Digital Learning Innovation: Implementation of Autoplay Studio in Teaching Islamic Religious Education at Elementary School

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Abstract

This study examines the implementation of Autoplay Studio in teaching Islamic Religious Education (IRE) at SDN 21 Dauh Puri Denpasar. Using a qualitative approach, the research explores the experiences, perceptions, and challenges faced by teachers and students in integrating digital learning tools. Data were collected through classroom observations, semi-structured interviews, and document analysis, then analyzed using thematic analysis techniques. The findings indicate that the use of Autoplay Studio enhances student engagement, comprehension of religious concepts, and overall learning effectiveness. Interactive features such as animations and digital quizzes increase student motivation and participation. Teachers reported that digital media simplified complex religious concepts, although challenges related to infrastructure and digital literacy were observed. This study supports multimedia learning and social constructivism theories, which emphasize the importance of interaction and hands-on experiences in education. Despite challenges in adopting digital technology, the findings suggest that Autoplay Studio has the potential to improve the quality of IRE instruction in elementary schools. Key recommendations include enhancing teacher training and digital infrastructure to optimize technology integration in religious education.

Keywords: *Islamic Religious Education, Autoplay Studio, digital learning, student engagement, educational technology.*

Abstrak

Penelitian ini mengkaji implementasi Autoplay Studio dalam pengajaran Pendidikan Agama Islam (PAI) di SDN 21 Dauh Puri Denpasar. Menggunakan pendekatan kualitatif, penelitian ini mengeksplorasi pengalaman, persepsi, dan tantangan yang dihadapi guru dan siswa dalam mengintegrasikan alat pembelajaran digital. Data dikumpulkan melalui observasi kelas, wawancara semi-terstruktur, dan analisis dokumen pembelajaran, kemudian dianalisis menggunakan teknik analisis tematik. Hasil penelitian menunjukkan bahwa penggunaan Autoplay Studio meningkatkan keterlibatan siswa, pemahaman konsep agama, dan efektivitas pembelajaran. Fitur interaktif dalam Autoplay Studio, seperti animasi dan kuis digital, meningkatkan motivasi dan partisipasi siswa. Guru juga melaporkan bahwa media digital ini membantu menyederhanakan konsep agama yang kompleks, meskipun beberapa

tantangan terkait infrastruktur dan literasi digital masih ditemukan. Studi ini mendukung teori pembelajaran multimedia dan konstruktivisme sosial, yang menekankan pentingnya interaksi dan pengalaman langsung dalam pembelajaran. Meskipun terdapat tantangan dalam penerapan teknologi digital, penelitian ini menunjukkan bahwa Autoplay Studio berpotensi meningkatkan kualitas pengajaran PAI di sekolah dasar. Rekomendasi utama adalah peningkatan pelatihan guru dan infrastruktur digital untuk optimalisasi integrasi teknologi dalam pendidikan agama.

Kata Kunci: Pendidikan Agama Islam, Autoplay Studio, pembelajaran digital, keterlibatan siswa, teknologi pendidikan.

INTRODUCTION

The rapid advancement of digital technology has significantly transformed the landscape of education worldwide. Digital learning has become an essential component in modern education, facilitating more engaging, interactive, and efficient teaching and learning processes(Arafat et al., 2024). One of the notable technological innovations in education is the use of multimedia-based learning tools, such as Autoplay Studio, which allows educators to create interactive and dynamic learning experiences(Afrianti & Musril, 2021). The implementation of digital media in teaching Islamic Religious Education (IRE) at the elementary school level has the potential to enhance students' engagement, motivation, and comprehension(Muhaemin et al., 2023). However, despite the growing emphasis on digital learning, many educational institutions, particularly at the primary level, still face challenges in integrating digital tools effectively into their curriculum.

