

Digital Learning Management as a Catalyst for Quality Education

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Abstract: This study aims to analyze the implementation of digital learning management specifically its planning, implementation, and evaluation in improving learning quality at MAN 3 Palembang. Employing a qualitative approach with a case study design, the research involved subjects including the head of the madrasah, curriculum vice principal, teachers, IT operators, students, supervisors, and parents. Data were collected through in-depth interviews, participatory observation, and documentation studies, analyzed using an interactive model with triangulation for validity. The findings reveal that digital learning management has been implemented systematically. Planning involves digital-based lesson design and strengthening teachers' digital competencies, supported by adequate infrastructure. Implementation utilizes Learning Management Systems (LMS), Google Classroom, interactive digital media, and technology-based assessments. Evaluation comprises formative and summative assessments, serving as a foundation for continuous improvement. The novelty of this study lies in its comprehensive, multi-stakeholder perspective on digital learning management within an Indonesian madrasah context, moving beyond mere technological availability to examine holistic management processes. Practically, it provides a replicable framework for educational institutions seeking to enhance learning quality through structured digital integration. The study contributes to educational management literature by offering empirical evidence that systematic digital learning management encompassing planning, implementation, and evaluation positively impacts learning quality in secondary Islamic education settings.

Keywords: Digital Learning Management, Digital Madrasah, Educational Management, Learning Quality

A. Introduction

Digital transformation in education has become a national strategic agenda in the era of Industrial Revolution 4.0 and Society 5.0 (Rohayati & Abdillah, 2024). The digitalization of education is no longer viewed merely as an innovation but rather as a fundamental necessity to ensure the learning process can adapt to technological developments and the demands of 21st-century competencies. In line with this, the Ministry of Religious Affairs of the Republic of Indonesia emphasizes that the

digitalization of madrasahs is part of the roadmap for strengthening the quality of Islamic education. The digitalization of madrasahs is a systemic step towards building a modern, technology-based learning ecosystem integrated with improving the quality of learning processes and outcomes (Hamdanah, 2025; Maskin et al., 2025). Strengthening technology-based learning is also stipulated in the Decree of the Minister of Religious Affairs (KMA) Number 184 of 2019 concerning Guidelines for Curriculum Implementation in Madrasahs. This regulation emphasizes that the use of information and communication technology (ICT) in learning aims to improve learning effectiveness, classroom management efficiency, and student learning outcomes. Teachers are required to possess digital competencies in designing technology-based learning, utilizing digital media and platforms, and developing meaningful learning interactions and collaborations. Althubyani (2024) and Rasdiana et al. (2024) emphasized that teachers' digital competence is a key factor in the success of technology-based learning because it enables teachers to design lessons that are more engaging, interactive, and relevant to students' needs.

However, the implementation of digital learning in madrasahs is not only related to the availability of technological devices but also to the overall learning management system (Sudrajat et al., 2024). Digital learning will have a significant impact on learning quality if supported by structured learning management, encompassing planning, implementation, and evaluation (Blieck et al., 2020; Koh & Kan, 2021). Therefore, the success of digital transformation in learning is largely determined by how technology is effectively managed to support the achievement of learning objectives. In the context of Palembang City, MAN 3 Palembang is one madrasah that demonstrates a strong commitment to digital learning transformation. Since being designated a digital madrasah on October 15, 2024, MAN 3 Palembang has begun developing a technology-based learning ecosystem through the use of a learning management system (LMS), Google Classroom, the Safe Browser application for evaluation, and the use of interactive digital media in the learning process. These efforts align with the views of Purnomo et al. (2024) and Faiz et al. (2025), who stated that digital transformation in education focuses not only on the use of technological devices but also encompasses comprehensive changes to the learning system through digital-based planning, implementation, and evaluation.

The use of technology in learning is fundamentally aimed at improving the quality of learning. Noor et al. (2022) found that the use of multimedia and digital platforms can increase student learning motivation, active participation, and conceptual understanding when managed effectively. Therefore, digital learning should not be positioned as a mere trend, but rather as a pedagogical strategy that significantly contributes to improving the quality of learning processes and outcomes. However, a literature review shows that most previous research focuses on aspects of technology integration or general learning innovation, while studies examining the comprehensive management of digital learning including planning, implementation, and evaluation are relatively limited (Hu & Raman, 2024; Luo et al., 2024). This

situation demonstrates the need for research that can provide an in-depth description of how digital learning is managed as a strategy to improve the quality of learning in educational institutions.

The selection of MAN 3 Palembang as the research location was based on the results of pre-interviews and initial observations conducted by the researcher. Pre-interviews with madrasah officials and teachers, as well as observations of the learning process, indicate that MAN 3 Palembang has implemented digital learning effectively in daily learning activities. Digital learning at this madrasah is supported by the availability of facilities and infrastructure, teachers' readiness to utilize learning technology, and madrasah policies that encourage the use of digital technology as part of a strategy to improve learning quality. Furthermore, MAN 3 Palembang is already in the implementation stage of digital learning, not just the planning stage. This situation makes MAN 3 Palembang a relevant and representative research location for examining digital learning management practices in a contextual and real-world setting. These characteristics allow the researcher to obtain in-depth data regarding how digital learning is planned, implemented, and evaluated in an effort to improve learning quality. Based on this description, this research is deemed crucial for providing a deeper understanding of the implementation of digital learning management at MAN 3 Palembang, from planning to implementation to evaluation, and its contribution to improving learning quality. Therefore, this study is entitled "Digital Learning Management as a Catalyst for Quality Education".

