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Islamic Religious Education Learning Management Based on Digital Media to Improve Students Interest in Learning

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Abstract

This research is motivated by the importance of learning innovation in the digital era to create an interesting, interactive learning atmosphere, and in accordance with the characteristics of elementary school students. The focus of this research includes aspects of planning, organizing, implementing, and evaluating Islamic Religious Education (PAI) learning based on digital media. This research uses a qualitative approach with a case study method. This research aims to analyze the management of Islamic Religious Education (PAI) learning based on digital media in increasing student interest in learning at SDN Tanjung Harapan Cianjur and SDN Sriwidari Sukabumi. Data collection techniques were carried out through interviews, observations, and documentation. The research subjects included the principal, PAI teachers, and students. Data analysis was carried out through the stages of data reduction, data presentation, and drawing conclusions. The results of the study show that: (1) Planning for PAI learning based on digital media is carried out through the preparation of teaching tools that integrate the use of media such as interactive presentations, educational videos, and digital quiz applications that are adapted to student characteristics; (2) Organization of learning is carried out through a clear division of tasks, management of digital infrastructure, and coordination between teachers and support staff; (3) Implementation of digital media-based learning is able to create a more active, interactive, and enjoyable learning atmosphere, thereby increasing student participation and enthusiasm; and (4) Learning evaluation is carried out through digital-based assessments and ongoing academic supervision to ensure learning effectiveness. Based on these findings, it can be concluded that digital media-based PAI learning management implemented systematically and in an integrated manner is able to significantly increase student interest in learning. The appropriate use of digital media not only increases student engagement but also supports the optimal achievement of learning objectives.

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Introduction

The development of digital technology has transformed various aspects of human life, including education (Indonesia, 2003). Islamic Religious Education (IRE) plays a strategic role in developing students' religious values, moral character, and spiritual awareness (Mubarok et al., 2025). Consequently, IRE instruction at the elementary school level should not only emphasize cognitive achievement but also encourage meaningful learning experiences that foster students' engagement with Islamic values (Bronfenbrenner, 1979). The integration of digital media has become one of the most promising approaches to creating interactive, student-centered, and meaningful learning environments (KEBUDAYAAN, 2023). Therefore, effective management of digital media is increasingly recognized as an essential component of improving the quality of IRE learning (Bond et al., 2020).

Previous studies have demonstrated that digital media positively influences students' learning motivation and engagement. (Fitria & Nuroh, 2025) reported that digital learning media significantly increased students' classroom participation and motivation. Likewise, (Putri et al., 2025) found that instructional videos and animation-based media effectively enhanced students' attention and curiosity. In addition, Mubarok et al. (2025) emphasized that proper management of instructional media contributes to improving students' learning interest, while (Ahsan & Khawaja, 2024) concluded that learning media management plays an important role in improving the quality of Islamic Religious Education in elementary schools. Other recent studies have also highlighted that digital transformation in education requires not only technological adoption but also effective instructional management to ensure sustainable learning outcomes (Ely & Melnick, 1980).

Although previous studies have confirmed the effectiveness of digital media and instructional management separately, only limited research has comprehensively integrated management functions—planning, organizing, actuating, and controlling—with the implementation of digital media in Islamic Religious Education (Herlina et al., 2024). Most previous studies have focused either on evaluating the effectiveness of digital media as instructional tools or discussing educational management from a general perspective (Tilaar & Mukhlis, 1999). Consequently, little attention has been paid to how systematic instructional management supports the successful implementation of digital media in IRE classrooms and contributes to enhancing elementary school students' learning interest (Djamarah, 2008). This gap indicates the need for further investigation into digital media-based IRE learning management (Wardani et al., n.d.).

The actual conditions in the research sites also demonstrate this need. Preliminary observations conducted at SDN Tanjung Harapan, Cianjur Regency, and SDN Sriwidari, Sukabumi City, revealed that the utilization of digital media largely depends on individual teachers' initiatives and has not yet been systematically integrated into instructional planning, organization, implementation, and evaluation. Teachers' varying digital competencies, limited technological facilities, and insufficient academic

supervision reduce the effectiveness of digital media implementation, thereby limiting its potential to improve students' learning interest (Mustafa & Suryadi, 2022).

