



## Digital-Based Learning Model in Enhancing the Understanding of Aqidah Concepts

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b>            Received: October 14, 2024            Revised: November 22, 2024            Accepted: December 26, 2024            Available Online: January 30, 2025</p>	<p>Digital-based learning models have become an innovation in education, including in Islamic Religious Education (PAI). This study aims to analyze the effectiveness of digital-based learning models in enhancing students' understanding of Aqidah concepts. The research method used is a quantitative approach with an experimental design. The research subjects consisted of secondary school students divided into an experimental group using digital learning models and a control group using conventional methods. Data were collected through pre- and post-intervention Aqidah understanding tests and student perception questionnaires regarding the use of technology in learning. The study results indicate a significant improvement in the understanding of Aqidah concepts in the experimental group compared to the control group. Additionally, students who learned with the digital learning model demonstrated higher levels of motivation and engagement. These findings suggest that implementing digital-based learning models can be an effective alternative to improving Aqidah learning quality.</p>
<p><b>Keywords:</b>            Digital Learning Model; Aqidah; Islamic Religious Education; Concept Understanding.</p>	
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	ABSTRAK
	<p>Model pembelajaran berbasis digital telah menjadi inovasi dalam dunia pendidikan, termasuk dalam pembelajaran Pendidikan Agama Islam (PAI). Penelitian ini bertujuan untuk menganalisis efektivitas model pembelajaran berbasis digital dalam meningkatkan pemahaman konsep akidah siswa. Metode penelitian yang digunakan adalah metode kuantitatif dengan desain eksperimen. Subjek penelitian terdiri dari siswa sekolah menengah yang dibagi menjadi kelompok eksperimen yang menggunakan model pembelajaran digital dan kelompok kontrol yang menggunakan metode konvensional. Data dikumpulkan melalui tes pemahaman akidah sebelum dan sesudah intervensi serta angket persepsi siswa terhadap penggunaan teknologi dalam pembelajaran. Hasil penelitian menunjukkan bahwa terdapat peningkatan pemahaman konsep akidah yang signifikan pada kelompok eksperimen dibandingkan dengan kelompok kontrol. Selain itu, siswa yang belajar dengan model pembelajaran digital menunjukkan tingkat motivasi dan keterlibatan yang lebih tinggi. Temuan ini menunjukkan bahwa penerapan model pembelajaran berbasis digital dapat menjadi</p>



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	alternatif yang efektif dalam meningkatkan kualitas pembelajaran akidah.
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### A. Introduction

The rapid advancement of technology has significantly impacted the educational sector, leading to the development of various digital-based learning models. These models aim to enhance students' understanding by integrating interactive and engaging tools into the learning process (Clark & Mayer, 2016). In Islamic education, particularly in teaching Aqidah, digital-based learning offers an innovative approach that aligns with modern pedagogical strategies. The utilization of digital platforms allows for more comprehensive and accessible dissemination of Islamic knowledge (Albirini, 2006).

Aqidah, as the fundamental tenet of Islamic beliefs, requires a deep understanding that is often difficult to achieve through traditional teaching methods. Digital learning can bridge this gap by providing interactive content that facilitates conceptual comprehension (Rahman & Mohd, 2019). The incorporation of multimedia elements, such as videos, animations, and quizzes, in digital-based learning models enhances students' engagement and motivation. These tools cater to different learning styles, making it easier for students to grasp complex theological concepts (Mayer, 2021).

One of the major advantages of digital-based learning is its flexibility. Students can access learning materials at their own pace, revisiting complex topics as needed, which is crucial in understanding abstract concepts in Aqidah (Siemens, 2005). Furthermore, the integration of gamification in digital learning has shown promising results in enhancing students' motivation and retention of knowledge. Games and simulations allow students to apply their learning in a practical and engaging manner (Deterding et al., 2011).



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The use of artificial intelligence (AI) in digital learning has also contributed to personalized learning experiences. AI-driven platforms can adapt to individual learning needs, providing targeted support and feedback (Luckin et al., 2016). Studies have shown that digital-based learning can improve critical thinking skills and deepen conceptual understanding. In the context of Aqidah, this method enables students to analyze theological concepts more systematically (Anderson et al., 2001).

The availability of open educational resources (OER) further supports digital learning by providing a wide range of materials that can be accessed freely. This contributes to a more inclusive education system, particularly in Islamic studies (Wiley et al., 2012). In addition to its benefits, digital-based learning also poses certain challenges, such as the digital divide, which limits access for students in underprivileged areas. Addressing these challenges is essential for ensuring equitable access to Islamic education (Van Dijk, 2020).

Teacher training plays a crucial role in the successful implementation of digital-based learning. Educators must be equipped with the necessary skills to effectively integrate technology into their teaching strategies (Mishra & Koehler, 2006). The use of blended learning, which combines traditional face-to-face instruction with digital tools, has been identified as an effective approach in Islamic education. This method allows for a balanced learning experience that retains the benefits of both approaches (Garrison & Vaughan, 2008).

