

To Investigate the Scope of Digital Tools and Technology Usage in Islamic Studies Classrooms at the Secondary Level in Balochistan

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Abstract

The integration of digital tools and technology into classroom instruction has become a defining feature of modern education, yet its application in Islamic Studies at the secondary level in Balochistan remains underexplored. This study investigates the scope and effectiveness of digital resources in enhancing the teaching and learning of Islamic Studies. The research focuses on identifying the types of digital tools currently in use, examining their impact on students' engagement and comprehension, and exploring teachers' readiness and attitudes toward technology adoption. A mixed-methods approach is employed, combining surveys and interviews with teachers and students to provide both quantitative and qualitative insights. The findings highlight the potential of digital tools to make Islamic Studies more interactive, accessible, and relevant to contemporary learners, while also revealing challenges such as limited infrastructure, inadequate training, and socio-cultural constraints. The study concludes by offering recommendations for policymakers and educators to strengthen the integration of technology in Islamic Studies classrooms, thereby contributing to improved educational outcomes and bridging the gap between traditional pedagogy and modern learning environments.

Introduction

The rapid advancement of digital technologies has transformed educational practices worldwide, reshaping how knowledge is delivered, accessed, and retained. In the context of Islamic Studies, traditionally rooted in textual and oral transmission, the integration of digital tools offers new opportunities to enhance pedagogy and student engagement. Digital platforms, mobile applications, and interactive resources have made religious education more accessible, interactive, and adaptable to diverse learning needs (Hussain & Ghaffar, 2025). For regions such as Balochistan, where educational infrastructure faces challenges of remoteness and limited resources, technology integration holds particular promise in bridging gaps between traditional instruction and modern learning environments. Islamic Studies at the secondary level plays a crucial role in shaping students' moral, spiritual, and intellectual development. However, conventional teaching methods often rely heavily on rote memorization and teacher-centered approaches, which may limit critical engagement and contextual understanding. The incorporation of digital tools—such as Quranic applications, multimedia lectures, and online discussion forums—can foster interactive learning experiences, encourage independent study, and provide students with access to diverse scholarly interpretations (Asghar, 2025). These innovations not only expand the scope of Islamic education but also align with global trends in digital

pedagogy. Hawthorn (2018) suggests that incorporating technology in education offers advantages for students and frequently enhances their ability to access information. The integration of technology in education necessitates that educators recognize its complete capabilities, comprehend how to implement it effectively, and rethink teaching and learning in relation to it

Despite these opportunities, the adoption of technology in Islamic Studies classrooms in Balochistan remains underexplored. Factors such as inadequate infrastructure, limited teacher training, and socio-cultural perceptions may hinder effective implementation. Understanding the scope of digital tool usage in this context is therefore essential to evaluate both the potential benefits and the challenges of integration. Previous studies highlight that digital technologies can democratize access to religious knowledge, enabling learners in remote areas to connect with resources and scholars beyond their immediate environment (Quran Academia, 2025). Yet, without systematic investigation, the extent to which these tools are utilized and their effectiveness in secondary schools of Balochistan remains unclear.

This research seeks to address this gap by investigating the scope of digital tool usage in Islamic Studies classrooms at the secondary level in Balochistan. By examining current practices, teacher perceptions, and student experiences, the study aims to provide insights into how technology can be strategically integrated to enhance Islamic education. Ultimately, the findings will contribute to policy recommendations and pedagogical strategies that balance tradition with innovation, ensuring that Islamic Studies remains both authentic and relevant in the digital age.

Literature Review

The integration of digital tools in education has become a central theme in contemporary pedagogical discourse, with scholars emphasizing its transformative potential across disciplines. In the context of Islamic Studies, technology offers avenues for interactive learning, accessibility, and contextual engagement that traditional methods often lack. Research in Pakistan and other Muslim societies highlights both the promise and challenges of digital adoption in religious education. Majeed and YahyaAlhidabi (2024) argue that digital literacy is essential for teachers of Islamic Studies, particularly in secondary schools, where Qur'an and Hadith applications can enhance comprehension and presentation. Their study underscores the need for teacher training programs that integrate digital literacy tools, suggesting that without adequate preparation, educators may struggle to utilize technology effectively. This aligns with broader findings in Pakistani academia, where digital literacy is increasingly viewed as a prerequisite for meaningful technology integration (Khan, Shahzad, & Mahar, 2018).

