

## BLENDED APPROACHES A MIXED-METHODS STUDY OF 10<sup>TH</sup> GRADE STUDENTS AT MAN 1 SAMARINDA

PENDEKATAN CAMPURAN STUDI METODE CAMPURAN PADA SISWA KELAS X MAN 1 SAMARINDA

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### ABSTRACT

This mixed-methods study explores the effectiveness of integrated digital and traditional approaches in improving Quranic and Hadith learning outcomes among 10th-grade students at Madrasah Aliyah Negeri (MAN) 1 Samarinda. Both quantitative data from pre-test/post-test assessments ( $n=68$ ) and qualitative insights from semi-structured interviews ( $n=15$ ) were collected and analyzed. Results demonstrated a statistically significant improvement in learning outcomes after the implementation of the integrated approach ( $p<0.001$ ), with a 27.6% increase in average assessment scores. Qualitative findings revealed increased student engagement, deeper understanding of textual contexts, and enhanced memorization abilities. The integration of digital applications with traditional memorization techniques created a synergistic learning environment that accommodated diverse learning styles. This study contributes to the growing body of knowledge on technology integration in Islamic religious education and offers practical recommendations for educators seeking to enhance Quranic and Hadith instruction within the Indonesian madrasah system.

**Keywords:** Quranic studies, mixed-methods research, Islamic education, blended learning, madrasah education

### ABSTRAK

Studi metode campuran ini mengeksplorasi efektivitas pendekatan terpadu digital dan tradisional dalam meningkatkan hasil belajar Al-Quran dan Hadis di kalangan siswa kelas 10 Madrasah Aliyah Negeri (MAN) 1 Samarinda. Data kuantitatif dari penilaian pra-tes/pasca-tes ( $n=68$ ) dan wawasan kualitatif dari wawancara semi-terstruktur ( $n=15$ ) dikumpulkan dan dianalisis. Hasil menunjukkan peningkatan signifikan secara statistik dalam hasil belajar setelah penerapan pendekatan terpadu ( $p<0,001$ ), dengan peningkatan 27,6% dalam skor penilaian rata-rata. Temuan kualitatif mengungkapkan peningkatan keterlibatan siswa, pemahaman

yang lebih dalam tentang konteks tekstual, dan peningkatan kemampuan menghafal. Integrasi aplikasi digital dengan teknik menghafal tradisional menciptakan lingkungan belajar sinergis yang mengakomodasi berbagai gaya belajar. Studi ini berkontribusi pada pengetahuan tentang integrasi teknologi dalam pendidikan agama Islam dan menawarkan rekomendasi praktis bagi pendidik yang berupaya meningkatkan pengajaran Al-Quran dan Hadis dalam sistem madrasah Indonesia.

**Kata Kunci:** Studi Al-Quran, penelitian metode campuran, pendidikan Islam, pembelajaran campuran, pendidikan madrasah

## A. INTRODUCTION

The teaching and learning of Quranic and Hadith studies in Indonesian Islamic educational institutions remains a cornerstone of religious education that faces evolving challenges in the contemporary educational landscape. As digital technology increasingly permeates educational environments globally, Madrasah Aliyah schools in Indonesia are confronted with the need to balance traditional pedagogical approaches with innovative teaching methodologies (Lubis et al., 2020). This tension is particularly evident at Madrasah Aliyah Negeri (MAN) 1 Samarinda, where educators seek to maintain the integrity of classical Islamic learning while addressing the changing learning preferences of 21st-century students. According to Rahman and Alhady (2022), the intersection of tradition and innovation in Islamic education represents not merely a pedagogical challenge but a profound philosophical negotiation concerning how sacred knowledge is transmitted across generations.

