

Grounding Islamic Education Transformation in Religious Moderation: Bridging the Policy-Practice Gap in Indonesia's Merdeka Curriculum

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Article History:

Received: January 19th, 2026 Accepted: June 21st, 2026 Published: June 22nd, 2026

Abstract

The policy-practice gap constitutes a persistent challenge in Indonesia's Islamic education transformation as two landmark policy reforms converge: the Merdeka Curriculum (2022) and Presidential Regulation on Religious Moderation (2023). Despite evident institutional commitments, implementation often remains superficial, constraining the effectiveness of digital technology integration, the internalization of religious moderation values, pedagogical innovation, and curriculum reform across diverse Islamic educational institutions. This systematic review synthesizes empirical evidence from 55 peer-reviewed, Scopus-indexed studies (2020-2025) and uses the PRISMA 2020 protocol to identify strategic pathways to bridge this gap. Findings reveal that sustainable transformation requires cross-dimensional integration of digital technology, religious moderation, pedagogical innovation, and curriculum reform, with religious moderation operationalized through wasatiyyah values and dialogical methods, which emerge as a foundational anchor of the entire transformation framework. Teacher digital competency gaps and structural policy-practice misalignment constitute the most critical implementation barriers. The integrative conceptual model constructed demonstrates that transformative success depends on three strategic pillars: strong institutional leadership, sustained teacher capacity development, and coherent alignment between policy design and field implementation capacity. These findings offer evidence-based pathways for policymakers, practitioners, and researchers committed to designing sustainable, equitable, and empirically grounded Islamic education transformation within Indonesia's Merdeka Curriculum era.

Keywords: digital transformation, Islamic education transformation, Merdeka Curriculum, policy-practice gap, religious moderation

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Citation: Nugraha, N. A. A., Fakhruddin, A., Pradipta, A. S., Helmy, H. A., & Patriasya, P. G. (2026). Grounding Islamic Education Transformation in Religious Moderation: Bridging the Policy-Practice Gap in Indonesia's Merdeka Curriculum. *Southeast Asian Journal of Islamic Education*, 9(1), 1–22. <https://doi.org/10.21093/sajie.v9i1.12560>

A. Introduction

Islamic education in Indonesia stands at a critical juncture, confronting four interconnected dimensions of systemic transformation: the integration of digital technology, the reinforcement of values of religious moderation, pedagogical innovation, and curriculum reform responsive to national and global demands. The convergence of two landmark government policies has created unprecedented momentum for this transformation. The Merdeka Curriculum, launched in 2022 and subsequently implemented in madrasah environments through Minister of Religious Affairs Decree Number 450 of 2024, provides institutional flexibility to adapt learning content according to local contexts (Kemendikbudristek, 2022; Kementerian Agama Republik Indonesia, 2024). Presidential Regulation Number 58 of 2023 on Strengthening Religious Moderation further establishes a policy mandate to integrate wasatiyyah values across all aspects of education, including Islamic religious education (Perpres No. 58, 2023).

Despite these ambitious policy frameworks, empirical evidence consistently reveals a persistent and troubling policy-practice gap across all four transformation dimensions. In the digital domain, madrasah teachers continue to demonstrate inadequate competencies in utilizing ICT-based learning media, with infrastructure deficits and limited institutional readiness compounding the challenge (Eraku et al., 2021; Mahsusi et al., 2024). In the moderation domain, Chotimah et al. (2025) documented that the implementation of Presidential Regulation 58/2023 in many Islamic educational institutions remains superficial, reduced to procedural compliance rather than genuine internalization of values, with unclear organizational change management as the primary obstacle. In the curriculum domain, Ainissyifa et al. (2024) found that while Merdeka Curriculum policy commitments to flexibility and contextualization are explicit, actual classroom implementation frequently stalls due to limited institutional capacity and absent operational guidelines. In the pedagogical domain, Eraku et al. (2021) identified that the adoption of innovative methods, such as project-based learning and higher-order thinking skills development, remains constrained by persistent teacher competency gaps that one-time training workshops fail to address.