The selection of SDN Tanjung Harapan and SDN Sriwidari as the research sites is based on their distinctive characteristics. Both public elementary schools have begun implementing digital media in Islamic Religious Education; however, they differ in terms of geographical location, school management, teacher readiness, and availability of technological infrastructure. Comparing these two schools provides a richer understanding of how different institutional contexts influence the implementation of digital media-based instructional management and allows the identification of best practices that may be adapted by other elementary schools. Based on these considerations, this study seeks to answer the following research question: How is digital media-based Islamic Religious Education implemented through the functions of planning, organizing, actuating, and controlling to enhance the learning interest of fifth-grade students at SDN Tanjung Harapan, Cianjur Regency, and SDN Sriwidari, Sukabumi City?

The purpose of this study is not only to describe the implementation of digital media-based Islamic Religious Education learning management but also to analyze how the integration of management functions contributes to improving students' learning interest. Furthermore, this study aims to strengthen the theoretical understanding of instructional management in digital learning environments and provide practical recommendations for improving the quality of Islamic Religious Education in elementary schools (Khakim, 2018).

The novelty of this study lies in its comprehensive integration of G.R. Terry's management functions (planning, organizing, actuating, and controlling) with digital media implementation in Islamic Religious Education at public elementary schools. Unlike previous studies that examined digital media or instructional management independently, this research proposes an integrated instructional management framework that explains how systematic management practices optimize digital media utilization to increase students' learning interest. In addition, by employing a comparative cross-case study involving two schools with different institutional characteristics, this research contributes new empirical evidence regarding contextual factors affecting the successful implementation of digital media-based Islamic Religious Education. Therefore, this study offers both theoretical contributions to the development of educational management literature and practical contributions for school leaders and teachers seeking to improve digital-based Islamic Religious Education learning.

Methods

This study employed a qualitative research approach using a descriptive multiple-case study design. A qualitative approach was selected because the study aimed to obtain an in-depth understanding of the implementation of digital media-based Islamic Religious Education (IRE) learning management within its real-life context. The multiple-case study design was chosen because the research involved two public elementary schools with

different institutional characteristics, allowing comparisons across cases to identify similarities, differences, and contextual factors influencing learning management. This design also enabled a comprehensive analysis of the implementation of G.R. Terry's management functions—planning, organizing, actuating, and controlling—in digital media-based IRE learning.

The research was conducted at SDN Tanjung Harapan in Cianjur Regency and SDN Sriwidari in Sukabumi City during the first semester of the 2025/2026 academic year. These schools were purposively selected because both have implemented digital media in Islamic Religious Education while differing in terms of accreditation, technological infrastructure, teacher readiness, and school management practices. These contrasting characteristics provide an appropriate basis for cross-case comparison and contribute to a richer understanding of digital media-based learning management. Data collection was conducted over several months through classroom observations, interviews, document analysis, and data verification.

The participants consisted of school principals, fifth-grade Islamic Religious Education teachers, and fifth-grade students from both schools. School principals were selected because they are responsible for educational policy and academic supervision, while teachers were chosen because they directly plan and implement digital media-based instruction. Students participated to provide information regarding their learning experiences, engagement, and interest during classroom activities. Participants were selected using purposive sampling based on their direct involvement and relevance to the research objectives (Darmalaksana, 2020).

Data were collected through semi-structured interviews, non-participant classroom observations, and document analysis. Semi-structured interviews explored participants' experiences regarding the planning, organizing, implementation, and supervision of digital media-based learning. Classroom observations focused on teacher practices, students' participation, and the utilization of digital learning media during instructional activities. Document analysis included lesson plans, teaching modules, learning media, assessment instruments, and other supporting documents to strengthen and triangulate the research findings (Sholihah, 2020).

Data were analyzed using the interactive qualitative data analysis model proposed by (Miles et al., 2014), which consists of data condensation, data display, and conclusion drawing/verification. Data condensation involved selecting, simplifying, focusing, and organizing the collected data according to the research objectives. The condensed data were then systematically displayed in descriptive narratives and comparison matrices to facilitate interpretation. Finally, conclusions were continuously drawn and verified throughout the research process to ensure consistency between the findings and the empirical evidence. A cross-case analysis was subsequently conducted to compare the implementation of digital media-based Islamic Religious Education learning management in both schools and identify common patterns, distinctive characteristics, and best practices (MAHARANTI, 2022).

