challenges, such as inadequate digital infrastructure and limited teacher training, were also identified. The study concludes that adopting IT in religious education can modernize the curriculum and foster a more dynamic learning experience. These findings significantly impact policymakers and educators in developing targeted interventions and digital learning strategies for PAI.

Keywords: Digital Tools, IT-Based Learning, Islamic Religious Education, Student Engagement

Original Research Article

INTRODUCTION

Background

The rapid development of technology in the current era has significantly influenced various sectors, including education. Information Technology (IT) has become a fundamental tool for enhancing the educational process, improving accessibility, and ensuring better learning outcomes. The integration of IT in education has increased the efficiency of teaching methods and introduced innovative ways of delivering knowledge (Ngura & Fono, 2023). With the advent of the digital era, IT-based educational media has become increasingly critical in enabling students to acquire knowledge beyond the traditional classroom setting. In Indonesia, the importance of IT in education has been recognized as a strategic means to enhance national development by improving human resources (Isti'ana, 2024). In line with this recognition, Islamic Religious Education (PAI) has also embraced IT to modernize its curriculum and teaching methods to keep pace with technological advancements (Mazrur, 2023). The emphasis on digital tools and

platforms such as Moodle has opened new opportunities for creating a more interactive and engaging learning environment.

Theoretically, IT in education enhances learning by providing greater flexibility and accessibility to resources, leading to improved learning outcomes (Hamdan Suyuti, 2022). Furthermore, multimedia technology and communication tools allow educators to deliver content in diverse formats, catering to different learning styles. This shift towards digital learning is a response to the dynamic needs of students in the digital age. Several studies highlight the positive correlation between adopting IT-based learning methods and student motivation and engagement (Lailiyah & Mardliyah, 2021). Therefore, integrating IT into Islamic Religious Education is seen as a vital step toward preparing students for the complexities of modern life while maintaining their faith-based values. Islamic education, as an integral part of the national education system, is tasked with imparting religious knowledge and fostering students' technological literacy. This dual objective ensures that students are well-equipped

to navigate the challenges of the modern world while remaining rooted in their religious beliefs. The use of IT in PAI has been found to encourage critical thinking, collaboration, and independent learning, which are essential skills in the 21st century (Anwar et al., 2021). Therefore, developing IT-based learning media for PAI is crucial to ensure educational institutions remain relevant and effective in delivering quality education.

Despite the numerous benefits of IT-based learning, several challenges must be addressed. One of the primary challenges is ensuring that teachers possess the necessary skills and knowledge to use IT in their teaching practices effectively. As noted by Khojir et al. (2022), many educators are still in the early stages of adopting IT tools, with their primary use being limited to administrative tasks such as typing and preparing lesson plans. Consequently, professional development and training programs are needed to help teachers fully leverage the potential of IT in the classroom.

Additionally, the development of IT-based learning media requires a systematic approach that includes identifying learning needs, designing appropriate content, and evaluating its effectiveness. According to Santoso (2020), a well-designed IT-based learning program should not only focus on content delivery but also foster student interaction and engagement. This approach ensures that learning is not a passive experience but an active process where students are encouraged to explore, question, and apply their knowledge.

In conclusion, the integration of IT into Islamic Religious Education represents a significant step forward in modernizing the educational landscape. By adopting IT-based learning media, educational institutions can create more inclusive and flexible learning environments that cater to students' diverse needs. This development aligns with the broader goal of national education: to produce technologically proficient graduates who are also well-grounded in their religious values (Mundiri & Zahra, 2017).

Problem Statement

The advancement of information technology has led to numerous innovations in education, yet its adoption in Islamic Religious Education (PAI) remains relatively underdeveloped. Despite the increasing availability of IT tools and platforms, many schools struggle to integrate these technologies effectively into their PAI curriculum (Khojir et al., 2022). Traditional teaching methods, which often rely on lectures and static texts, continue to dominate, resulting in limited student engagement and participation. Consequently, there is a pressing need to develop IT-based learning media that can modernize the delivery of Islamic education and make it more appealing to students (Silalahi et al., 2023). Without addressing these

challenges, Islamic Religious Education risks becoming obsolete in an era where digital literacy is crucial.

The existing gap between the rapid development of IT and its application in PAI highlights the urgency of this research. While numerous studies have focused on IT integration in general education, few have explored its potential in religious education. This study seeks to address this gap by investigating the development and implementation of IT-based learning media tailored specifically for PAI. Doing so aims to enhance the learning experience and outcomes for students in Islamic education.