These converging gaps across four dimensions signal that the fundamental challenge is not policy design but policy implementation. However, the scholarly literature has responded to this challenge in fragmented ways. Most existing reviews examine digital, moderation, pedagogical, or curricular dimensions in isolation, without exploring the cross-dimensional synergies that effective transformation requires (Dluha et al., 2024). No systematic review has comprehensively mapped the mechanisms of success and implementation barriers across diverse institutional contexts, including Islamic schools, madrasahs, pesantrens, and higher education institutions. Furthermore, while individual studies identify implementation challenges, documented strategies for effectively bridging the policy-practice gap through integrated approaches remain minimal (Zainuddin et al., 2025).

To address these gaps, this systematic review examines empirical evidence on the effectiveness of Islamic education transformation across all four dimensions during the 2020-2025 period, identifies success mechanisms and barriers that consistently emerge across diverse institutional contexts, analyses cross-dimensional synergies, and proposes an integrative conceptual model with strategic pathways for sustainable transformation. This review synthesizes evidence from 55 peer-reviewed Scopus-indexed studies using the PRISMA 2020 protocol. Principal

contributions include a comprehensive cross-dimensional synthesis, the identification of consistent implementation success factors, the development of an integrative conceptual model, and the prioritization of urgent follow-up research agendas to strengthen evidence-based Islamic education policy in Indonesia.

B. Literature Review

The scholarly landscape on Islamic education transformation in Indonesia reveals a body of knowledge that is simultaneously rich in empirical output yet limited in integrative synthesis. Understanding why a policy-practice gap persists requires examining which theories and prior empirical findings illuminate each transformation dimension, and, more critically, how these dimensions interact in ways that isolated studies have failed to capture.

Digital transformation scholarship has established that successful technology integration in Islamic education requires more than merely providing infrastructure or procuring devices. Istibana & Aimah (2025) argue that genuine digital transformation necessitates a comprehensive reconstruction of pedagogy and curriculum aligned with Islamic epistemological values, a position reinforced by Trianita et al. (2024), who frame digital transformation as requiring the synthesis of technological affordances with Islamic pedagogical traditions. This perspective challenges earlier technocentric adoption models by foregrounding the pedagogical dimension as the mediating variable between technology availability and learning outcomes. However, a critical tension emerges in the literature: while transformative digital integration is theoretically well-articulated, empirical studies consistently document persistent teacher digital competency gaps as the primary implementation barrier, suggesting a disconnect between normative ideals and structural realities in professional development infrastructure (Eraku et al., 2021; Mahsusi et al., 2024).

Religious moderation (*wasatiyyah*) scholarship has evolved from theological discourse toward empirically grounded policy analysis following the enactment of Presidential Regulation Number 58 of 2023. Prasetyo et al. (2025) demonstrate that moderate education achieves meaningful outcomes when *wasatiyyah* values are integrated cross-curricularly through dialogical methods rather than confined to discrete religious instruction periods, directly challenging the compartmentalized approach that dominates most institutional practices. This finding aligns with Alamin et al. (2024), who demonstrate through phenomenological inquiry at Darussalam Gontor that hidden curriculum mechanisms embedded in daily institutional activities constitute more powerful moderation value internalization channels than explicit instructional content alone, while Ma'arif et al. (2024) further confirm that character-shaping through habituated institutional practices at madrasah produces measurable moderation outcomes. However, a critical gap persists: while both the theoretical rationale and initial empirical evidence for integrating cross-curricular moderation are compelling, rigorous evaluation frameworks that measure the long-term behavioral transfer of moderation values are absent from the literature, leaving policymakers without the metrics necessary for accountability and scaling decisions.

Pedagogical innovation scholarship presents a productive but contextually contingent picture. Research demonstrates growing validation of constructivist approaches, including project-based learning and the development of higher-order thinking skills, in Islamic educational settings (Kosasih et al., 2022; Asyari et al., 2024). However, a critical thread running through this literature is that innovations imported directly from secular educational contexts are less effective when not

adapted to align with Islamic pedagogical values and objectives (Usman & Bahraeni, 2025). This suggests that the relevant theoretical question is not whether constructivist pedagogies are effective, but under what contextual and adaptation conditions they produce meaningful outcomes in Islamic education. The literature further reveals that the duration and intensity of teacher professional development are decisive variables: sustained programs extending for six months or more with mentoring produce measurable competency gains, whereas one-time workshops do not (Mardhiah et al., 2023).