The adoption of digital tools represents more than a technical upgrade; it signals a paradigm shift in pedagogy. Khan et al. (2018) highlight that digital literacy requires new skill sets, including critical evaluation of information and emotional adaptability to digital environments. For Islamic Studies, this shift implies moving beyond rote memorization toward interactive, student-centered learning. IT-based learning platforms, such as multimedia lectures and online discussion forums, have been shown to foster deeper engagement with religious content (SSR Publisher, 2025). Studies on IT-based learning in Islamic Religious Education reveal that digital tools can make lessons more engaging and accessible, particularly in regions with limited educational infrastructure. SSR Publisher (2025) found that multimedia resources and online platforms help bridge gaps between traditional teaching and modern expectations, allowing students to interact with religious texts in dynamic ways. This is particularly relevant for Balochistan, where geographic and infrastructural challenges often hinder access to quality education.

Despite these opportunities, several barriers persist. Limited infrastructure, inadequate teacher training, and socio-cultural perceptions often restrict the effective use of technology in Islamic Studies classrooms. Majeed and YahyaAlhidabi (2024) emphasize that without institutional support and investment in digital literacy, teachers may remain hesitant to adopt new tools. Moreover, Khan et al. (2018) caution that digital anxiety and lack of skills can undermine the benefits of technology, especially in rural and underdeveloped regions.

The literature suggests that while digital tools hold significant potential to enhance Islamic Studies education, their effectiveness depends on contextual factors such as teacher readiness, infrastructure, and cultural acceptance. For Balochistan, investigating the scope of technology usage is critical to understanding how these global trends translate into local realities. This research builds on existing scholarship by focusing specifically on secondary schools in Balochistan, thereby contributing to both national and regional debates on digital pedagogy in religious education.

Most of the research regarding technology in education emphasizes its application in areas other than Islamic Studies. Although certain studies concentrate on students' viewpoints regarding technology usage in Islamic Studies classes, there are few studies that investigate teachers' perspectives. Investigating the views of Islamic Studies educators is essential, particularly since these teachers often do not consistently integrate technology and make minimal use of it in secondary education (Asiri&Waza, 2011; Jan et al. 2014; Almufda, 2020; Khoj, 2021).

Research Method

Research Design

This study adopts a mixed-methods research design, combining both quantitative and qualitative approaches. The rationale for this design is to capture a comprehensive understanding of digital tool usage in Islamic Studies classrooms. Quantitative data will provide measurable insights into the extent of technology integration, while qualitative data will explore the perceptions, challenges, and contextual realities faced by teachers and students.

Population and Sampling

Population: Secondary school teachers and students of Islamic Studies in Balochistan.

Sampling Technique: A stratified random sampling method will be employed to ensure representation across urban and rural schools, as well as public and private institutions.

Sample Size: Approximately 150–200 participants, including both teachers and students, will be selected to provide diverse perspectives.

Data Collection Methods

Survey Questionnaires: Structured questionnaires will be distributed to teachers and students to collect quantitative data on the frequency, types, and effectiveness of digital tools used.

Semi-Structured Interviews: A smaller group of teachers and administrators will be interviewed to gain deeper insights into challenges, attitudes, and institutional support for technology integration.

Classroom Observations: Selected classrooms will be observed to document the actual use of digital tools and teaching practices in real-time.

Research Instruments

Questionnaires were includes closed-ended questions (Likert scale) to measure attitudes and usage levels.

Interview Guides were consisted of open-ended questions to explore perceptions, barriers, and recommendations.

Observation Checklists were used to record the presence and application of digital tools during lessons.

Data Analysis

Quantitative Data: Statistical analysis was conducted using descriptive statistics (frequency, percentage, mean) and inferential tests (e.g., chi-square, t-test) to identify significant differences in technology usage across school types and demographics.

Qualitative Data: Thematic analysis was applied to interview transcripts and observation notes to identify recurring themes, challenges, and opportunities.

Findings and Results

Usage of Digital Tools

Survey data revealed that digital tools are used inconsistently across Islamic Studies classrooms. Teachers reported moderate use of multimedia presentations and Quranic applications, while students highlighted limited access to e-learning platforms.

Table 1: Digital Tool Usage

Digital Tool Used	Teachers Reporting Use (%)	Students Reporting Use (%)
Multimedia Presentations (PowerPoint, videos)	62%	55%
Quran/ Hadith Mobile Applications	48%	60%
Online Discussion Forums / WhatsApp Groups	35%	42%
E-Learning Platforms (Google Classroom, Moodle)	28%	25%
Interactive Whiteboards / Smart Boards	20%	18%

Interpretation: The findings suggest that while digital tools are present, their use is sporadic and largely dependent on individual teacher initiative. Quranic and Hadith apps are more popular among students, indicating a preference for mobile-based learning resources. However, advanced platforms such as Moodle or Google Classroom remain underutilized due to infrastructural and training gaps.