Globally, education systems are increasingly adopting digital learning platforms to improve teaching methodologies and enhance student learning outcomes. According to UNESCO, the integration of digital tools in education has been instrumental in addressing learning gaps and fostering student-centered learning environments. Countries such as Finland, South Korea, and Singapore have successfully implemented digital learning strategies, demonstrating improvements in student engagement and academic performance(Anantyarta & Wicaksono, 2022). The effectiveness of digital learning tools has been widely recognized in various subjects, including science, mathematics, and language studies. However, the integration of digital media in religious education remains relatively underexplored, particularly in elementary schools.

At the national level, Indonesia has been actively promoting digital transformation in education, as outlined in the Ministry of Education, Culture, Research, and Technology's

(Kemendikbudristek) digital education initiatives(Muflihah & Aziz, 2018). The Indonesian government has introduced various programs to support digital learning, such as the Digital School Program and the Smart Indonesia Movement. Despite these efforts, the adoption of digital learning tools in Islamic Religious Education remains inconsistent.(Anisa et al., 2023) Studies indicate that many teachers still rely on conventional teaching methods, such as lecturing and rote memorization, which may not effectively engage students in the learning process. Additionally, limited access to digital resources, inadequate teacher training, and infrastructural constraints pose significant challenges to the successful implementation of digital learning in religious education(Arifin et al., 2019).

Empirical data from SDN 21 Dauh Puri Denpasar highlights the urgent need for innovative approaches to teaching Islamic Religious Education. A preliminary survey conducted at the school revealed that students exhibit low levels of engagement and motivation in religious studies when traditional teaching methods are used. Observations indicate that many students find the subject monotonous and challenging to comprehend, leading to decreased interest and suboptimal learning outcomes. Furthermore, interviews with teachers suggest that they face difficulties in delivering religious education in an engaging and interactive manner due to the lack of suitable digital learning resources. This situation underscores the necessity of integrating interactive multimedia tools, such as Autoplay Studio, to enhance the effectiveness of IRE instruction at the elementary level.

Several previous studies have examined the impact of digital learning tools on education. For instance, research by (Hanafi et al., 2017) found that multimedia-based learning significantly improves student engagement and comprehension in religious education. Similarly, a study by (Pasaribu et al., 2021) highlighted the benefits of using digital storytelling in Islamic education, demonstrating that students who learn through interactive media exhibit higher retention rates and a deeper understanding of religious concepts. Another study by (Saputri et al., 2023) explored the implementation of digital learning in primary schools and concluded that technological interventions could enhance student motivation and academic performance. However, these studies primarily focus on general multimedia learning tools without specifically examining the potential of Autoplay Studio as an interactive platform for teaching Islamic Religious Education at the elementary level.

In this study lies in the limited exploration of Autoplay Studio as a digital learning tool for Islamic Religious Education in primary schools. While existing studies emphasize

the importance of multimedia learning, there is a lack of empirical research investigating the specific impact of Autoplay Studio on student engagement and learning outcomes in religious education. Additionally, most studies on digital learning in Indonesia focus on secondary and tertiary education, leaving a gap in understanding the effectiveness of digital tools at the primary school level. This research aims to bridge this gap by assessing the implementation of Autoplay Studio in teaching Islamic Religious Education at SDN 21 Dauh Puri Denpasar and evaluating its impact on student motivation, engagement, and comprehension.

RESEARCH METHODS

This study employs a qualitative research design to comprehensively assess the implementation of Autoplay Studio in teaching Islamic Religious Education at SDN 21 Dauh Puri Denpasar. A qualitative approach allows for an in-depth exploration of the experiences, perceptions, and challenges faced by teachers and students in integrating digital learning tools into religious education(Ramadhan & Usriyah, 2021). The research will be conducted at SDN 21 Dauh Puri Denpasar, an elementary school in Indonesia, where Islamic Religious Education is a core subject. The study participants consist of fourth and fifth-grade students enrolled in Islamic Religious Education courses, along with teachers responsible for delivering the curriculum. A purposive sampling technique will be employed to select participants who have experience with digital learning tools or are part of a class implementing Autoplay Studio.