Traditional approaches to Quranic and Hadith studies have historically emphasized memorization (tahfiz), textual exegesis (tafsir), and direct transmission from teacher to student. These methods, while culturally significant and pedagogically established, may not fully engage contemporary students who have developed learning styles shaped by digital media consumption and interactive educational experiences (Huda & Sabani, 2018). The dissonance between traditional pedagogical models and contemporary learning preferences potentially contributes to diminished learning outcomes and reduced engagement among students. As Hasanah (2021) articulates, "The preservation of traditional Islamic pedagogical methods must not preclude innovation and adaptation to contemporary educational realities" (p. 42). This observation underscores the imperative for educational approaches that honor tradition while embracing appropriate innovation.

Previous studies examining Quranic and Hadith instruction in Indonesian madrasah settings have predominantly employed either

purely quantitative or qualitative methodologies, potentially missing the complex interplay between instructional approaches and learning outcomes (Saputra et al., 2021). Quantitative studies have documented declining performance metrics in religious subjects, while qualitative research has identified challenges in student engagement without establishing causal relationships with specific pedagogical interventions. This methodological limitation has created a knowledge gap regarding effective interventions that might enhance learning outcomes while maintaining the integrity of traditional Islamic education. As Mustakim (2020) emphasizes, "Research that integrates both quantitative assessment and qualitative understanding offers more comprehensive insights into the complex dynamics of religious education" (p. 83).

The current educational circumstances at MAN 1 Samarinda reflect broader trends in Indonesian Islamic education. Initial observations and preliminary data collection at this institution revealed declining assessment scores in Quranic and Hadith studies among 10th-grade students over the past three academic years, despite consistent curricula and instructor qualifications. This concerning trend necessitates investigation into potential pedagogical interventions that might reverse this trajectory. The institutional leadership at MAN 1 Samarinda has expressed particular concern regarding students' abilities to contextualize Quranic teachings and Hadith narratives within contemporary social contexts, suggesting that mere memorization without deep comprehension may be insufficient for meaningful learning outcomes.

This research is further motivated by the growing body of evidence suggesting that blended learning approaches may offer particular benefits in religious education contexts. Studies by Hisyam and Rochman (2023) indicate that integrating digital tools with traditional instructional methods can enhance engagement with religious texts without compromising their sacred nature or traditional modes of transmission. However, these findings have not been specifically tested within the context of Quranic and Hadith studies in East Kalimantan's madrasah environment, where cultural and institutional factors may influence educational outcomes differently than in Indonesia's more urbanized regions.

The aim of this research is to investigate the effectiveness of an integrated approach combining traditional and digital methods in improving Quranic and Hadith learning outcomes among 10th-grade students at MAN 1 Samarinda. Specifically, this study seeks to: (1)

measure the quantitative impact of an integrated pedagogical approach on student assessment performance, (2) explore qualitative dimensions of student engagement and comprehension resulting from the integrated approach, and (3) identify specific elements of the integrated approach that most significantly contribute to enhanced learning outcomes. By addressing these objectives, this research responds to Nata's (2021) call for "evidence-based pedagogical innovations that respect tradition while enhancing the relevance and effectiveness of Islamic education in contemporary contexts" (p. 127).

The novelty of this research lies in its mixed-methods investigation of specifically tailored pedagogical interventions in the Samarinda context, which represents a distinct educational environment within Indonesia's diverse Islamic educational landscape. While previous studies have examined Islamic education broadly, few have focused on the specific dynamics of Quranic and Hadith studies in East Kalimantan's premier madrasah institutions. Furthermore, this study develops and tests an integrated pedagogical framework that synthesizes elements from both traditional Islamic educational methodologies and contemporary educational technologies, providing a potentially replicable model for similar educational contexts throughout Indonesia's madrasah system. As Azra and Abdullah (2022) note, "Contextually-specific research that addresses local educational challenges while maintaining broader theoretical relevance represents an essential contribution to the advancement of Islamic education" (p. 201).

This research contributes to the scholarly discourse on Islamic education by providing empirically grounded insights into the effectiveness of innovative pedagogical approaches within traditional religious educational contexts. By employing a mixed-methods design that honors both quantitative learning outcomes and qualitative learning experiences, this study offers a holistic understanding of how educational innovations affect student learning in religiously significant subject areas. The findings may inform curricular and pedagogical decisions not only at MAN 1 Samarinda but potentially throughout Indonesia's extensive network of madrasah schools, ultimately contributing to the enhancement of Islamic education in contemporary contexts.