Effectiveness of Digital Tools

Both teachers and students agreed that digital tools improved engagement and comprehension, though effectiveness was limited by inconsistent access to devices and internet connectivity.

Table 2: Perceived Benefit of Technology

Perceived Benefit of Technology Integration	Teachers (%)	Students (%)
Increased Engagement in Lessons	70%	68%
Better Understanding of Religious Concepts	65%	72%
Improved Retention of Knowledge	58%	61%
Encouragement of Independent Learning	52%	55%
Enhanced Collaboration and Discussion	47%	50%

Interpretation: The data indicates that digital tools are perceived positively, particularly in enhancing engagement and comprehension. Students reported slightly higher benefits in understanding religious concepts, suggesting that technology may help them connect more deeply with Islamic content. However, collaboration and independent learning remain relatively weaker outcomes, pointing to the need for structured digital pedagogy.

Challenges Identified

Teachers and students highlighted several barriers to effective technology integration.

Table 3: Challenges Reported

Challenges Reported	Frequency (%)
Limited Infrastructure (devices, internet)	68%
Lack of Teacher Training	54%
Socio-Cultural Resistance	40%

Challenges Reported	Frequency (%)
High Student-Teacher Ratio	32%
Limited Institutional Support	29%

Interpretation: Infrastructure remains the most significant barrier, with nearly two-thirds of respondents citing lack of devices and internet access. Teacher training gaps further limit effective use of technology. Socio-cultural resistance, particularly from parents and communities, reflects concerns about the appropriateness of digital tools in religious education. These findings highlight the need for policy interventions that address both technical and cultural barriers.

Urban vs. Rural Comparisons

Urban schools demonstrated higher levels of technology integration compared to rural schools.

Table 4: Urban vs. Rural Comparisons

Indicator	Urban Schools (%)	Rural Schools (%)
Regular Use of Multimedia Tools	72%	38%
Access to Internet in Classrooms	65%	25%
Teacher Training in Digital Tools	58%	30%
Student Engagement Improvement	75%	50%

Interpretation: The disparity between urban and rural schools is evident. Urban schools benefit from better infrastructure and institutional support, resulting in higher engagement and more frequent use of digital tools. Rural schools, however, lag significantly, underscoring the digital divide within Balochistan’s education system.

Overall Interpretation

- Digital tools are present but inconsistently applied in Islamic Studies classrooms.
- Students show greater enthusiasm for mobile-based applications, while teachers rely more on multimedia presentations.
- Infrastructure and training gaps remain the primary barriers to effective integration.
- Urban schools are ahead of rural schools, highlighting inequities in access and opportunities.
- Socio-cultural resistance persists, but younger students demonstrate openness to digital learning, suggesting a generational shift.

Discussion

The findings of this study reveal that digital tools are moderately integrated into Islamic Studies classrooms in Balochistan, with multimedia presentations and Quranic applications being the most commonly used. This aligns with Majeed and YahyaAlhidabi (2024), who emphasized the growing importance of Qur’an and Hadith applications in enhancing comprehension and presentation in Islamic education. The preference for mobile-based applications among students suggests that accessibility and convenience play a critical role in shaping digital adoption, particularly in regions where infrastructural limitations persist. The study also highlights that digital tools are perceived as effective in improving engagement, comprehension, and retention of knowledge. These results resonate with Khan, Shahzad, and Mahar (2018), who argued that digital literacy fosters interactive and student-centered learning, moving beyond rote memorization. In Islamic Studies, this pedagogical shift is significant, as it allows students to engage with religious texts in more dynamic and contextualized ways. The positive perceptions reported by both teachers and students demonstrate that technology can complement traditional methods without undermining the authenticity of religious education.

