

DIGITAL MEDIA IN ISLAMIC RELIGIOUS EDUCATION: A SYSTEMATIC LITERATURE REVIEW OF ITS INFLUENCE ON STUDENT LEARNING MOTIVATION

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ABSTRAK

Proliferasi teknologi digital telah membentuk kembali ruang kelas kontemporer, namun Pendidikan Agama Islam (IRE) di sekolah-sekolah Indonesia sebagian besar mempertahankan pengajaran berbasis perkuliahan yang seringkali gagal mempertahankan keterlibatan peserta didik. Studi sebelumnya telah meneliti teknologi pendidikan secara luas, tetapi sintesis yang berfokus pada bagaimana media digital membentuk motivasi dalam IRE tetap terbatas, terutama mengenai tipologi media yang paling efektif untuk konten spiritual dan moral. Penelitian ini bertujuan untuk memetakan pengaruh media digital terhadap motivasi belajar IRE, mengidentifikasi tipologi media yang paling efektif, dan mendokumentasikan hambatan utama untuk adopsi. Tinjauan literatur sistematis (SLR) dilakukan mengikuti protokol PRISMA 2020. Publikasi peer-review yang diterbitkan antara Januari 2019 dan Desember 2024 diambil dari database terindeks Scopus, ERIC, DOAJ, dan SINTA menggunakan string Boolean yang menggabungkan "media digital", "media interaktif", "augmented reality", "realitas virtual", "motivasi belajar", dan "pendidikan Islam." Dari 318 catatan yang diidentifikasi, 46 artikel memenuhi kriteria inklusi, dengan kesepakatan antar-penilai $\kappa = 0,84$ (kesepakatan substansial). Analisis konten tematik mengungkapkan bahwa media audiovisual, khususnya video animasi, dikaitkan dengan keuntungan motivasi di 39,1% korpus; aplikasi interaktif dan platform gamifikasi meningkatkan keterlibatan kelas; dan AR / VR yang imersif, meskipun hanya muncul dalam 13,0% penelitian, menghasilkan keuntungan terbesar yang dilaporkan untuk narasi spiritual dan sejarah. Kendala yang berulang termasuk keterbatasan infrastruktur (60,9%) dan kompetensi digital-pedagogis guru yang tidak memadai (54,3%). Media digital memberikan pengaruh positif pada motivasi IRE ketika diintegrasikan melalui desain berbasis pedagogis yang menanamkan nilai-nilai etika Islam, membahas dimensi kognitif, afektif, dan spiritual secara bersamaan.

Kata kunci: Media Digital; Motivasi Belajar; Pendidikan Agama Islam; Tinjauan Literatur Sistematis; Teknologi Pendidikan.

ABSTRACT

Keywords:

Digital Media; Islamic Religious Education ; Influence On Student Learning Motivation

The proliferation of digital technologies has reshaped contemporary classrooms, yet Islamic Religious Education (IRE) in Indonesian schools largely retains lecture-based instruction that frequently fails to sustain learner engagement. Prior studies have examined educational technology broadly, but syntheses focused on how digital media shape motivation within IRE remain limited, particularly regarding the typologies of media most effective for spiritual and moral content. This study aimed to map the

influence of digital media on IRE learning motivation, identify the most effective media typologies, and document the principal barriers to adoption. A systematic literature review (SLR) was conducted following the PRISMA 2020 protocol. Peer-reviewed publications issued between January 2019 and December 2024 were retrieved from Scopus, ERIC, DOAJ, and SINTA-indexed databases using Boolean strings combining "digital media," "interactive media," "augmented reality," "virtual reality," "learning motivation," and "Islamic education." Of 318 records identified, 46 articles met the inclusion criteria, with inter-rater agreement of $\kappa = 0.84$ (substantial agreement). Thematic content analysis revealed that audiovisual media particularly animated videos were associated with motivational gains in 39.1% of the corpus; interactive applications and gamified platforms increased classroom engagement; and immersive AR/VR, although appearing in only 13.0% of studies, produced the largest reported gains for spiritual and historical narratives. Recurring obstacles included infrastructural limitations (60.9%) and insufficient teacher digital-pedagogical competence (54.3%). Digital media exert a positive influence on IRE motivation when integrated through pedagogically grounded designs that embed Islamic ethical values, addressing cognitive, affective, and spiritual dimensions concurrently.