To ensure the trustworthiness of the findings, this study applied the qualitative research criteria of credibility, transferability, dependability, and confirmability. Credibility was established through source triangulation, methodological triangulation, prolonged engagement, and member checking with selected participants. Transferability was achieved by providing detailed descriptions of the research setting and participants. Dependability was maintained through an audit trail documenting every stage of the research process, while confirmability was ensured by maintaining objectivity and demonstrating that all findings were grounded in empirical field data rather than researcher bias.

Result

The results of this study were obtained through in-depth interviews, classroom observations, and document analysis at SDN Tanjung Harapan in Cianjur Regency and SDN Sriwidari in Sukabumi City. The findings are presented based on the functions of instructional management—namely planning, organizing, implementing, and monitoring—as well as their impact on increasing fifth-grade students' interest in digital media-based Islamic Religious Education (IRE) lessons.

During the planning stage, both schools integrated digital media into the development of instructional materials. At SDN Tanjung Harapan, the PAI teacher developed instructional modules that included the use of interactive presentations, educational videos, and digital quiz applications as part of the learning strategy.

Table1. Components and Specifications of the Digital Media-Based Islamic Religious Education (IRE) Learning Module

Module Component	Instructional Development Specification
Module Identity	Contains the school name, Islamic Education (PAI) subject, grade/semester, learning material, and time allocation.
Learning Objectives	Developed based on learning outcomes and competency indicators to be achieved by students.
Learning Materials	Materials are presented concisely, systematically, and integrated with the use of digital media.
Digital Media	Utilizes interactive presentations (PowerPoint/Canva), educational videos, and digital quiz applications such as Quizizz or Kahoot.
Learning Procedures	Includes introductory, core, and closing activities integrated with the use of digital media.
Student Activities	Students are directed to observe videos, participate in discussions, answer digital quizzes, and present their understanding.
Learning Strategies	Applies a student-centered learning approach and technology-based interactive learning.
Learning Evaluation	Assessment is conducted through digital quizzes, observation of student participation, and individual/group assignments.
Classroom Management	Teachers prepare digital devices, internet connectivity, and organize student learning groups.
Reflection and Follow-up	Teachers evaluate the effectiveness of digital media and provide reinforcement of learning materials to students.

Planning was carried out from the stage of determining learning objectives, drafting the Learning Objective Sequence (ATP), to designing digital-based assessments. The principal provided guidance through a coordination meeting at the beginning of the school year to ensure teachers optimized the use of available digital facilities.

Meanwhile, at SDN Sriwidari, digital media-based lesson planning is carried out more systematically with the support of relatively more comprehensive resources. Islamic Education teachers design lessons by taking into account the visual and active learning styles of their students, so the selection of digital media focuses on the use of Islamic educational videos, animation-based presentation tools, and online assessment platforms. Observations indicate that digital devices such as LCD projectors and laptops were prepared before lessons began, demonstrating well-thought-out planning.

During the organizing stage, both schools carried out task allocation and resource management in a structured manner. At SDN Tanjung Harapan, the principal played a role in establishing policies for the use of digital facilities and scheduling the use of LCD projectors or IFP devices so that they could be used in rotation by each class. PAI teachers were responsible for managing classroom instruction, including organizing student learning groups to ensure the effective and interactive use of digital media.

At SDN Sriwidari, the organization of digital learning is supported by coordination among teachers and the use of classrooms equipped with supporting devices. The schedule for using digital facilities is systematically arranged to prevent overlapping use of resources. Observations show students collaborating in small groups during lessons, reflecting effective classroom organization in supporting digital media-based learning.

The implementation phase (actuating) demonstrates that digital media-based PAI learning is capable of creating a more active and enjoyable learning atmosphere. At SDN Tanjung Harapan, teachers use instructional videos about the stories of the prophets, multimedia presentations, and interactive quizzes to reinforce conceptual understanding. Students appear more enthusiastic, actively ask questions, and engage in discussions and digital quiz activities. Digital media is effective at capturing students' attention and reducing boredom during learning.