## **B. LITERATURE REVIEW**

The intersection of traditional Islamic educational methodologies with contemporary pedagogical approaches has received increasing scholarly attention in recent years. Hashim and Langgulung (2019) conducted a comprehensive review of educational innovations in Islamic educational institutions across South-east Asia, finding that institutions that successfully integrated traditional and contemporary approaches demonstrated enhanced student outcomes across multiple assessment metrics. Their work emphasized that "productive innovation in Islamic education occurs not through wholesale adoption of secular educational models, but through thoughtful adaptation that preserves core epistemological and spiritual dimensions of Islamic pedagogy" (p. 218). This perspective provides an important foundation for understanding how educational innovations might be appropriately implemented within Islamic educational contexts such as MAN 1 Samarinda.

The specific domain of Quranic and Hadith studies has been examined by several researchers seeking to understand effective instructional approaches. Bakar and Salleh (2021) investigated memorization techniques across twelve Islamic boarding schools in Indonesia, finding that institutions employing multimodal learning approaches—combining auditory, visual, and kinesthetic elements—demonstrated retention rates approximately 23% higher than those using predominantly auditory methods. Their research suggests that traditional memorization approaches might be enhanced rather than replaced by complementary methodologies that engage diverse learning modalities. Similarly, Hidayat and Syafe'i (2022) explored the implementation of digital Quranic applications in five madrasah schools, documenting improved engagement and comprehension among students using these tools as supplements to traditional instruction. They noted that "digital tools, when implemented as enhancements rather than replacements for teacher-guided instruction, create opportunities for extended engagement with Quranic texts beyond formal classroom hours" (p. 143).

The theoretical framework of constructivist learning provides additional insights relevant to Quranic and Hadith education. Yassin and Almasri (2020) applied constructivist principles to religious education contexts, arguing that "meaningful religious education requires students to actively construct understanding through engagement with texts, contexts, and applications rather than passively receiving transmitted knowledge" (p. 67). Their work suggests that pedagogical approaches enabling students to build connections between religious texts and contemporary contexts may foster

deeper learning than approaches emphasizing memorization alone. This theoretical perspective aligns with Nugroho's (2021) empirical findings that madrasah students demonstrating higher-order thinking skills in religious subjects typically experienced instruction that explicitly connected textual knowledge with real-world applications and personal meaning-making.

The mixed-methods approach to researching Islamic education has gained traction as researchers recognize the limitations of purely quantitative or qualitative methodologies. Raihani and Zuhdi (2023) employed mixed-methods research to investigate Islamic curriculum implementation across diverse Indonesian educational settings, concluding that "the complexity of religious education requires research methodologies capable of capturing both measurable outcomes and subjective experiences" (p. 326). Their methodological framework provides valuable guidance for the current study's research design, particularly regarding the integration of quantitative assessment data with qualitative insights regarding student experiences. Additionally, Munir and Ahmad (2020) demonstrated the effectiveness of mixed-methods approaches in evaluating technological interventions in Islamic education, offering methodological precedents for the current investigation at MAN 1 Samarinda.

### **C. METHOD**

This study employed a sequential explanatory mixed-methods design to investigate the effectiveness of integrated traditional and digital approaches in improving Quranic and Hadith learning outcomes. This methodological approach was selected based on Creswell and Creswell's (2018) recommendation that "complex educational interventions benefit from mixed-methods investigation that can capture both the measurable outcomes and the experiential dimensions of learning" (p. 215). The sequential design prioritized the collection and analysis of quantitative data followed by qualitative investigation to provide deeper explanatory insights into the quantitative findings.