B. Methods

This research uses a qualitative approach to gain a deeper understanding of the digital learning management process in improving the quality of learning at MAN 3 Palembang. The research method used is a case study, as it focuses on a specific case study. This research will be conducted at Madrasah Aliyah Negeri (MAN) 3 Palembang, which is under the auspices of the Ministry of Religious Affairs in Palembang City. MAN 3 Palembang was selected based on its status as a madrasah that has implemented a digital learning system and was officially designated as a digital madrasah since its inauguration on October 15, 2024. This location is considered relevant for describing the implementation of digital learning management in madrasahs as part of the Ministry of Religious Affairs' priority programs. The research will be conducted from July to September 2025, covering the preparation phase, data collection, analysis, and report preparation. Several data collection techniques will be used in this study. Primary data will be obtained through in-depth interviews with key informants directly involved in digital learning management. Additional data will be obtained through documentation of various madrasah policies and programs, as well as field observations, to gain a more concrete picture of digital learning implementation at MAN 3 Palembang.

The research object is the implementation of digital learning management to improve the quality of learning at MAN 3 Palembang, including the planning, implementation, and evaluation processes of digital learning. Informants were selected using purposive sampling, a deliberate selection of informants based on their understanding of and direct involvement in digital learning management. Informants in this study included the madrasah principal, the vice principal for curriculum, subject teachers, madrasah operators/information technology teams, students, madrasah supervisors (representatives of the Ministry of Religious Affairs), and parents. The data in this study consisted of primary and secondary data obtained through in-depth interviews, direct observation, and documentation studies. Primary data was obtained directly from key informants involved in the implementation of digital learning management, such as the madrasah principal, the vice principal for curriculum, subject teachers, Information Technology (ICT) operators, and students. Secondary data consisted of official madrasah documents, technology use reports, policies related to digital learning, and records of the madrasah digitalization program implementation.

The research instruments used in this study were interview guidelines, observation sheets, and documentation. The interview guidelines were developed based on the research focus and sub-focus, which included planning, implementation, and evaluation of digital learning management and its contribution to improving learning quality. This study employed several techniques to validate the data to ensure scientific accountability. The data validation techniques employed refer to Moleong (2021), including triangulation, member checking, and audit trails. Triangulation utilized multiple data sources, data collection techniques, and timescales to obtain consistent and in-depth data. Furthermore, the researcher reconfirmed the findings with informants (member checking) to ensure the accuracy of the collected data. Data analysis in this study employed the interactive model analysis technique (Sugiyono, 2022). This technique was chosen because it aligns with the nature of qualitative research, which emphasizes the process of deeply understanding the meaning of phenomena. The stages of data analysis included data reduction, data presentation, conclusion drawing, and verification.

C. Results and Discussion

The discussion in this study aims to interpret the research findings by linking them to the theoretical foundation and previous research presented in Chapter II. The discussion focuses on the implementation of digital learning management to improve the quality of learning at MAN 3 Palembang, encompassing the planning, implementation, and evaluation aspects of digital learning.

Digital Learning Management Planning to Improve Learning Quality

The results of this study indicate that digital learning management planning at MAN 3 Palembang is structured and integrated into madrasah policies. This planning

includes establishing a digital learning vision, developing technology-based learning programs, planning the use of a learning management system (LMS), and developing teacher competencies and student readiness. These findings align with the digital learning management theory proposed by Adri et al. (2021), which states that digital learning management must begin with thorough planning so that technology utilization can be effective and contribute to improving the quality of learning. Furthermore, Haddade et al. (2024) emphasizes that systematic planning is the main foundation for the successful implementation of digital learning in madrasahs. Digital learning planning at MAN 3 Palembang is not only administrative but also considers pedagogical aspects. Teachers are directed to develop digital learning tools, select appropriate media and methods, and design technology-based learning evaluations. This demonstrates that digital learning planning is geared toward improving the quality of the learning process, not simply utilizing technology as an aid.

Implementation of Digital Learning and Its Impact on Learning Quality

Based on research results, the implementation of digital learning at MAN 3 Palembang has proceeded according to established planning. Teachers utilize various digital learning platforms managed by the madrasah, including the Jelajah Ilmu Learning Management System (LMS), E-Learning MAN 3 Palembang (kelasdigital.man3plg.sch.id), SI AMAN (Anti-Cheating Madrasah Assessment System), and other interactive learning media. These digital platforms are used to deliver learning materials, manage student assignments, facilitate learning interactions, and implement digital-based learning evaluations in a more structured, objective, and documented manner. These findings support the opinion Ullah & Anwar (2020) that the use of digital technology in learning can increase student engagement and participation when managed effectively. The use of digital media and learning platforms at MAN 3 Palembang has been shown to encourage students to be more active, independent, and responsible in the learning process. Furthermore, the implementation of digital learning is also supported by the readiness of facilities and infrastructure and the digital competence of teachers. This aligns with the opinion of Dahri et al. (2023), who emphasized that teachers' digital competence is a key factor in the success of technology-based learning. With adequate infrastructure and equipment support, digital learning at MAN 3 Palembang can run consistently and sustainably.