At SDN Sriwidari, classroom instruction demonstrates consistent use of digital media. Teachers combine interactive lectures with video presentations and visual simulations relevant to the Islamic Education curriculum. Students demonstrate positive responses in the form of increased attention, active participation, and curiosity regarding the material presented. Observation results also indicate that the classroom atmosphere is more conducive and interactive compared to conventional instruction.

The monitoring phase is carried out through the evaluation of learning outcomes and academic supervision by the principal. At SDN Tanjung Harapan, monitoring is conducted periodically through learning observations and joint reflections with teachers. Teachers also evaluate the effectiveness of digital media use based on student responses

and learning outcomes. If challenges are identified, adjustments are made to the selection of media or instructional strategies.

At SDN Sriwidari, supervision is carried out through scheduled supervision and digital-based evaluation. Teachers use app-based assessments to measure student understanding and analyze improvements in learning interest through indicators of student participation and engagement. Evaluation results show an increase in students' attention, enthusiasm, and active participation in digital media-based PAI learning.

Discussion

The findings demonstrate that the implementation of digital media-based Islamic Religious Education (IRE) learning management through the functions of planning, organizing, actuating, and controlling significantly enhances fifth-grade students' learning interest at SDN Tanjung Harapan and SDN Sriwidari. These findings reinforce G.R. Terry's management theory, which emphasizes that organizational effectiveness depends on the integration of planning, organizing, actuating, and controlling. In the educational context, the successful implementation of digital media requires not only technological resources but also systematic instructional management to ensure that learning objectives are achieved effectively (Maslow, 2023).

The planning stage showed that both schools integrated digital media into instructional modules, learning objectives, teaching materials, and assessment strategies. Teachers prepared instructional videos, interactive presentations, and digital assessment platforms before classroom instruction began, while school principals facilitated coordination through institutional policies supporting digital learning. These findings support Terry's planning function, which emphasizes determining objectives and selecting appropriate strategies before implementation. They also align with Mayer's Cognitive Theory of Multimedia Learning (Mayer, 2005), which argues that learning becomes more meaningful when verbal and visual information are systematically integrated. Recent studies further indicate that effective digital learning depends on careful instructional planning, teacher preparedness, and the alignment between digital technologies and learning objectives rather than merely introducing technology into classrooms (Burns et al., 2016).

The organizing function was reflected in the allocation of teacher responsibilities, classroom management, and scheduling the use of digital facilities. School principals coordinated the use of LCD projectors, interactive flat panels, and other digital resources, while teachers organized collaborative learning activities to maximize students' participation. These findings support Terry's organizing function, which emphasizes coordinating human and material resources to improve organizational effectiveness. Recent evidence likewise highlights that institutional support, collaborative teacher practices, and effective management of digital resources are fundamental prerequisites for successful technology integration in education (Robbins & Judge, 2009).

The implementation (actuating) stage demonstrated that digital media-based instruction created more active, interactive, and enjoyable classroom environments. Students actively participated in classroom discussions, responded enthusiastically to educational videos, and showed greater curiosity during interactive quiz activities (Slameto, 2012). These findings are consistent with Mayer's Cognitive Theory of Multimedia Learning, which explains that multimedia presentations enhance students' cognitive processing by combining visual and verbal information. Similar conclusions were reported by (Abdulrahman et al., 2020), while more recent systematic reviews also confirm that interactive digital learning environments improve behavioural, cognitive, emotional, and social engagement, leading to stronger learning motivation and participation.

The monitoring (controlling) stage was implemented through classroom supervision, evaluation of students' learning outcomes, and reflection on the effectiveness of digital media use. School principals regularly conducted academic supervision, while teachers evaluated students' participation and modified instructional strategies whenever obstacles were identified. These findings illustrate Terry's controlling function, which emphasizes continuous evaluation to ensure organizational goals are achieved efficiently. Recent studies also demonstrate that continuous monitoring and data-informed evaluation enable teachers to improve instructional quality, sustain student engagement, and make evidence-based pedagogical decisions throughout the learning process (Sung et al., 2016).

The cross-case analysis provides an important contribution to understanding the implementation of digital learning management. Although SDN Sriwidari possesses more complete technological facilities than SDN Tanjung Harapan, both schools demonstrated comparable improvements in students' learning interest because management functions were implemented consistently (Harini, 2018). This finding suggests that managerial quality is more influential than technological infrastructure alone. Previous studies have generally emphasized the effectiveness of digital media or learning technologies, whereas this research demonstrates that instructional management functions determine whether digital media can effectively improve students' engagement and learning interest (Tilaar & Mukhlis, 1999).