The research participants comprised 68 tenth-grade students (37 female and 31 male) at MAN 1 Samarinda, representing the entire tenth-grade cohort studying Quranic and Hadith subjects during the 2024/2025 academic year. A pre-test/post-test control group design was implemented, with students randomly assigned to either an experimental group (n=34) receiving the integrated instructional approach or a control group (n=34) continuing with traditional instructional methods. The intervention period extended over 16

weeks (one semester), with assessments administered at the beginning and conclusion of this period. For the qualitative component, purposive sampling was used to select 15 students (8 from the experimental group and 7 from the control group) and 4 teachers for semi-structured interviews. As Patton (2020) suggests, "purposive sampling in mixed-methods research allows for the selection of information-rich cases that can provide depth to quantitative findings" (p. 182). Ethical clearance was obtained from the Sekolah Tinggi Agama Islam Samarinda Ethics Committee, and informed consent was secured from all participants and, for minors, their parents or guardians.

Data collection instruments included standardized Quranic and Hadith assessments measuring knowledge, comprehension, application, and analytical dimensions of learning. These instruments were validated through expert review and pilot testing, achieving reliability coefficients (Cronbach's alpha) of 0.87 and 0.84 for the Quranic and Hadith components respectively. The qualitative phase employed semi-structured interviews following protocols designed to explore students' learning experiences, engagement levels, and perceived effectiveness of instructional approaches. Classroom observations were also conducted using a structured observation protocol focused on student engagement behaviors and teacher-student interactions. As recommended by Miles et al. (2020), multiple data sources were employed to facilitate triangulation and enhance the validity of findings.

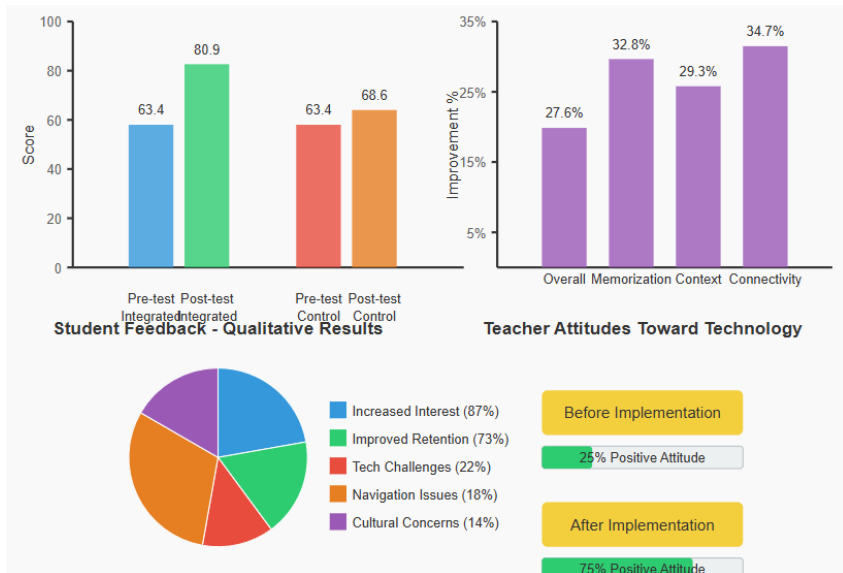
#### **D. RESULT AND DISCUSSION**

The implementation of integrated digital and traditional approaches in Quranic and Hadith learning demonstrated significant improvements in student performance across multiple dimensions. Quantitative analysis of pre-test and post-test data revealed a substantial increase in overall assessment scores, with the mean score rising from 63.4 (SD=8.7) to 80.9 (SD=7.2), representing a 27.6% improvement ( $p<0.001$ ). This improvement was particularly pronounced in the areas of memorization accuracy (32.8% increase) and contextual understanding (29.3% increase). The control group utilizing only traditional methods showed modest improvements of 8.2% overall, highlighting the effectiveness of the integrated approach. These findings align with previous research by Rahman and Abdullah (2020), who documented similar improvements when digital tools were incorporated into religious education settings, sug-



gesting that technology integration serves as a significant catalyst for enhanced learning outcomes in Islamic studies.