Curriculum development scholarship has concentrated on the Merdeka Curriculum's implementation dynamics in Islamic educational institutions. Ainissyifa et al. (2024) identify a structural paradox: the curriculum's design flexibility, intended as its primary asset, simultaneously becomes its vulnerability when the institutional capacity to operationalize it is inadequate. This is consistent with Zainuddin et al. (2025), who frame curriculum development in Islamic education as inherently tension-laden, requiring negotiation between preserving authentic Islamic knowledge traditions and equipping students with 21st-century competency frameworks. Wasehudin et al. (2023) provide a more optimistic counterpoint, demonstrating that the Merdeka Curriculum can be successfully adapted to preserve classical Islamic content in pesantren contexts when institutional leadership is committed and implementation guidance is operationalized in context.

Synthesizing across these four dimensions, a consistent pattern emerges: the theoretical and normative frameworks for transformation are well-developed, empirical evidence of effectiveness under specific conditions exists, yet successful implementation is systematically constrained by the same recurring factors across all dimensions, namely inadequate teacher competency development, weak policy-practice alignment mechanisms, and absent cross-dimensional integration strategies. Existing literature predominantly examines these dimensions in isolation (Dluha et al., 2024), producing a fragmented knowledge base that cannot adequately inform the systemic, integrative transformation that both the Merdeka Curriculum and Presidential Regulation on Religious Moderation demand. This systematic review directly addresses this integrative gap by synthesizing cross-dimensional evidence and developing an integrative conceptual model that positions religious moderation as the foundational anchor, rather than a parallel component, of Indonesia's Islamic education transformation.

C. Method

1. Review Design and Protocol

This study employed a systematic review design following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page et al., 2021). A review protocol was prepared before the literature search to define the review scope, search strategy, eligibility criteria, screening procedures, data extraction categories, quality appraisal framework, and synthesis approach.

2. Search Strategy and Eligibility Criteria

The literature search was conducted exclusively in the Scopus database because of its broad international coverage, strong indexing standards for peer-reviewed publications, and substantial representation of Islamic education scholarship. Search terms combined Islamic education keywords with four analytical dimensions: digital transformation, religious moderation, pedagogy, and curriculum.

The search was limited to publications from 2020 to 2025, article document type, English language, and subject areas relevant to the social sciences and humanities.

Studies were included if they met the following criteria: peer-reviewed journal articles published between 2020 and 2025; focused on Islamic education in Indonesia or comparative contexts in which Indonesia served as a primary analytical reference; addressed at least one of the four focal dimensions, namely digital transformation, religious moderation, pedagogical innovation, or curriculum development; presented empirical data through qualitative, quantitative, or mixed methods designs; and were available in full text. Studies were excluded if they were grey literature, editorials or opinion pieces without empirical evidence, studies without a specific Islamic education context, duplicate publications, or single-case studies lacking sufficient analytical depth or theoretical contribution.

3. Study Selection and Screening

Study selection followed four stages: identification, screening, eligibility assessment, and inclusion. Figure 1 presents the PRISMA flow diagram summarising the full selection process. The initial search yielded 139 records. After removing 10 duplicates, 129 unique records remained for title and abstract screening. This stage retained 80 potentially relevant studies and excluded 49 records. Of the 80 studies, 59 full texts were successfully retrieved, while 21 were inaccessible. Following full-text review, 55 studies met all inclusion criteria and were included in the final synthesis. One article was excluded due to inadequate presentation of empirical data, and three additional articles were not included in the main synthesis because they required further validation and lacked sufficiently robust empirical grounding.