Research Objectives

The primary objective of this research is to develop effective IT-based learning media for Islamic Religious Education (PAI). Specifically, the study aims to:

- To identify the current challenges faced by educators in integrating IT into PAI.
- To design and develop IT-based learning tools and materials that cater to the specific needs of PAI students.
- To evaluate the effectiveness of the developed IT-based learning media in improving student engagement and learning outcomes.
- To provide recommendations for the implementation of IT-based learning in Islamic educational institutions.

The research seeks to bridge the gap between traditional teaching methods and modern technological advancements in PAI by achieving these objectives.

Significance of the Study

This research holds significant value for several stakeholders, including educators, students, policymakers, and educational institutions. For educators, it provides a framework for integrating IT into their teaching practices, thereby enhancing the quality of instruction and making learning more engaging for students. Adopting IT-based learning media offers students a more interactive and personalized learning experience, which can improve their understanding and retention of Islamic teachings (Pambudi & Makhrus, 2022).

From a policy perspective, this study's findings inform the development of educational policies and programs that promote IT adoption in Islamic education. The research can encourage policymakers to invest in digital infrastructure and teacher training programs by demonstrating the benefits of IT-based learning media. Furthermore, the study contributes to the broader field of educational research by providing insights into the application of IT in religious education. This area has received relatively little attention compared to other disciplines.

In practical terms, the development of IT-based learning

media can help address the limitations of traditional teaching methods, such as lack of student engagement and reliance on rote memorization. By leveraging digital tools and platforms, Islamic educational institutions can create a more dynamic and inclusive learning environment that caters to students' diverse needs. Ultimately, this research aims to contribute to the ongoing efforts to modernize Islamic education and ensure its relevance in the digital age (Assadi & Ubabuddin, 2023).

LITERATURE REVIEW

Related Work

Previous research has shown that integrating information technology (IT) into education can enhance teaching and learning processes. Hamidi (2018) discusses the development of interactive learning media for Islamic Religious Education using Adobe Flash to support the implementation of the 2013 curriculum. This study demonstrates that digital media can facilitate better student engagement and understanding. Similarly, Hayani, Yusrianti, and Dhuhri (2023) have highlighted the role of curriculum management in Islamic education, emphasizing the need for life skills-based approaches that incorporate technological tools to prepare students for future challenges. These findings underscore the increasing relevance of IT in religious education.

Another significant study by Nuswowati (2018) focuses on character-building through environmental chemistry learning based on problem-solving strategies. Although the study is centred on science education, its findings are relevant to the current research as they emphasize the importance of interactive and problem-based learning approaches. This highlights a broader trend in educational research advocating for active learning strategies supported by digital tools. Additionally, Rizal (2024) explores sustainable educational development, emphasizing the need for continuous improvement in teaching methodologies to keep pace with technological advancements.

Despite the advances in IT-based learning, there are still notable gaps in implementing technology in Islamic Religious Education. For instance, Mudarris and Rizal (2023) point out that while school leadership strategies play a crucial role in enhancing teacher and staff discipline, there is limited focus on equipping educators with the necessary technological skills. This is a critical gap that the present research seeks to address by developing IT-based learning media designed explicitly for PAI.

Gap Analysis

While several studies have explored the use of IT in general education, few have delved into its application in Islamic education. For example, Ngura and Fono (2023) have investigated the development of thematic learning

tools using local language and cultural approaches. Although this research provides valuable insights into localized educational strategies, it does not address the specific needs of Islamic Religious Education in a technologically driven era. Therefore, a key gap lies in the lack of tailored IT-based learning solutions for PAI that can bridge traditional religious teachings with modern digital tools.

Additionally, Nur and Jidan (2024) highlight the role of technology in enhancing communication in the digital era. While their research focuses on general communication skills, it indirectly supports the argument for integrating IT into Islamic education to foster better teacher-student interactions. The current study aims to fill this gap by designing a structured IT-based learning model for PAI that promotes active learning and engagement.

Moreover, while existing literature has emphasized the theoretical benefits of IT in education, there is limited empirical evidence on its practical implementation in Islamic schools. For example, Rodiya, Nugroho, and Kardipah (2022) explore innovative learning models based on ICT for PAI but do not provide a comprehensive framework for implementation. This highlights another gap the present research intends to address by offering practical guidelines and evaluation criteria for IT-based learning media.