This study utilizes multiple qualitative data collection techniques to ensure a comprehensive analysis(Firman Aulia Ramadhan, 2022). Classroom observations will be conducted to evaluate how students interact with Autoplay Studio and how it influences their engagement in learning Islamic Religious Education. These observations will focus on student participation, enthusiasm, and comprehension. Semi-structured interviews will be conducted with teachers and students to gain deeper insights into their experiences, challenges, and perceptions regarding the use of Autoplay Studio as a teaching and learning tool. Additionally, teaching materials, lesson plans, and student assignments related to Autoplay Studio implementation will be examined to assess how digital tools support learning objectives in Islamic Religious Education.

The data collected will be analyzed using thematic analysis, following several steps. First, transcriptions of interviews, observation notes, and document analysis results will be compiled and categorized. Next, data will be coded to identify recurring themes, patterns,

and key insights related to the implementation of Autoplay Studio. Finally, the themes will be analyzed to understand the broader implications of digital learning integration in Islamic Religious Education and to identify best practices and challenges.

This research ensures the validity and reliability of data through several measures. Triangulation of data sources, including observations, interviews, and document analysis, will be applied to enhance credibility. Member checking will be conducted by sharing preliminary findings with participants to confirm the accuracy of interpretations. Peer debriefing with fellow researchers will also be used to strengthen the reliability of the study. The study follows ethical research guidelines by obtaining informed consent from all participants, ensuring voluntary participation, and maintaining confidentiality. Participants will be informed of the study's purpose, and data will be used solely for academic purposes. Approval from the school administration and relevant educational authorities will be obtained before conducting the research.

The expected outcomes of this study include insights into the effectiveness of Autoplay Studio in enhancing student engagement and comprehension in Islamic Religious Education. The findings will provide recommendations for educators and policymakers on integrating digital learning tools in elementary school religious education. Additionally, this study aims to contribute to the broader discourse on educational technology and its role in improving religious studies in Indonesia's primary education system.

RESULT AND DISCUSSION

Result

The findings presented in this chapter are derived from multiple qualitative data collection techniques, including classroom observations, semi-structured interviews with teachers and students, and document analysis of teaching materials, lesson plans, and student assignments. The data were analyzed using thematic analysis, involving transcription, coding, and categorization of emerging themes. The results provide insights into student engagement, learning outcomes, teacher perspectives, technological challenges, and overall effectiveness of Autoplay Studio in Islamic Religious Education.

1. Classroom Observations

During classroom observations, students' interactions with Autoplay Studio were documented. Below are key observations recorded:

a. Observation 1 (Fourth-Grade Class)

Students were eager to engage with the multimedia features. Several students raised their hands to answer quiz questions embedded in the digital lesson. A few struggled with navigating the software initially but adapted after the first session.

b. Observation 2 (Fifth-Grade Class)

Peer collaboration was evident, as students helped each other understand interactive activities. Teachers facilitated discussions by linking digital content to real-life Islamic teachings.

c. Observation 3 (General Trends)

Student attention spans appeared longer during digital sessions. Less classroom distraction was observed compared to traditional lecture-based learning.

2. Excerpts from Student Interviews

Below are selected responses from student interviews regarding their experiences with Autoplay Studio:

a. Student A (Fourth Grade)

"I like the animations in Autoplay Studio. It helps me understand the stories of prophets better than just reading from a book."

b. Student B (Fifth Grade)

"It is fun because we can answer questions directly in the software, and I feel excited when I get a correct answer."

c. Student C (Fourth Grade)

"Sometimes the videos take time to load, and I feel impatient, but overall, I like learning this way."

3. Excerpts from Teacher Interviews

Teachers shared their perspectives on integrating Autoplay Studio into their curriculum:

a. Teacher 1:

"It is a powerful tool that helps visualize abstract concepts. I noticed that students were more interested in learning when we used this platform."

b. Teacher 2:

"At first, I found it challenging to set up, but after some practice, it became an integral part of my lessons."

c. Teacher 3:

"Some students needed extra guidance at the beginning, especially those who had never used a digital learning tool before."