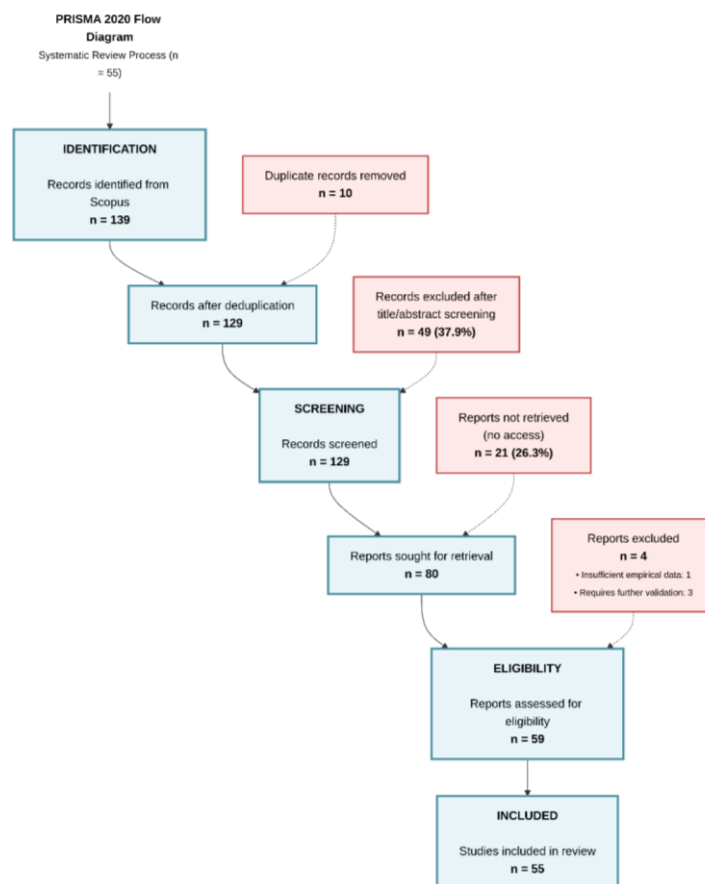


Figure 1. PRISMA flow diagram of study selection process (n = 55)

Screening and quality appraisal were conducted independently by two reviewers with prior training and experience in systematic review methodology and Islamic education research. The first reviewer was the first author, and the second reviewer was a senior academic with doctoral-level expertise and experience in methodological supervision. When relevance was uncertain, studies were retained for the next stage under a liberal inclusion principle to minimize premature exclusion. Disagreements were resolved through discussion and consensus, with a third reviewer consulted when necessary.

4. Data Extraction and Quality Appraisal

Data were extracted using a structured form covering six categories: study identification, study characteristics, focal dimension, methodology, key findings, and study quality. To improve consistency, the primary extraction process was checked by the second reviewer for 20 percent of randomly selected studies, equivalent to 11 of the 55 included studies.

Methodological quality was assessed using the Mixed Methods Appraisal Tool (Hong et al., 2018), which is suitable for evaluating qualitative, quantitative, and mixed methods studies within a single framework. Each study was assessed using five design-specific criteria and categorized as high, good, or adequate quality. Quality appraisal was conducted independently by two reviewers, with a joint reassessment of 20 percent of the sample to verify scoring consistency. No study was excluded solely on quality grounds; instead, quality ratings informed the weighting and interpretation of evidence in the synthesis.

5. Synthesis Approach

Because the included studies were heterogeneous in design, context, sample size, and outcome measures, meta-analysis was not feasible. The review, therefore, employed a structured narrative synthesis following the Synthesis Without Meta-analysis (SWiM) guideline (Campbell et al., 2020). The synthesis proceeded through five steps: categorization by primary dimension and emergent theme; tabulation of study characteristics and findings; thematic narrative construction; identification of convergences and divergences; and cross-dimensional synthesis to examine interactions among digital transformation, moderation, pedagogy, and curriculum. Interpretive decisions were documented systematically to strengthen transparency and reproducibility.

D. Findings

The final synthesis included 55 studies that met all inclusion criteria. The evidence base is predominantly Indonesian, methodologically diverse, and concentrated in the 2024-2025 period, reflecting the growing scholarly attention to Islamic education transformation in recent years. Table 1 presents the characteristics of this variation in the reviewed sample.

Table 1. Characteristics of Included Study Sample (n = 55)

Characteristic	n	%
Geographic Distribution		
Indonesia	51	92.7
Kuwait	2	3.6
Saudi Arabia	2	3.6
Institution Type		

General/Mixed	13	23.6
K-12 Schools	12	21.8
Higher Education	10	18.2
Madrasah	9	16.4
Pesantren	8	14.5
Dayah	2	3.6
Vocational	1	1.8
Publication Year		
2025	19	34.5
2024	23	41.8
2023	5	9.1
2022	3	5.5
2021	3	5.5
2020	2	3.6
Primary Research Dimension		
Pedagogy/Teaching	17	30.9
Digital/Technology	15	27.3
Moderation/Values	12	21.8
Curriculum/Design	11	20.0
Research Methodology		
Qualitative	26	47.3
Mixed Methods	12	21.8
Quantitative	7	12.7
Design Research	7	12.7
Systematic Review	3	5.5
Quality Rating (MMAT)		
High (8-10)	11	20.0
Good (7)	43	78.2
Adequate (6)	1	1.8
Average Score	-	7.02/10

Note: MMAT = Mixed Methods Appraisal Tool. Non-Indonesian studies include Kuwait (n = 2) and Saudi Arabia (n = 2).

