

Digital Media Integration in Cultural Arts Learning: A Case Study of a Digital Madrasah in Indonesia

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Abstract: This qualitative study explores the integration of digital media in Cultural Arts learning at MAN 3 Palembang, a designated digital madrasah in Indonesia. Through observations, interviews, and document analysis involving 29 students and teachers, the research examines how tools like Canva, CapCut, and Quizizz enhance student creativity, engagement, and learning outcomes. Findings reveal that while digital tools foster motivation and collaboration, challenges such as internet access and digital literacy gaps persist. The novelty of this research lies in its exploration of digital transformation within an Islamic educational context, emphasizing the integration of technology with cultural and artistic values. Practically, the findings provide a model for implementing digital learning in art-based subjects that align with the vision of Madrasah Smart Digital. The study contributes to the TPACK and SAMR frameworks by demonstrating their applicability in Islamic arts education, offering a model for technology integration in culturally responsive pedagogy.

Keywords: Cultural Arts Learning, Digital Media, Madrasah Digital, Student Creativity, Technology Integration

A. Introduction

In the era of digital transformation, schools are required to continually adapt by embedding technology into curriculum design, instructional strategies, and assessment practices so that learning becomes more meaningful, interactive, and relevant to the skills demanded in the 21st century (Schleicher, 2024). In the Indonesian context, education is expected to develop students' full potential and prepare them to compete at the global level, as mandated in the National Education System Law. Therefore, the integration of Information and Communication Technology (ICT) in learning has become a necessity rather than simply an alternative in efforts to improve the quality of instructional processes and outcomes. Cultural Arts as a subject has distinctive characteristics because it simultaneously engages students' cognitive, affective, and psychomotor domains. However, in practice, Cultural Arts learning is often still dominated by conventional, teacher-centered approaches, with limited use of contextual and interactive learning media. This condition contributes to low student motivation, limited participation, and reduced

opportunities for creative expression (Nengsih & Dilfa, 2025). Previous studies also show that monotonous learning methods and limited learning resources negatively affect students' understanding, particularly in practical artistic activities (Nkomo et al., 2021). These conditions indicate the need for instructional innovation through the use of digital media to stimulate creativity, increase engagement, and visualize abstract artistic concepts.

The utilization of digital media in Cultural Arts learning has been proven to provide positive contributions to instructional quality. Widowati, (2023) showed that the use of Canva increased students' enthusiasm, participation, and understanding of design concepts, while (Widiyastuti & Yuliasuti, 2022) found that smartphones and digital applications contribute significantly to the development of students' artistic competencies. These findings indicate that digital media function not only as instructional tools, but also as instruments of pedagogical transformation that support active, creative, and collaborative learning. However, most previous studies mainly highlight the advantages of digital learning in general subjects such as science, language, and social studies, and rarely discuss in detail how teachers design, implement, and manage digital-based Cultural Arts learning at the senior high school level. As a result, empirical explanations about classroom practices, student responses, and obstacles encountered remain limited.

In the context of Islamic education, this topic becomes even more relevant. State Islamic Senior High School (Madrasah Aliyah Negeri/MAN) 3 Palembang is one of the institutions designated as a digital madrasah, providing opportunities to integrate technology into the learning process. Nevertheless, preliminary observations show that the implementation of digital media has not yet been optimal. Facilities such as LCD projectors and internet access are available, but only a limited number of teachers utilize them consistently. Some teachers still experience constraints in digital literacy and have not systematically adopted technology-based learning models. This finding is in line with Agustini who reported that although ICT has been used at MAN 3 Palembang, its implementation tends to be uneven and sporadic. Digital transformation in madrasahs also involves unique cultural and religious considerations that may differ from regular public schools, thus requiring appropriate strategies for integrating technology with educational values.

The state of the art of this study lies in examining the implementation of digital media in Cultural Arts learning by combining pedagogical perspectives such as TPACK and SAMR with the specific context of a digital madrasah environment. Unlike previous research that mainly focuses on the benefits of digital media, this study also explores students' responses, the challenges faced, and the strategies used to sustain technology integration. The novelty of this research lies in its focus on digital transformation in an Islamic educational setting, where technology is integrated with cultural values, character development, and artistic expression.