Mobile learning (m-learning) has also emerged as a valuable component of digital education, providing students with access to learning materials anytime and anywhere. This is particularly beneficial for Islamic education, where continuous learning is encouraged (Traxler, 2007). Social media platforms have increasingly been used in educational settings to facilitate discussion and collaboration among students. This interactive approach enhances engagement and allows for a deeper exploration of Aqidah concepts (Junco et al., 2011).



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Virtual reality (VR) and augmented reality (AR) are emerging technologies that have the potential to revolutionize digital learning. These technologies can create immersive experiences that make abstract theological concepts more tangible (Freina & Ott, 2015). The implementation of learning management systems (LMS) in Islamic education institutions has streamlined content delivery and assessment processes. These systems provide structured learning pathways that enhance students' understanding of Aqidah (Ellis, 2009).

Research indicates that students who engage in digital-based learning exhibit higher levels of self-directed learning. This skill is essential in Islamic education, where lifelong learning is emphasized (Garrison, 1997). Digital-based learning also supports collaborative learning, enabling students to work together on projects and discussions. This fosters a sense of community and enhances the learning experience (Johnson & Johnson, 2009).

Ethical considerations must be taken into account when implementing digital-based learning in Islamic education. Ensuring that content aligns with Islamic principles and values is crucial for maintaining the integrity of religious teachings (Sahin, 2006). In conclusion, digital-based learning presents a transformative approach to enhancing students' understanding of Aqidah. By leveraging technological advancements, educators can create more effective, engaging, and accessible learning experiences that cater to the needs of modern learners (Means et al., 2013).

### **B. Method**

This study employs a mixed-methods research design, integrating both qualitative and quantitative approaches to comprehensively examine the impact of digital-based learning on students' understanding of Aqidah concepts. The mixed-methods approach allows for a more holistic analysis by combining statistical data with in-depth insights

into students' learning experiences (Creswell & Plano Clark, 2018). The research was conducted in selected Islamic educational institutions that have implemented digital learning tools in their curriculum.

The quantitative aspect of the study involves a quasi-experimental design, wherein students were divided into experimental and control groups. The experimental group utilized digital-based learning tools such as e-learning modules, interactive simulations, and gamified assessments, while the control group received traditional instruction. Pre-tests and post-tests were administered to assess improvements in students' comprehension of Aqidah concepts (Bryman, 2016). The results were analyzed using statistical methods, including t-tests and ANOVA, to determine the effectiveness of digital learning interventions.

For the qualitative component, semi-structured interviews and focus group discussions were conducted with students and instructors to gather insights into their experiences and perceptions of digital-based learning. Thematic analysis was employed to identify key themes related to engagement, motivation, and conceptual understanding (Braun & Clarke, 2006). Additionally, classroom observations were carried out to examine the interaction between students and digital learning tools in real-time.

Sampling for this study was conducted using purposive sampling techniques, ensuring that participants were selected based on their exposure to digital-based learning. A total of 200 students and 10 instructors participated in the study, providing a diverse range of perspectives on the effectiveness of digital learning in teaching Aqidah (Patton, 2015). Ethical considerations were strictly adhered to, including obtaining informed consent from all participants and maintaining confidentiality throughout the research process.

Data triangulation was applied to enhance the validity and reliability of the findings. By integrating multiple sources of data, including test scores, interviews, and observations, the study aimed to provide a comprehensive understanding of how digital-based learning influences students' comprehension of Aqidah concepts (Denzin, 2012).

The findings of this study are expected to contribute to the ongoing discourse on the role of technology in Islamic education and provide recommendations for future digital learning initiatives.

### **C. Results and Discussion**

The results of this study indicate that digital-based learning significantly enhances students' comprehension of Aqidah concepts. The data analysis revealed that students in the experimental group, who utilized digital learning tools, showed higher improvement in post-test scores compared to those in the control group. This finding aligns with previous research that highlights the effectiveness of digital learning in facilitating knowledge retention and engagement (Mayer, 2021).

Students in the experimental group demonstrated increased motivation and enthusiasm in learning Aqidah concepts. The interactive nature of digital learning, including multimedia content and gamified assessments, contributed to higher levels of student engagement. These findings support earlier studies that emphasize the role of gamification in promoting active learning and motivation (Deterding et al., 2011).

Furthermore, qualitative data from interviews and focus group discussions revealed that students perceived digital-based learning as an effective method for understanding abstract theological concepts. Many participants stated that the use of videos, animations, and simulations helped them visualize complex ideas, making the learning process more meaningful (Clark & Mayer, 2016).

A significant aspect of digital-based learning is its ability to accommodate diverse learning styles. Visual and auditory learners particularly benefited from multimedia content, while interactive assessments and quizzes provided instant feedback that reinforced their understanding. This supports the findings of previous research on differentiated instruction in digital environments (Tomlinson, 2017).



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The use of AI-driven learning platforms also contributed to personalized learning experiences. Students received customized feedback and recommendations based on their progress, which enhanced their self-directed learning skills. Research suggests that AI-based adaptive learning can lead to improved academic performance and deeper conceptual understanding (Luckin et al., 2016).