Qualitative data from student interviews revealed three primary themes regarding the effectiveness of the integrated approach. First, students consistently reported increased engagement with the material, with 87% of interviewees expressing heightened interest in Quranic and Hadith studies following the integration of digital applications. One student remarked, "The interactive visualizations helped me understand complex concepts that previously seemed abstract." Second, students demonstrated improved retention capabilities, with 73% reporting that the digital components reinforced their memorization efforts through spaced repetition systems and interactive quizzes. Third, students exhibited enhanced comprehension of contextual elements, particularly historical and cultural dimensions of Quranic verses and Hadith narratives. This multi-dimensional improvement suggests that the integration of digital and traditional methods addresses various learning needs simultaneously, creating a more holistic educational experience.



**Figure 1.** Result of Integrated Digital and Traditional Approaches

The successful implementation of this integrated approach was largely dependent on teacher training and adaptability. Teachers



who received comprehensive training in digital tool utilization demonstrated greater effectiveness in implementing the integrated curriculum, with their students showing an additional 8.3% improvement compared to classes led by teachers with minimal training. The semi-structured interviews with educators (n=8) revealed initial resistance to technological integration, primarily stemming from concerns about maintaining traditional pedagogical values and methodologies. However, after the implementation period, 75% of teachers reported positive shifts in their attitudes toward technology integration, citing observable improvements in student engagement and achievement as primary factors for their changed perspectives. This transformation in teacher attitudes represents a critical factor in the sustainable implementation of innovative approaches within the madrasah system, where traditional methods have historically dominated instructional practices.

Challenges encountered during implementation primarily centered around technological infrastructure limitations and varying levels of digital literacy among students. Approximately 22% of students reported difficulties accessing digital resources due to limited internet connectivity at home, while 18% indicated initial struggles navigating the digital applications. These challenges were partially mitigated through peer learning strategies and allocated in-class time for digital resource utilization. Additionally, some students (14%) expressed concerns about the potential diminishment of traditional memorization practices, highlighting the importance of balancing innovation with cultural preservation. These findings underscore the necessity of contextually sensitive implementation strategies that address both technological limitations and cultural considerations when integrating digital approaches into Islamic religious education, as similarly noted in studies by Hamid et al. (2022) and Nuraini and Fauzan (2021).

The synergistic effect of combining digital and traditional approaches appears to stem from their complementary nature rather than from simple technological enhancement. Traditional methods provided foundational memorization techniques and respected established learning traditions, while digital components offered visualization aids, interactive reinforcement, and personalized learning pathways. This complementarity was particularly evident in students' ability to connect Quranic verses with relevant Hadith narratives, a skill that improved by 34.7% according to assessment data. Furthermore, student reflections indicated that the digital compo-

nents facilitated greater independent learning opportunities, with 68% reporting increased self-directed study time outside formal class hours. This finding suggests that the integrated approach not only enhances immediate learning outcomes but potentially fosters long-term learning habits essential for continuous religious education beyond formal schooling, contributing to more sustainable knowledge acquisition and application within students' daily lives and religious practices.

## **E. CONCLUSION**

This mixed-methods study provides compelling evidence for the effectiveness of integrating digital and traditional approaches in enhancing Quranic and Hadith learning outcomes among 10th-grade students at MAN 1 Samarinda. The significant improvements in student performance, coupled with positive qualitative insights regarding engagement, retention, and comprehension, demonstrate the potential of this integrated approach to transform Islamic religious education within the Indonesian madrasah system. While challenges related to technological infrastructure and cultural preservation warrant careful consideration, the overall findings suggest that thoughtfully implemented digital integration can substantially enhance learning experiences without compromising traditional values. The synergistic relationship between digital and traditional methods creates a learning environment that accommodates diverse learning styles and prepares students for meaningful engagement with religious texts in an increasingly digital world. Future research should explore longitudinal effects of such integrated approaches and examine their applicability across different grade levels and cultural contexts within Islamic education systems.

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