Practically, this study contributes as a reference for teachers and schools in developing effective, interactive, and contextual digital-based Cultural Arts learning. Theoretically, the findings enrich discussions in educational management and digital pedagogy, particularly regarding the role of leadership, teacher competence, and infrastructure in technology implementation. Based on these gaps, the study seeks to answer the following research questions: (1) How is digital media implemented in Cultural Arts learning at MAN 3 Palembang? (2) How do students respond to digital-based Cultural Arts learning? and (3) What challenges and solutions arise during the implementation process? This study is expected to contribute to the development of theory and practice in technology-based education and to serve as a reference for educational institutions in optimizing digital learning in the era of educational transformation.

B. Methods

This study employed a descriptive qualitative approach aimed at providing an in-depth description of the implementation of digital media in Cultural Arts learning at MAN 3 Palembang as a digital madrasah. The qualitative approach was selected because it enables the exploration of meanings, perceptions, and experiences of the research participants in a natural and contextual manner (Hall & Liebenberg, 2024). Through this approach, the researcher sought to understand educational phenomena not merely from observable outcomes, but also from the processes involved, thereby obtaining a comprehensive understanding of digital-based learning practices in the madrasah context (Ponce et al., 2022). The research was conducted at State Islamic Senior High School (Madrasah Aliyah Negeri/ MAN) 3 Palembang, located on Inspector Marzuki Street, Siring Agung Sub-district, Ilir Barat I District, Palembang City, South Sumatra, Indonesia. The study was carried out from June to October 2025, encompassing the stages of preparation, data collection, data analysis, and report writing. This site was selected because MAN 3 Palembang has been designated as a digital madrasah with adequate information technology infrastructure; however, the implementation of digital media in classroom learning has not yet been fully optimized. The research subjects were determined using purposive sampling, which involves selecting informants based on specific criteria relevant to the research focus (Campbell et al., 2020). The informants included the Principal, the Head of Administration, Vice Principals for Curriculum and Facilities and Infrastructure, the Cultural Arts teacher, and students of class XI.2, totaling 29 students consisting of 17 female and 12 male students. These participants were selected because they were directly involved in digital media-based Cultural Arts learning and were therefore able to provide relevant and in-depth information regarding the phenomena under investigation.

The data collected in this study consisted of primary and secondary data. Primary data were obtained through in-depth interviews, observations, and documentation involving teachers and students who participated in Cultural Arts learning activities.

Meanwhile, secondary data were collected from various supporting documents, including the Annual Program, Semester Program, Learning Outcomes, Learning Objectives Flow, as well as teaching modules used in the teaching and learning process. The main data sources in this study were the words and actions of the informants, while documents, photographs, and instructional archives were utilized as supporting data.

Data collection techniques in this study were conducted through three main methods: observation, interviews, and documentation. Observation was carried out directly to examine the implementation of digital media-based Cultural Arts learning in the classroom, including how teachers utilized applications such as Canva and YouTube and how students responded to these learning activities. In-depth interviews were conducted with teachers, the principal, and students to obtain information regarding their perceptions, experiences, challenges, and strategies related to the use of digital media in learning. Documentation was employed to collect supporting data in the form of activity photographs, instructional materials, and students' works produced through digital media.

To ensure data trustworthiness, this study applied triangulation techniques, including source triangulation, method triangulation, and time triangulation (Ponce et al., 2022). Source triangulation was conducted by comparing information obtained from various informants, such as teachers, students, and the principal. Method triangulation involved cross-checking data derived from interviews, observations, and documentation. Meanwhile, time triangulation was carried out by collecting data at different points in time to examine the consistency of the findings. In addition, the four criteria of trustworthiness proposed by (Ahmed, 2024) credibility, transferability, dependability, and confirmability were also applied to ensure that the research findings are reliable and can be scientifically justified.

Data analysis was conducted interactively and continuously from the beginning to the end of the study by following the Miles and Huberman model as cited in (Ponce et al., 2022). The stages of analysis included data reduction, data display, and conclusion drawing and verification. Data reduction was carried out by selecting, focusing, and simplifying relevant data in accordance with the research focus. Data display was presented in the form of systematic narrative descriptions to facilitate understanding of the research findings. Subsequently, conclusions were drawn through interpretation and verification of the analyzed data to obtain in-depth insights into the implementation of digital media in Cultural Arts learning at MAN 3 Palembang as a digital madrasah.