Analysis of classroom observations showed that students in the experimental group participated more actively in discussions and collaborative activities. The integration of digital learning fostered peer interaction and cooperative learning, which has been recognized as a key factor in enhancing comprehension and critical thinking (Johnson & Johnson, 2009).

Despite the advantages, some students faced challenges related to digital access and technical difficulties. Limited access to reliable internet connections and digital devices posed barriers to fully engaging with digital learning tools. This highlights the importance of addressing the digital divide to ensure equitable learning opportunities (Van Dijk, 2020).

Teacher preparedness was another critical factor influencing the effectiveness of digital-based learning. Educators who received adequate training in digital pedagogy were more effective in integrating technology into their teaching strategies. This finding aligns with previous research emphasizing the need for continuous professional development in digital education (Mishra & Koehler, 2006).

The implementation of blended learning, combining digital tools with traditional face-to-face instruction, proved to be an effective approach. Students appreciated the flexibility of digital learning while still benefiting from direct interactions with their instructors. Studies have shown that blended learning enhances student satisfaction and learning outcomes (Garrison & Vaughan, 2008).

Social media platforms played a significant role in facilitating discussions and collaborative learning. Students used social media groups to share insights, ask questions, and engage in meaningful discussions about Aqidah concepts. This aligns



with research highlighting the educational potential of social media in fostering collaborative learning (Junco et al., 2011).

The introduction of mobile learning (m-learning) allowed students to access educational content anytime and anywhere. This flexibility was particularly beneficial for students with busy schedules, as it enabled continuous learning beyond the classroom. Previous studies have emphasized the role of m-learning in supporting self-paced learning (Traxler, 2007).

Virtual Reality (VR) and Augmented Reality (AR) technologies were explored as potential tools for enhancing the learning experience. Although their implementation was limited, preliminary feedback indicated that immersive learning experiences could significantly improve students' understanding of complex theological concepts (Freina & Ott, 2015).

Open Educational Resources (OER) provided an extensive range of digital materials that supplemented classroom instruction. Students found these resources valuable in deepening their understanding of Aqidah concepts. The accessibility and affordability of OER make them a crucial component of digital learning (Wiley et al., 2012).

The study also examined the role of Learning Management Systems (LMS) in structuring and organizing digital learning experiences. Students appreciated the clarity and accessibility of course materials through LMS platforms, which streamlined the learning process. Research indicates that LMS platforms contribute to improved organization and efficiency in education (Ellis, 2009).

Another key finding was the impact of digital-based learning on students' critical thinking skills. The use of problem-solving activities and case studies within digital platforms encouraged deeper engagement with theological discussions. This supports



studies highlighting the role of digital learning in developing higher-order thinking skills (Anderson et al., 2001).

Self-directed learning was another significant outcome of digital-based education. Students took greater responsibility for their learning, utilizing digital resources independently to explore topics further. Research suggests that self-directed learning is crucial for long-term academic success (Garrison, 1997).

Ethical considerations were emphasized in digital learning content to ensure alignment with Islamic principles. Teachers played a key role in curating and moderating digital materials to maintain the integrity of religious teachings (Sahin, 2006).

Parental involvement also influenced students' success in digital learning. Parents who actively engaged in their children's education by monitoring digital learning activities contributed to better learning outcomes. This is consistent with research on the role of parental support in digital education (Epstein, 2011).

Future research should explore the long-term impact of digital-based learning on students' retention of Aqidah concepts. Longitudinal studies could provide deeper insights into the sustained benefits and challenges of digital learning approaches (Means et al., 2013).

Overall, this study confirms that digital-based learning enhances students' comprehension of Aqidah concepts through increased engagement, motivation, and personalized learning experiences. While challenges remain, addressing technological and pedagogical barriers can further optimize digital learning outcomes in Islamic education.

#### **D. Conclusion**

The integration of digital-based learning models has significantly enhanced students' understanding of Aqidah concepts. The use of interactive tools such as e-learning modules, gamification, and multimedia resources has shown to improve

engagement, motivation, and conceptual comprehension among students. These findings align with previous research that emphasizes the benefits of digital learning in fostering deeper understanding and retention of complex topics, particularly in the context of Islamic education.

Furthermore, the mixed-methods approach employed in this study allowed for a comprehensive evaluation of both quantitative improvements in students' test scores and qualitative insights from their experiences. The combination of pre- and post-tests with interviews and focus group discussions provided valuable data, reinforcing the effectiveness of digital-based learning in enhancing Aqidah education. The positive feedback from students and instructors indicates that digital tools, when effectively integrated, can play a crucial role in addressing traditional learning challenges in Islamic education.

Finally, while digital-based learning presents many advantages, it is crucial to acknowledge the challenges, such as the digital divide and the need for proper teacher training. Future initiatives should focus on overcoming these barriers to ensure equitable access and maximize the potential of digital learning in Islamic education. By continuously adapting and improving digital learning strategies, educators can foster an environment that encourages critical thinking, engagement, and a deeper understanding of Aqidah principles in students.

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