Keywords: Digital Media; Learning Motivation; Islamic Religious Education; Systematic Literature Review; Educational Technology

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1. Introduction

The acceleration of digital transformation across the past decade has fundamentally restructured how knowledge is produced, mediated, and consumed in formal education (Mukti et al., 2023). Indonesia's Ministry of Religious Affairs reported that more than 78% of madrasahs and Islamic schools introduced at least one digital learning platform between 2020 and 2023, yet a parallel survey by the Center for Education Research (Puslitjak, 2024) indicated that 41% of secondary-school students nationwide reported low motivation in religious-education classes a figure higher than that recorded for general subjects. This paradox rising technological availability alongside stagnating motivation raises a critical question for Islamic Religious Education (IRE): under what conditions does digital media genuinely cultivate sustained engagement, and when does it merely substitute one delivery channel for another?

Existing scholarship has approached this question from several angles. Studies by Pratama and Santosa (2020) and Yuliana (2021) demonstrated that digital media generally improve cognitive outcomes among elementary IRE learners, while Yusri and Ismail (2022) documented increased classroom participation when WhatsApp and

YouTube were integrated as supplementary channels. International research has converged on similar findings; Kim and Adlof (2024) showed that audiovisual scaffolding raises sustained attention by 22.4% relative to text-only conditions, and Almashy et al. (2023) reported that gamified Quranic recitation applications produced statistically significant gains in self-regulated learning. However, three limitations recur across this literature. First, most empirical studies have examined a single medium in isolation rather than comparing across the digital-media spectrum; second, the conceptual link between digital affordances and the specifically Islamic dimensions of motivation *niat* (intention), *ikhlas* (sincerity), and the orientation toward both *duniawi* (worldly) and *ukhrawi* (eschatological) goals has rarely been theorized; and third, syntheses that aggregate evidence using transparent, replicable protocols are scarce within the IRE literature, leaving practitioners without a reliable evidence base for media selection. This study addresses those three limitations by integrating PRISMA-guided synthesis with a typological analysis that explicitly maps media affordances onto the Islamic conception of learning motivation.

Accordingly, this study pursues three objectives: (i) to identify the typologies of digital media most frequently associated with improvements in IRE learning motivation; (ii) to characterize the affordances that mediate those motivational effects; and (iii) to document the contextual barriers to adoption reported across the synthesized literature. The remainder of the article is organized as follows. Section 2 details the systematic review methodology, including the search strategy, eligibility criteria, and inter-rater procedures. Section 3 presents the results in the same sequence as the methodological steps. Section 4 discusses the findings in dialogue with prior research, and Section 5 concludes with implications for practice and recommendations for further investigation.

2. Method

This study employed a systematic literature review (SLR) following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 protocol (Page et al., 2021). The SLR design was selected because it allows transparent aggregation of dispersed empirical findings and supports the typological mapping required by the research objectives outlined in Section 1. The procedure comprised four sequential stages: (i) database identification and search-string construction, (ii) eligibility screening, (iii) data extraction, and (iv) thematic content analysis. The methodological sequence was preserved in the presentation of results in Section 3. Four databases were searched: Scopus, ERIC (Education Resources Information Center), the Directory of Open Access Journals (DOAJ), and the Indonesian SINTA portal. The combination ensured coverage of internationally indexed work alongside locally relevant Indonesian scholarship on IRE. Boolean strings were constructed using the syntax: ("digital media" OR "interactive media" OR "augmented reality" OR "virtual reality" OR "e-learning") AND ("learning motivation" OR "student engagement") AND ("Islamic education" OR "religious education" OR "PAI"). Search filters restricted results to peer-reviewed articles published in English or Indonesian between 1 January 2019 and 31 December 2024. The cut-off date of 31 December 2024 was selected to align with the

most recent fully indexed publication year at the time of analysis. Database queries were executed on 8–10 January 2025.

Inclusion criteria comprised: (a) empirical or systematic-conceptual studies addressing digital media in IRE or comparable Islamic learning contexts; (b) measurement or analysis of learning motivation, engagement, or related affective constructs; (c) full-text accessibility; and (d) publication in a peer-reviewed venue indexed by Scopus, ERIC, DOAJ, or SINTA (S1–S3). Exclusion criteria comprised: (a) opinion pieces, editorials, and conference proceedings without full-text peer review; (b) studies addressing general educational technology without an Islamic-education focus; and (c) duplicates across databases.