C. Results and Discussion

This study aimed to describe the implementation of digital media in Cultural Arts learning at State Islamic Senior High School (Madrasah Aliyah Negeri/ MAN) 3

Palembang, as well as to analyze students' responses and the challenges encountered during its application. The findings indicate that the integration of digital media in learning has a significant impact on enhancing students' motivation, participation, and creativity. These results reinforce the view that technology-based learning has become a primary necessity in the 21st-century educational era, which demands critical, creative, collaborative, and communicative skills (Yılmaz, 2021). Based on observations and interviews, the implementation of digital media at MAN 3 Palembang was carried out through the utilization of various applications, such as Canva, CapCut, Quizizz, and QR Code Generator. The Cultural Arts teacher designed the learning process to integrate digital media at every stage, starting with the presentation of Indonesian cultural videos as an introduction, conducting interactive discussions using Smart TVs, and continuing with the practical creation of digital works through Canva and CapCut. Students' works were then collected via Google Drive and presented in a classical classroom setting (Widiyastuti & Yuliastuti, 2022).

This implementation demonstrates that the teacher does not merely use technology as a supplementary tool, but integrates it as part of a pedagogical strategy aimed at developing students' creativity. This aligns with the TPACK (*Technological Pedagogical and Content Knowledge*) model, which emphasizes the importance of the synergy between technological, pedagogical, and content knowledge (Voithofer & Nelson, 2020). Furthermore, the use of digital media in arts learning also supports the SAMR model (*Substitution, Augmentation, Modification, Redefinition*), where technology has transformed from merely substituting conventional tools into an innovative medium that enables creative and collaborative learning (Wahyuni et al., 2020).

The findings of this study also support previous research by (Widowati, 2023) and (Widiyastuti & Yuliastuti, 2022) which indicated that the utilization of digital applications such as Canva can enhance students' interest, enthusiasm, and understanding of visual arts materials. Through activities such as designing posters and digital videos, students learn to express cultural ideas through visual media while simultaneously developing digital literacy skills relevant to the modern world. (Dwiyanti et al., 2024) further emphasize that technology-based arts learning not only enhances students' artistic skills but also fosters innovative character and adaptive abilities in response to technological advancements.

Thus, the implementation of digital media in Cultural Arts learning at MAN 3 Palembang has successfully applied the principles of humanistic and contextual technology-based learning. The teacher acts as a facilitator guiding the active learning process, while students take on the role of knowledge creators through digital media. These findings support the view of (Wahyuni & Fitria, 2023) that the success of digital transformation in schools is determined by teachers' creativity in managing technology as part of their instructional strategies (Cahyo et al., 2025).

The findings indicate that students responded very positively to the implementation

of digital media. They felt more interested and motivated because the learning activities were enjoyable and relevant to their technology-rich environment. The use of Canva and CapCut provided students with opportunities to express their creativity through visual and video projects. These activities fostered self-confidence while simultaneously enhancing their communication skills and systematic thinking. These results support the study by (Novela et al., 2024) which found that video-based media in arts learning can improve students' creativity, self-confidence, and critical thinking skills. These activities foster project-based learning experiences that require collaboration, communication, and problem-solving, as emphasized by (Yılmaz, 2021), who argue that hands-on experiences are a crucial component of constructivist learning. The use of Quizizz as a medium for reflection and evaluation further enhances the appeal of learning. Students actively participated in interactive quizzes that assessed their understanding of arts and cultural materials (Noviatami et al., 2024). This game-based evaluation model aligns with *Self-Determination* (Wahyuni & Styaningsih, 2023), which posits that learning motivation increases when students are granted autonomy and engaging learning experiences.

The findings of this study are consistent with research by (Fajriani & Hendra, 2024), which indicated that digital media can overcome boredom in arts learning and promote active student engagement. Furthermore, a study by (Nengsih & Dilfa, 2025) confirmed that digital-based learning can strengthen students' collaborative and communication skills (Xu et al., 2025). These findings reinforce the theory proposed by (Muhlis, 2024), which asserts that the use of digital media in learning can enhance students' emotional and cognitive engagement by providing more contextual and enjoyable learning experiences. Students at MAN 3 Palembang demonstrated the ability to work collaboratively in groups, provide feedback on each other's work, and build self-confidence in presenting their learning outcomes in front of the class.