Digital Learning Evaluation as an Effort to Improve Learning Quality

Digital learning evaluation at MAN 3 Palembang plays a strategic role in determining the sustainability of digital learning implementation. Evaluation is understood not only as a process of assessing student learning outcomes but also as a decision-making instrument in managing digital learning at the madrasah.

Based on the results of formative and summative evaluations, digital learning at MAN 3 Palembang has been proven to improve the quality of learning. This is evident in the increased student engagement in learning, the effectiveness of teacher delivery, and the ease with which students can access learning resources. These findings align with Singh's et al. (2023) opinion, which states that digital learning will improve learning quality if systematically managed and evaluated. The evaluation results formed the basis for the decision that digital learning at MAN 3 Palembang should be continued and developed sustainably. The evaluation did not reveal any fundamental obstacles requiring the discontinuation of digital learning but rather indicated the need for improvements in planning and implementation to optimize digital learning implementation. Follow-up actions based on the evaluation results included improving teachers' digital competencies, strengthening technology-based learning monitoring, and refining digital learning tools. Therefore, digital learning evaluation at MAN 3 Palembang serves as a continuous control and improvement mechanism that supports the successful implementation of digital learning in improving learning quality.

Contribution of Digital Learning Management to Improving Learning Quality

Overall, the research results indicate that the implementation of digital learning management at MAN 3 Palembang has made a positive contribution to improving learning quality. Digital learning management, which encompasses integrated planning, implementation, and evaluation, enables learning to be more effective, structured, and adaptive. These findings support the opinion (Sousa et al., 2022) that digital learning can improve learning quality if managed systematically and sustainably. Furthermore, the results of this study also support the findings (Lisa et al., 2025) that the use of technology and multimedia in learning can increase student motivation, engagement, and learning outcomes. Furthermore, the successful implementation of digital learning management at MAN 3 Palembang is inseparable from the leadership role of the principal and the competence of human resources. This aligns with the view of Niță & Guțu (2023), which asserts that the performance of educational organizations is greatly influenced by leadership capable of directing, motivating, and developing employee competencies to meet the demands of change, including digital transformation.

Supportive leadership, effective communication, and support for teacher competency development have been proven to strengthen teachers' readiness to adapt to digital learning, thus directly impacting the quality of the learning process and student learning outcomes (Mushadi et al., 2025; Siregar & Siregar, 2024). Thus, the management of digital learning at MAN 3 Palembang not only improves the quality of the learning process but also contributes to the more optimal achievement of learning objectives. The implementation of well-managed digital learning is a crucial strategy for improving the quality of learning in madrasahs.

D. Conclusion

Based on the research findings, it can be concluded that the implementation of digital learning management at MAN 3 Palembang has been carried out through a systematic and integrated approach that positively contributes to improving learning quality. The key finding reveals a comprehensive management framework encompassing three essential stages: planning, implementation, and evaluation. Planning is structured and aligned with the Ministry of Religious Affairs' Madrasah Digitalization Program, establishing a clear digital learning vision, developing digital-based programs and tools, planning teacher competency development, and preparing necessary infrastructure. Implementation is consistent and adaptive, with teachers utilizing various digital platforms including learning management systems, madrasah e-learning, and interactive media. This has diversified learning methods, strengthened teacher-student interaction, and enhanced student engagement and independence. Evaluation is conducted systematically and continuously through formative and summative assessments, confirming that digital learning is running effectively and worthy of sustained development while identifying areas for improvement. The practical implication of this study is that a well-managed digital learning framework serves as an effective strategy for enhancing educational quality in madrasah settings. The improvement is evident both in process indicators increased student participation, motivation, and engagement and outcome indicators enhanced student understanding of learning materials. This model demonstrates that when digital learning is grounded in clear institutional policy, supported by adequate infrastructure and teacher competency development, and subjected to continuous evaluation, it can transform the learning experience. Educational institutions seeking to implement or strengthen digital learning should adopt this holistic approach, ensuring that technology integration is not merely about providing devices but encompasses pedagogical adaptation, stakeholder preparation, and systematic quality monitoring. Future research should investigate the long-term impact of digital learning management on student achievement across different subject areas and grade levels. Comparative studies examining the effectiveness of various digital platforms and tools in promoting specific learning outcomes would provide valuable guidance for resource allocation. Additionally, research exploring teacher digital competence development models and their relationship to implementation quality could inform professional development programs. Finally, investigating student perspectives on digital learning experiences and their correlation with engagement and independence would enrich understanding of how digital approaches can be optimized for diverse learner needs.

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