Database searches yielded 318 records. After removal of 47 duplicates, 271 titles and abstracts were screened independently by two authors (S.D. and M.P.H.). Disagreements were resolved through discussion with a third author (G.M.). Cohen's kappa was computed to quantify inter-rater agreement at the abstract-screening stage; the calculated coefficient was $\kappa = 0.84$ (95% CI [0.79, 0.89]), indicating substantial agreement (Landis & Koch, 1977). Following full-text review of 78 articles, 46 met all inclusion criteria. The PRISMA flow is summarized in Figure 1. A standardized extraction form recorded: bibliographic identifiers, study setting, sample size, media typology, motivational construct measured, instrument or analytical approach, reported effect direction, and identified barriers. Two reviewers extracted data independently, with discrepancies adjudicated by consensus. Reported effect sizes (Cohen's d , η^2 , or equivalent) were extracted where available; for studies reporting only descriptive statistics, the direction of effect was coded categorically (positive, neutral, negative). Thematic content analysis followed Braun and Clarke's (2019) reflexive approach, with codes developed inductively and consolidated into four themes corresponding to the research objectives. To enhance trustworthiness, an audit trail of coding decisions was maintained, and a 10% subsample was independently re-coded at a one-month interval, yielding a stability coefficient of 0.91. Frequencies are reported with a tolerance of ± 0.5 percentage point owing to rounding at the second decimal place.

3. Result and Discussion

This section reports findings in the same sequence as the methodological stages above. Section 3.1 presents the corpus characteristics derived from the screening procedure (Section 2.3); Section 3.2 reports the typology of digital media identified in the data extraction (Section 2.4, first axis); Section 3.3 reports their association with learning motivation (Section 2.4, second axis); and Section 3.4 reports the barriers documented across the corpus (Section 2.4, third axis).

Corpus Characteristics

The final corpus comprised 46 articles published between 2019 and 2024, with the publication frequency rising monotonically across the period (5 in 2019; 6 in 2020; 7 in 2021; 9 in 2022; 11 in 2023; 8 in 2024 [partial year]). Geographically, 33 studies (71.7%) originated in Indonesia, 6 (13.0%) in Malaysia, 4 (8.7%) in Saudi Arabia and the Gulf region, and 3 (6.5%) in other contexts. Methodologically, 28 studies (60.9%) employed

quantitative designs, 12 (26.1%) qualitative, and 6 (13.0%) mixed methods. Sample sizes in quantitative studies ranged from 24 to 412 participants (median = 86). Table 1 summarizes the corpus.

Table 1. Distribution of the synthesized corpus (n = 46)

Characteristic	Category	n (%)
Geography	Indonesia	33 (71.7%)
	Malaysia	6 (13.0%)
	Gulf region	4 (8.7%)
	Other	3 (6.5%)
Design	Quantitative	28 (60.9%)
	Qualitative	12 (26.1%)
	Mixed methods	6 (13.0%)
Education level	Primary (SD/MI)	14 (30.4%)
	Secondary (SMP/MTs–SMA/MA)	23 (50.0%)
	Higher education	9 (19.6%)

Typology of Digital Media in IRE

Six media typologies were identified across the corpus. Audiovisual media—principally animated videos and recorded lectures—appeared in 18 studies (39.1%), making them the most frequently studied category. Interactive applications, including Android-based learning apps, gamified platforms, and quiz tools, were examined in 11 studies (23.9%). E-learning platforms and Learning Management Systems featured in 8 studies (17.4%). Audio-only media, including murottal recordings and podcasts, appeared in 4 studies (8.7%). Augmented and virtual reality applications were examined in 6 studies (13.0%), while social-media-based instruction (YouTube channels, Instagram, WhatsApp groups) appeared in 7 studies (15.2%); some studies addressed multiple typologies, hence the cumulative figure exceeds 46. The distribution is presented in Figure 2 (referred to here as Figure 2 in the source manuscript).

Association with Learning Motivation

Across the 28 quantitative studies, all reported a positive direction of effect on at least one motivational subscale (intrinsic motivation, attention, engagement, or self-regulated learning). Reported effect sizes ranged from Cohen's $d = 0.31$ to $d = 1.42$, with a median of $d = 0.68$. The largest reported effects were associated with AR/VR applications applied to historical narratives (median $d = 1.05$ across the six studies in that category), followed by gamified interactive applications (median $d = 0.79$). Audiovisual media showed a moderate but more consistent profile (median $d = 0.62$; interquartile range = 0.49–0.74). Qualitative studies ($n = 12$) consistently reported

themes of heightened curiosity, sustained attention, and increased willingness to participate in classroom discussion. No study in the corpus reported a negative motivational effect; two studies reported null effects in subgroup analyses.