The research conducted by Silalahi et al. (2023) on flash-card-based learning media for PAI provides a helpful starting point, but it is primarily focused on early childhood education. This leaves a gap in IT-based solutions for higher levels of Islamic education, which the current study aims to fill. This research seeks to contribute new insights and practical solutions to the field by developing digital learning tools that cater to different educational stages.

Finally, while several studies have acknowledged the potential of IT to transform education, few have examined its impact on religious education in rural or underprivileged areas. As highlighted by Santoso (2020), this is a significant gap that needs to be addressed. The current research explores how IT-based learning media can effectively deploy in diverse educational settings, broadening its applicability and impact.

RESEARCH METHODOLOGY

Research Design

This study adopts a qualitative research approach, which is well-suited for exploring the development and implementation of IT-based learning media in Islamic Religious Education (PAI). Qualitative research emphasizes understanding phenomena in their natural settings and is particularly effective for studies that generate in-depth insights (Ananda & Maemonah, 2022). The chosen design for this research is descriptive, focusing

on documenting the processes and outcomes associated with IT-based learning media. This design facilitates a detailed exploration of the subject matter and provides a comprehensive understanding of how IT can enhance Islamic education.

A descriptive approach is appropriate because it allows the researcher to investigate and report on the current state of IT-based learning in PAI without manipulating any variables. As such, the study aims to provide a clear picture of the existing challenges and opportunities in integrating IT into religious education. The research seeks to contribute to the broader discourse on digital transformation in education by employing a descriptive design.

Data Collection

The data collection process involves a combination of primary and secondary data sources. Primary data is gathered through direct observation and in-depth interviews with educators and students engaged in PAI. This method ensures that the research captures first-hand experiences and perspectives (Assadi & Ubabuddin, 2023). Secondary data is collected from relevant literature, including previous studies, academic journals, and official reports on IT-based learning.

Participants for the study are selected using purposive sampling, which involves identifying individuals with specific knowledge or experience relevant to the research topic. The primary criterion for participant selection is their active involvement in teaching or learning PAI using digital tools. This approach ensures that the data collected is both relevant and insightful.

Instruments used for data collection include interview guides and observation checklists. The interview guide is designed to elicit detailed responses from participants regarding their experiences, challenges, and perceptions of IT-based learning in PAI. On the other hand, the observation checklist is used to systematically record observations related to the use of digital tools in the

classroom.

Data Analysis

The data analysis process follows a systematic approach to ensure the validity and reliability of the findings. Qualitative data from interviews and observations is analyzed using thematic analysis, which involves identifying, analyzing, and reporting patterns or themes within the data (Mudarris & Rizal, 2023). This method is chosen because it allows for a detailed examination of complex qualitative data and helps uncover insights that might not be immediately apparent.

To enhance the rigour of the analysis, the researcher employs data triangulation, which involves cross-verifying data from multiple sources. This technique helps in ensuring that the findings are accurate and credible. Furthermore, coding is used to categorize the data and facilitate the identification of key themes and patterns. The study aims to provide robust insights into the development and implementation of IT-based learning media in PAI by employing thematic analysis and data triangulation.

RESEARCH FINDINGS AND DISCUSSION

Research Findings

The findings of this research reveal several key insights regarding integrating IT-based learning media in Islamic Religious Education (PAI). The data collected from interviews and observations highlight that most educators acknowledge the potential benefits of IT in enhancing student engagement and learning outcomes. However, the level of IT adoption varies significantly across institutions, with some schools demonstrating high levels of integration while others struggle due to limited resources (Hayani et al., 2023). Additionally, the study found that students respond positively to IT-based learning media, mainly involving interactive elements such as multimedia content and digital quizzes.

Table 1: Summary of IT Adoption Levels in Different Schools

Institution	Level of IT Adoption	Key Challenges
School A	High	Limited Teacher Training
School B	Medium	Insufficient Digital Infrastructure
School C	Low	Lack of Funding and Support

Moreover, the findings indicate that schools with higher levels of IT adoption tend to have more positive student outcomes, including increased motivation and improved academic performance. These results are consistent with

previous studies, showing a positive correlation between IT integration and student engagement (Ngura & Fono, 2023).