Overall, this study confirms that digital media-based learning management is not merely a technological innovation, but rather a systematic managerial strategy for enhancing students' interest in learning. Strengthening management functions serves as the primary foundation for ensuring that digital transformation in elementary schools does not stop at the use of devices but contributes tangibly to improving the quality of Islamic Religious Education. Thus, the integration of effective management and the utilization of digital media provides a strong argument in support of learning reform in the digital age.

Conclusion

Based on the research findings and discussion, it can be concluded that digital media-based Islamic Religious Education learning management, implemented through the systematic functions of planning, organizing, executing, and controlling, has proven effective in increasing the learning interest of fifth-grade students at SDN Tanjung Harapan in Cianjur Regency and SDN Sriwidari in Sukabumi City. The implementation of integrated management functions enables the use of digital media not only as a technical tool but as a learning strategy designed in a targeted and sustainable manner.

During the planning stage, the integration of digital media in the development of teaching modules, learning objectives, and digital-based assessments provides clear direction for the learning process. Effective organization through task allocation and the management of digital infrastructure ensures the optimal use of school resources. The implementation phase demonstrates that the use of educational videos, interactive presentations, and digital quiz applications can create an active, participatory, and enjoyable learning environment. Meanwhile, the monitoring phase, through academic supervision and digital-based evaluation, ensures the sustainability and improvement of learning quality.

The findings of this study confirm that an increase in students' interest in learning is not solely determined by the availability of technology, but rather by the quality of instructional management that is implemented consistently and systematically. Thus, the integration of effective management functions and the utilization of digital media is a key factor in improving the quality of Islamic Religious Education in elementary schools. This study also reinforces the relevance of management theory in the context of digital-based educational transformation and supports the implementation of national education policies that emphasize interactive and student-centered learning.

Declarations

Author contribution statement

The author made substantial contributions to all phases of this study, including the conceptualization of the research problem, data collection, data analysis, interpretation of findings, and the formulation of recommendations concerning digital media-based management of Islamic Religious Education learning to enhance students' learning interest in elementary schools.

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Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request. These data include field observations, interview transcripts, and relevant documentation regarding the implementation of digital media-

based learning management at SDN Tanjung Harapan in Cianjur Regency and SDN Sriwidari in Sukabumi City.

Declaration of interests statement

The author declares no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Additional information

The findings of this study lead to several important recommendations. First, educational institutions and school principals are encouraged to strengthen their roles as instructional leaders in developing and implementing digital media-based learning management systems. School policies should extend beyond the provision of infrastructure to encompass strategic planning, effective organization of resource utilization, technology-enhanced academic supervision, and continuous evaluation processes. Furthermore, schools are advised to establish standardized operating procedures (SOPs) governing the use of digital media to ensure systematic and sustainable implementation.

Second, Islamic Religious Education teachers are required to continuously improve their digital literacy and pedagogical competencies through professional development programs such as training sessions, workshops, and Teacher Working Group (KKG) activities. Teachers are expected to design and implement innovative, interactive, and student-centered learning experiences by effectively integrating digital media, as well as to engage in ongoing reflection and evaluation to enhance instructional effectiveness.

Third, government bodies and education policymakers should provide more comprehensive and concrete support to advance digital transformation in elementary education. Such support includes the provision of adequate digital infrastructure, equitable access to technological resources, continuous professional development for teachers, and systematic supervision of technology-integrated curriculum implementation, particularly within the Merdeka Curriculum framework. These efforts should be accompanied by rigorous monitoring and evaluation mechanisms to ensure meaningful and sustainable improvements in educational quality.

Fourth, school committees and parents are encouraged to establish strong collaboration in supporting the constructive and educational use of digital media. Parental involvement is essential in guiding and supervising children's use of technology at home, ensuring alignment with educational objectives and promoting a balanced digital learning environment.

Finally, future researchers are recommended to develop more practical and standardized models of digital media-based learning management and to examine their effectiveness using quantitative or mixed-method approaches. Further research may also explore additional variables, such as the impact of digital learning management on academic achievement, students' religious character development, and the acquisition of 21st-century competencies.

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