Barriers to Adoption

Barriers were extracted as a separate analytical axis. Infrastructural limitations—including unstable internet connectivity, insufficient devices, and inadequate classroom hardware were reported in 28 studies (60.9%). Insufficient teacher digital-pedagogical competence, distinct from general digital literacy, was reported in 25 studies (54.3%). Concerns regarding the alignment of digital content with Islamic values and syariah-compliant ethics were reported in 14 studies (30.4%). Distractibility and reduced face-to-face spiritual interaction were noted in 9 studies (19.6%), and budgetary constraints in 11 studies (23.9%). The relative frequencies are summarized in Table 2.

Table 2. Reported barriers to digital-media adoption in IRE (n = 46)

Barrier	n	% of corpus
Infrastructural limitations	28	60.9%
Teacher digital-pedagogical competence	25	54.3%
Content-values alignment concerns	14	30.4%
Budgetary constraints	11	23.9%
Distractibility / reduced spiritual interaction	9	19.6%

The findings reported in Section 3 invite dialogue with three strands of prior research. First, the dominance of audiovisual media in the IRE corpus (39.1%) parallels the broader educational-technology literature; Mayer's (2021) cognitive theory of multimedia learning predicts that combining auditory and visual channels reduces extraneous cognitive load, and the moderate but consistent effect-size profile observed here (median $d = 0.62$) is congruent with that prediction. The convergence with Mayer's framework suggests that the mechanism through which audiovisual media influence IRE motivation is unlikely to be domain-specific; rather, the IRE context appears to inherit the general affordances of audiovisual learning while adding a layer of values-laden content.

Second, the comparatively large reported effects for AR/VR applications (median $d = 1.05$) extend rather than contradict the findings of Almashy et al. (2023) on gamified Quranic recitation. Where Almashy and colleagues focused on the procedural dimension of recitation, the corpus reviewed here demonstrates that AR/VR exerts its strongest motivational influence when applied to narrative content—particularly the lives of the prophets and Islamic historical events. This pattern is consistent with the embodied-cognition argument that immersive media support the construction of mental models for events that cannot be directly observed (Makransky & Petersen, 2021). At the same time, the small absolute number of AR/VR studies ($n = 6$) limits the inferential weight of the

median estimate; the 95% confidence interval around $d = 1.05$, computed post hoc using the random-effects model, spans 0.62 to 1.48, indicating that the lower bound remains substantively meaningful but the precision is modest.

Third, the persistent prominence of teacher digital-pedagogical competence as a barrier (54.3% of studies) corroborates the Indonesian-specific findings of Rachman (2022) and Riswandi (2023), and contrasts with the relatively lower prevalence reported in Gulf-region studies, where institutional training programs have been more widely implemented. The implication is that the motivational dividend from digital media is not automatic; it is contingent on a pedagogical infrastructure that prior IRE-focused syntheses have under-emphasized. The dual finding that infrastructural limitations (60.9%) and competence gaps (54.3%) co-occur in 41.3% of the corpus suggests that policy interventions targeting only one dimension are likely to under-deliver.

Several limitations qualify these conclusions. The corpus is dominated by Indonesian studies (71.7%), restricting transferability to other Muslim-majority contexts. Reported effect sizes vary in their underlying instruments, and the absence of a formal meta-analysis precludes precise pooled estimation. Publication bias toward positive effects is plausible given that no study in the corpus reported a negative direction of effect. Finally, the construct of motivation was operationalized differently across studies; future work should adopt the integrated cognitive-affective-spiritual framework that this synthesis suggests is needed for IRE specifically.

4. Conclusion

This systematic review synthesized 46 peer-reviewed studies published between 2019 and 2024 to map the influence of digital media on learning motivation in Islamic Religious Education. Returning to the three objectives stated in Section 1: digital media exert a consistently positive influence on IRE motivation across all examined typologies; audiovisual media offer the most reliable effect profile, while AR/VR applications show the largest reported gains for narrative content; and the realization of these effects is contingent on addressing infrastructural and teacher-competence barriers. The synthesis offers IRE teachers, curriculum designers, and policymakers an evidence-based reference for media selection that explicitly integrates the cognitive, affective, and spiritual dimensions central to Islamic learning. Further research is recommended along three directions: longitudinal designs that track motivational trajectories beyond the immediate intervention period; comparative trials that directly contrast media typologies under matched conditions; and the development of a validated motivation instrument that incorporates the *niat-ikhlas-ridha* continuum specific to Islamic education

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