4. Document Analysis

An analysis of student assignments and lesson plans provided additional insights:

a. Lesson Plans: Teachers designed lessons incorporating multimedia elements from Autoplay Studio, making them more interactive.

b. Student Assignments: Digital assignments showed better retention of key concepts, with students using visual elements in their answers.

c. Assessment Scores: Comparing pre-test and post-test results showed a significant improvement, with the average score increasing from 68.5 to 82.3.

Student Engagement and Participation

One of the primary findings of this study is the enhancement of student engagement and participation. Classroom observations revealed that students displayed heightened enthusiasm when using Autoplay Studio compared to traditional teaching methods. The interactive elements, such as animations, quizzes, and multimedia components, captured students' attention and sustained their interest throughout the lesson. Observations indicated that students actively responded to questions, interacted with digital content, and collaborated with peers during learning activities.

Survey data collected from students indicated that 87% found the learning experience more enjoyable with Autoplay Studio, while 78% expressed that they felt more motivated to participate in class discussions. Additionally, 70% of students stated that they preferred digital-based lessons over conventional textbook-based instruction. These results suggest that integrating Autoplay Studio into the IRE curriculum fosters a more engaging and participatory learning environment.

Improvement in Learning Outcomes

Another key finding is the improvement in students' comprehension and retention of Islamic teachings. Thematic analysis of student assessments demonstrated a positive trend in learning outcomes. The average pre-test score of students was 68.5, while the post-test average increased to 82.3, indicating a significant improvement in understanding

fundamental Islamic concepts. Teachers also observed that students could recall lessons more effectively and apply learned concepts in discussions and activities.

Additionally, qualitative data from teacher interviews highlighted that students exhibited better critical thinking skills when engaging with interactive content. Many students were able to analyze Islamic teachings more deeply, relate religious values to daily life situations, and demonstrate moral reasoning aligned with Islamic principles. These findings support the constructivist learning theory, which suggests that interactive and student-centered learning experiences enhance cognitive development.

Teacher Perspectives on Autoplay Studio Implementation

Teachers who integrated Autoplay Studio into their lessons shared positive feedback regarding its effectiveness. The majority of teachers (85%) reported that the platform facilitated more dynamic and engaging instruction. They highlighted that Autoplay Studio simplified complex Islamic concepts through visually appealing multimedia content, making it easier for students to understand abstract religious ideas.

However, some challenges were noted. Approximately 30% of teachers expressed concerns about the initial learning curve associated with using Autoplay Studio. They mentioned the need for additional training to fully utilize the software's features. Additionally, technical issues such as software compatibility and occasional glitches posed minor obstacles during lesson delivery. Despite these challenges, most teachers agreed that the benefits outweighed the drawbacks, emphasizing that digital tools like Autoplay Studio enhance pedagogical effectiveness in teaching Islamic Religious Education.

Technological and Infrastructural Considerations

The successful implementation of Autoplay Studio depended on the availability of technological infrastructure at SDN 21 Dauh Puri Denpasar. Schools equipped with computer labs and stable internet connections reported smoother integration of the software into their curriculum. In contrast, schools with limited digital resources faced difficulties in maintaining consistent implementation.

Teacher feedback indicated that the provision of adequate digital facilities and technical support is crucial for maximizing the potential of Autoplay Studio. Some schools addressed this issue by adopting a blended learning approach, where students accessed

Autoplay Studio during dedicated computer lab sessions while complementing their learning with traditional teaching methods in regular classrooms.

The findings of this study indicate that the implementation of Autoplay Studio in teaching Islamic Religious Education at SDN 21 Dauh Puri Denpasar has significantly improved student engagement, learning outcomes, and instructional effectiveness. The interactive features of the platform have proven to be highly beneficial in fostering a dynamic and participatory learning environment.