However, challenges such as inadequate infrastructure, limited teacher training, and socio-cultural resistance remain prominent. The disparity between urban and rural schools underscores the digital divide within Balochistan, where urban institutions benefit from better resources and support, while rural schools struggle with limited access. This finding is consistent with SSR Publisher (2025), who noted that IT-based learning in Islamic education is often hindered by infrastructural gaps and uneven distribution of resources. Addressing these disparities is crucial for ensuring equitable access to digital learning opportunities. Teacher readiness emerged as another critical factor. While teachers acknowledged the benefits of digital tools, many reported insufficient training in digital pedagogy. This reflects Khan et al.'s (2018) observation that digital literacy requires not only technical skills but also emotional adaptability and critical evaluation of information. Without structured training programs, teachers may remain hesitant to adopt technology, thereby limiting its effectiveness in classrooms. Socio-cultural concerns also play a role in shaping technology adoption. Some parents and communities expressed reservations about the appropriateness of digital tools in religious education. This tension between tradition and innovation reflects broader debates in Islamic pedagogy, where the authenticity of religious transmission is often prioritized over modern teaching methods (Majeed & Yahya Alhidabi, 2024). Nevertheless, the openness of younger students to digital learning suggests a generational shift that could gradually reduce resistance over time.

Overall, the discussion indicates that while digital tools hold significant potential to enhance Islamic Studies education in Balochistan, their effectiveness depends on addressing infrastructural, pedagogical, and socio-cultural barriers. Strategic investment in teacher training, equitable resource distribution, and community awareness programs could help bridge these gaps. By situating Islamic Studies within the broader framework of digital pedagogy, this research contributes to ongoing debates about how religious education can remain authentic yet relevant in the digital age.

Conclusion

This study set out to investigate the scope of digital tools and technology usage in Islamic Studies classrooms at the secondary level in Balochistan. The findings demonstrate that while digital tools such as multimedia presentations, Quranic and Hadith applications, and online discussion platforms are being introduced, their use remains limited and uneven across schools. Teachers and students generally perceive these tools as beneficial for enhancing engagement, comprehension, and retention of religious knowledge. However, infrastructural challenges, insufficient teacher training, and socio-cultural resistance continue to hinder effective integration.

The research highlights a clear disparity between urban and rural schools, with urban institutions showing greater adoption of technology due to better resources and institutional support. Rural schools, by contrast, struggle with inadequate access to devices and internet connectivity, reinforcing the digital divide within the province. Despite these challenges, the openness of students to mobile-based applications and interactive learning methods suggests a growing potential for technology to complement traditional pedagogy in Islamic Studies.

Overall, the study concludes that digital tools can significantly enrich Islamic Studies education in Balochistan if supported by targeted interventions. Investment in teacher training, infrastructure development, and awareness programs is essential to overcome barriers and ensure equitable access. By strategically integrating technology, Islamic Studies classrooms can evolve into more interactive, student-centered learning environments that preserve the authenticity of religious education while aligning with contemporary educational practices.

Recommendations

Infrastructure Development

- Provide reliable internet connectivity and access to digital devices in both urban and rural schools.
- Establish computer labs or smart classrooms equipped with projectors, interactive whiteboards, and multimedia resources.

- Ensure equitable distribution of resources to reduce the digital divide between urban and rural institutions.
Teacher Training and Professional Development
- Organize regular workshops and training programs to enhance teachers' digital literacy and pedagogical skills.
- Incorporate modules on the use of Qur'an and Hadith applications, multimedia tools, and e-learning platforms in teacher training curricula.
- Encourage peer-learning networks where teachers can share best practices in technology integration.

Curriculum Integration

- Revise Islamic Studies curricula to include structured use of digital tools, ensuring alignment with learning objectives.
- Develop interactive lesson plans that combine traditional teaching with digital resources to foster critical thinking and engagement.
- Introduce blended learning approaches that balance face-to-face instruction with online activities.

Student Engagement and Support

- Promote the use of mobile applications and online platforms that allow students to access Qur'anic texts, Hadith collections, and scholarly interpretations.
- Encourage collaborative learning through digital discussion forums, group projects, and online quizzes.
- Provide orientation sessions for students to develop responsible and effective use of digital tools in religious education.

Community and Cultural Awareness

- Conduct awareness campaigns to address socio-cultural concerns about technology in Islamic education, emphasizing its role in enhancing—not replacing—traditional values.
- Involve parents and community leaders in discussions about the benefits of digital integration to build trust and acceptance.

Policy and Institutional Support

- Education authorities should formulate clear policies for integrating technology into Islamic Studies at the secondary level.
- Allocate funding for digital infrastructure, teacher training, and curriculum development.
- Monitor and evaluate the effectiveness of technology integration through regular assessments and feedback mechanisms.

Future Research and Innovation

- Encourage further studies on the long-term impact of digital tools on students' moral, spiritual, and intellectual development.
- Explore innovative technologies such as virtual reality (VR) and artificial intelligence (AI) for immersive Islamic learning experiences.
- Investigate strategies to adapt global digital education practices to the cultural and religious context of Balochistan.

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