Furthermore, several students expressed an interest in graphic design and videography after participating in this learning program. These findings indicate that digital media-based learning not only impacts short-term learning outcomes but also promotes the development of students' career orientation and professional interests for the future. This aligns with the perspective of (Dwiyanti et al., 2024), who assert that digital learning plays a role in nurturing creative potential and enhancing students' readiness to face a technology-driven workforce.

Although the implementation of digital media at MAN 3 Palembang has been carried out effectively, this study also identified several challenges that need to be addressed. The main obstacles encountered were limited digital devices and internet connectivity issues, particularly when multiple classes accessed the network simultaneously (Chen & Gao, 2025). These problems affected timely access to learning materials and the submission of students' work. However, teachers managed these challenges by providing learning materials in the form of QR Codes that could be accessed independently, as well as allocating additional time for students to complete their

assignments (Menrisal, 2022).

In addition to technical challenges, differences in digital literacy levels between teachers and students also posed obstacles. Not all teachers possess the same skills in operating digital applications, necessitating ongoing professional development. The madrasah addressed this issue through initiatives such as the MAN 3 Teacher Collaborative Learning Program (*Belajar Bersama Guru MAN 3/BURGO*) and the Si Pintar training by the Ministry of Religious Affairs, aimed at enhancing educators' digital competencies. These programs represent a tangible form of adaptive educational management, as explained by (Jannah & Atmojo, 2022) and (Eristi & Freedman, 2024). Another effort undertaken by the madrasah was to ensure the maintenance of digital learning facilities and infrastructure, such as Smart TVs, projectors, and Wi-Fi networks, to keep them functioning optimally. This strategy supports the findings of (Dwiyanti et al., 2024), which emphasize that sustainable technology management is a key factor in the successful implementation of digital learning. Consequently, the collaboration among teachers, students, and madrasah administrators in addressing technical and pedagogical challenges reflects a dynamic and innovation-oriented learning ecosystem. This aligns with (Sariakin et al., 2025), who state that the effectiveness of learning innovations greatly depends on managerial support and the readiness of adequate facilities.

Overall, the implementation of digital media in Cultural Arts learning at MAN 3 Palembang has demonstrated success in creating interactive, collaborative, and relevant learning experiences for the digital generation. This perspective reinforces the findings of (Potocnik & Pavel, 2024), who suggest that the integration of technology in arts education has the potential to expand students' artistic exploration and support the development of a creative, student-centered learning environment. The use of digital media not only enriches students' aesthetic experiences but also strengthens the madrasah's vision as a Smart Digital Madrasah capable of integrating local cultural values with technological advancement. This aligns with the findings of (Bustanul & Mu'id, 2024), which state that the integration of technology in learning serves as a fundamental foundation for building a modern educational ecosystem that is adaptive, creative, and sustainable.

D. Conclusion

This study affirms that the systematic integration of digital media into Cultural Arts education at MAN 3 Palembang has successfully fostered a more interactive, efficient, and student-centered learning environment. The key finding is that this transformation, utilizing tools like Canva, CapCut, and Quizizz, has enhanced educational quality by boosting student motivation, creativity, and collaborative competencies. Teachers have effectively transitioned into facilitators, guiding students to produce culturally inspired digital projects, thereby making learning more meaningful and aligned with 21st-century skills. The practical implication is clear: the

successful model at MAN 3 Palembang demonstrates that digital transformation in education is achievable with strategic planning, even amidst challenges like device limitations and uneven digital literacy. Other institutions can replicate this success by prioritizing visionary leadership, sustained teacher training, and adaptive technical support—such as QR-code-based materials—to bridge infrastructure gaps. The madrasah's experience underscores that technology, when pedagogically integrated, strengthens not only digital fluency but also cultural appreciation. For future research, it is recommended to conduct longitudinal studies to assess the long-term impact of this digital integration on student artistic competency and cultural identity. Additionally, comparative research across different madrasahs or public schools would be valuable to identify context-specific success factors and barriers. Further investigation into developing standardized frameworks for evaluating digital pedagogy in arts education would also support wider, evidence-based implementation. Ultimately, this case provides a foundational best-practice model, encouraging continued innovation at the intersection of technology, culture, and education.

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