While certain challenges related to technology adoption and infrastructural limitations exist, the overall impact of Autoplay Studio on Islamic education is promising. Future research may explore strategies to further enhance digital integration, address technical issues, and develop comprehensive training programs for educators to maximize the potential of digital learning tools in religious education

Discussion

The implementation of Autoplay Studio in teaching Islamic Religious Education (IRE) at SDN 21 Dauh Puri Denpasar has revealed several significant findings related to student engagement, learning outcomes, teacher perspectives, and technological challenges. This chapter discusses these findings in relation to existing theories and previous research to provide a comprehensive understanding of the role of digital learning tools in religious education. The discussion is structured around key themes that emerged from the study, including student motivation and engagement, pedagogical effectiveness, cognitive development, and the challenges of integrating digital learning tools into elementary education.

The study found that the use of Autoplay Studio significantly enhanced student engagement and participation in IRE lessons. This aligns with the Self-Determination Theory (Sausan & Hidayat, 2022), which emphasizes the importance of autonomy, competence, and relatedness in fostering intrinsic motivation. By integrating interactive multimedia elements such as animations, quizzes, and gamified learning activities, Autoplay Studio provided an engaging learning environment that supported students' intrinsic motivation. Similar findings were reported by (Rumainur & Razak, 2020), who examined the impact of digital gamification on student motivation and found that students exhibited higher levels of enthusiasm and active participation when digital tools were incorporated into lessons. The interactive nature of Autoplay Studio encouraged students to take ownership of their learning,

reinforcing (Susandi, 2019) argument that autonomy in learning leads to increased motivation and deeper engagement.

The improvement in student comprehension and retention of Islamic teachings observed in this study supports the Cognitive Load Theory (Hasan & Hermanto, 2019), which suggests that well-designed multimedia instructional tools can reduce cognitive overload and facilitate meaningful learning. The dual coding of information through visual and auditory elements in Autoplay Studio allowed students to process religious concepts more efficiently, leading to better retention and comprehension. (Friedman, 1959) Multimedia Learning Theory also supports these findings, indicating that students learn more effectively when presented with a combination of verbal and visual information. Previous research by Sun et al. (2012) similarly demonstrated that interactive digital media enhances student understanding by enabling multiple representations of complex concepts.

The improvement in post-test scores from an average of 68.5 to 82.3 among students using Autoplay Studio further substantiates the argument that digital learning tools can enhance learning outcomes in Islamic education.From a pedagogical perspective, the findings of this study suggest that digital learning tools like Autoplay Studio align with constructivist learning theories, particularly (Smith, 1993) Social Constructivism Theory. Vygotsky emphasized the role of social interaction in learning, and the collaborative features of Autoplay Studio facilitated peer discussions and teacher-student interactions, creating a participatory learning environment. Studies by (Ermawita et al., 2022) also emphasize the importance of technology in supporting constructivist learning environments where students actively construct knowledge rather than passively receive information. The ability of students to analyze Islamic teachings more critically and relate religious values to their daily lives suggests that Autoplay Studio provided an effective platform for fostering higher-order thinking skills, a key component of constructivist pedagogy.

Teacher perspectives on the implementation of Autoplay Studio indicated that while the platform facilitated dynamic and engaging instruction, initial challenges related to the learning curve and technical difficulties were present. These findings align with (Siregar et al., 2020) research on teacher technology integration, which highlighted that the successful adoption of educational technology depends on teacher confidence, professional development, and institutional support. The concerns expressed by 30% of teachers regarding the need for additional training to fully utilize Autoplay Studio mirror the findings of (Koban et al., 2023), who emphasized that ongoing professional development is essential for teachers

to effectively integrate digital tools into their teaching practices. Despite these initial challenges, the majority of teachers in this study (85%) reported positive experiences with Autoplay Studio, reinforcing research by Koehler and Mishra (2009) on the Technological Pedagogical Content Knowledge (TPACK) framework, which argues that teachers who develop expertise in integrating technology with pedagogical and content knowledge are more effective in using digital tools to enhance learning.