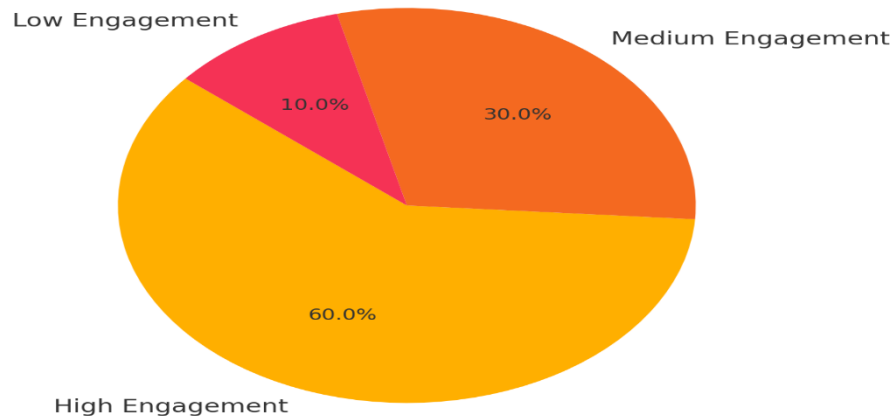


Figure 1: Student Engagement with IT-Based Learning Media

Figure 1 illustrates the levels of student engagement when using IT-based learning media in Islamic Religious Education (PAI). The chart shows that 60% of students exhibit high engagement, indicating a strong positive response to IT-enhanced learning environments. 30% of students demonstrate medium engagement, suggesting that while they benefit from IT integration, they may require additional support or motivation. Only 10% of students report low engagement, highlighting that a small minority may face challenges adapting to IT-based learning methods. This distribution underscores the effectiveness of IT-based tools in fostering active learning and engagement among most students, aligning with previous research findings on digital learning benefits.

Discussion

The findings of this study underscore the importance of IT-based learning media in modernizing Islamic Religious Education. The positive responses from both educators and students suggest that digital tools have the potential to transform traditional teaching methods and create a more interactive and engaging learning environment. Furthermore, the varying levels of IT adoption across institutions highlight the need for targeted interventions, such as teacher training programs and infrastructure development, to promote wider adoption of IT in education (Mudarris & Rizal, 2023).

This study's results align with previous research, which has consistently shown the benefits of IT integration in education. For example, the findings align with the work of Santoso (2020), who emphasized the role of IT in enhancing learning experiences and outcomes. However, this study focuses on Islamic Religious Education, thereby addressing a gap in the existing literature. While studies such as those by Hamidi (2018) have explored IT-based learning in general education, few have delved into its application in religious education, making this research a valuable contribution to the field.

Despite its contributions, this study has several limitations.

First, the research is limited to a small number of schools, which may affect the generalizability of the findings. Second, the study relies heavily on qualitative data, which, while rich in detail, may be subject to researcher bias. Third, the availability of resources and support for IT adoption varied widely across the schools studied, which may have influenced the results. Future research could address these limitations by including a larger sample size and employing a mixed-methods approach to provide a more comprehensive understanding of the topic.

CONCLUSION

Summary

This study has provided valuable insights into integrating IT-based learning media in Islamic Religious Education (PAI). The findings indicate that IT-based learning tools significantly enhance student engagement and improve learning outcomes, mainly when using interactive multimedia elements. Schools that have adopted IT in their teaching practices report higher student motivation and academic performance levels. However, the study also highlights critical challenges, including limited digital infrastructure, inadequate teacher training, and insufficient funding, which hinder the broader adoption of IT-based learning media in some institutions. These findings underscore the importance of targeted interventions and policy support to promote the effective use of digital tools in religious education.

This research is significant because it contributes to the ongoing discourse on modernizing Islamic education through digital transformation. By addressing the specific needs of PAI, this study has bridged a critical gap in the existing literature, offering practical solutions and recommendations for educators, policymakers, and educational institutions.

Future Work

While this study has made significant contributions, several areas remain for future research.

First, future studies could adopt a mixed-methods approach to provide a more comprehensive understanding of the impact of IT-based learning media on different educational outcomes. Second, longitudinal studies could be conducted to assess the long-term effects of IT integration on student performance and engagement. Third, further research is needed to explore the application of IT-based learning tools in rural and underprivileged areas where access to digital infrastructure may be limited.

Finally, future research could investigate the development of specific IT-based modules tailored to various Islamic Religious Education topics, ensuring that digital tools cater to diverse learning needs.

By addressing these areas, future research can build on this study's findings and contribute to the broader goal of enhancing educational equity and quality through digital innovation.

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