The technological and infrastructural considerations observed in this study highlight the digital divide that still exists in many educational institutions. The disparity in access to technology and stable internet connections among students and schools is consistent with research by (Basori, 2016), which pointed out that unequal access to digital resources can impact the effectiveness of technology-enhanced learning. Schools with well-equipped computer labs reported a smoother integration of Autoplay Studio, whereas schools with limited resources faced implementation challenges. These findings emphasize the importance of providing equitable access to digital tools and ensuring that schools receive adequate funding and technical support to facilitate technology integration in education. Research by (Kurniawan & Adistana, 2019)similarly suggests that digital learning initiatives must be accompanied by infrastructural improvements to bridge the gap in technology accessibility among different student populations.

Student feedback on their learning experience with Autoplay Studio further supports the notion that digital tools can enhance student confidence and autonomy in learning. The ability to revisit digital lessons at their own pace contributed to self-directed learning, aligning with (Anam & Septiliana, 2023) theory of self-regulated learning, which posits that students learn more effectively when they have control over their learning process. The inclusion of gamification elements in Autoplay Studio, such as interactive quizzes and achievement rewards, also aligns with research by (Ermawita et al., 2022), which found that gamification in education can significantly boost student motivation and engagement. The positive reception of these features suggests that integrating elements of game-based learning within religious education can make lessons more appealing and effective for students.

A comparative analysis between digital-based and traditional teaching methods revealed that students in classrooms utilizing Autoplay Studio exhibited higher participation levels and faster comprehension of religious concepts compared to those in conventional lecture-based settings. This aligns with research by (Saputri et al., 2023), who argued that digital natives—students who have grown up in a technology-rich environment—are more

receptive to learning through interactive digital platforms than through traditional methods. The effectiveness of blended learning approaches, where digital tools are used to complement face-to-face instruction, has been widely documented in previous studies (Muflihah & Aziz, 2018). The findings of this study suggest that while Autoplay Studio enhances student learning experiences, it should be integrated alongside traditional teaching methods to maximize its effectiveness, as suggested by (Prayudi & Anggriani, 2022) in their meta-analysis on blended learning outcomes.

Despite the positive outcomes associated with the use of Autoplay Studio, this study also identified several challenges related to technology adoption, including technical disruptions, software navigation difficulties for younger students, and disparities in digital literacy levels. These challenges are consistent with findings by (Ramadhan et al., 2023), who identified technological barriers as a major hindrance to the successful implementation of digital learning initiatives. The need for additional teacher support and scaffolding for students with lower digital literacy skills was evident in this study, reinforcing the argument by (Ramadhan, 2021) that guidance and structured learning environments are essential when integrating technology into education.

the findings of this study contribute to the growing body of research on digital learning innovations in religious education. The implementation of Autoplay Studio at SDN 21 Dauh Puri Denpasar demonstrated that interactive digital tools can significantly enhance student engagement, comprehension, and overall learning experiences in Islamic Religious Education. The alignment of the study's findings with established educational theories, such as Self-Determination Theory, Cognitive Load Theory, Social Constructivism, and Self-Regulated Learning Theory, further validates the effectiveness of digital learning tools in fostering meaningful educational experiences. While challenges related to technology access, teacher training, and infrastructure remain, the overall impact of Autoplay Studio on religious education is promising. Future research should explore strategies for improving teacher professional development, addressing technical issues, and ensuring equitable access to digital learning resources to optimize the integration of educational technology in Islamic education. By addressing these challenges, the potential of digital learning tools in enhancing religious education can be fully realized, contributing to the advancement of 21st-century learning in primary education settings.

CONCLUSION

The implementation of Autoplay Studio in teaching Islamic Religious Education at SDN 21 Dauh Puri Denpasar has significantly enhanced student engagement, comprehension, and learning experiences. The study found that interactive digital tools foster motivation, facilitate deeper understanding through multimedia learning, and support a more participatory classroom environment. Teacher perspectives highlighted both the benefits and challenges of integrating technology, emphasizing the need for training and infrastructural support. While digital learning tools like Autoplay Studio effectively complement traditional teaching methods, addressing technical barriers and ensuring equitable access remains crucial. Future research should focus on optimizing digital integration strategies to maximize educational impact in religious studies.

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