As shown in Table 1, the sample is dominated by studies from Indonesia (92.7%), ensuring strong national policy relevance. The reviewed studies represent diverse institutional contexts, including general settings, K-12 schools, higher education, madrasah, pesantren, dayah, and vocational education. Methodologically, qualitative designs are the most dominant (47.3%), followed by mixed methods, quantitative studies, design research, and systematic reviews. MMAT assessment further indicates that 98.2% of the studies are categorized as good to high quality, with an average score of 7.02/10.

Beyond variation in sample characteristics, it is also important to examine how publication patterns evolved over the review period. Figure 2 presents the temporal distribution of publications from 2020 to 2025.

Temporal Distribution of Studies by Dimension (2020-2025)

Peak in 2024 marks surge in Islamic education research

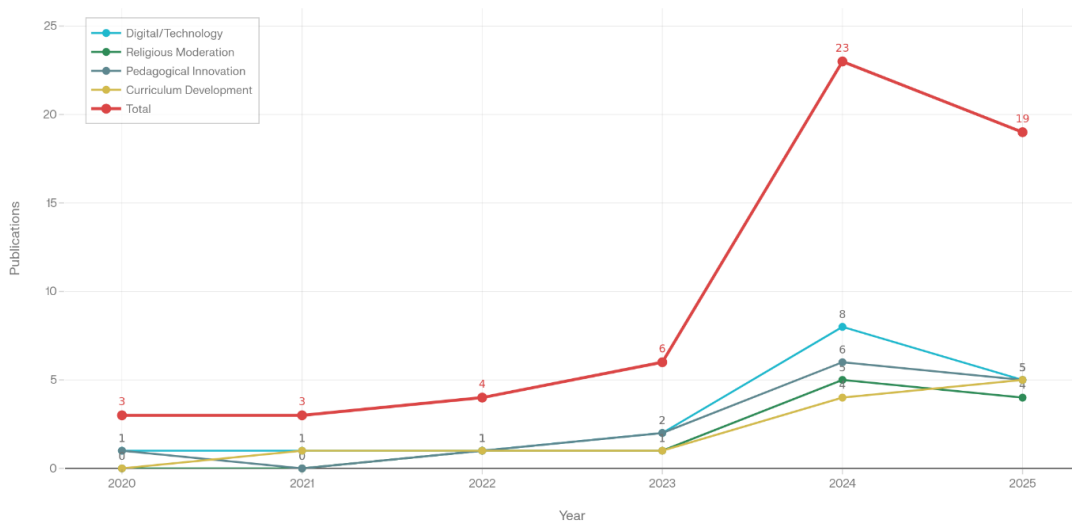


Figure 2. Temporal distribution of publications 2020-2025

Figure 2 shows a sharp increase in publications in 2024 and 2025, with 42 of the 55 studies (76.4%) published during this period. This concentration coincides with the implementation of the Merdeka Curriculum in 2022 and Presidential Regulation on Religious Moderation in 2023, suggesting that these policy developments stimulated a stronger research response to Islamic education transformation. In this sense, the temporal trend does not merely indicate publication growth, but also signals the increasing academic salience of transformation-related issues in the wake of recent national reforms.

After mapping the sample profile and temporal trend, the next step is to synthesize the distribution of the reviewed evidence across the four major dimensions of transformation. Table 2 provides this cross-dimensional synthesis.

Table 2. Cross-dimensional synthesis of evidence on Islamic education transformation (n = 55)

Dimension	n	Dominant Evidence Base	Core Finding	Main Policy-Practice Barrier	Key Success Mechanism
Digital Transformation	15	Quasi-experimental, mixed methods, and design research evidence [e.g., Adiyono et al., 2025; Affandi et al., 2021; Hamdi et al., 2024]	Digital learning platforms can significantly improve learning outcomes when pedagogically aligned with Islamic	Teacher digital competency gaps, infrastructure deficits, and uneven institutional readiness	Sustained teacher development, pedagogical alignment, and content authenticity

			content and values.	
Moderation and Religious Values	12	Mixed methods, phenomenology, qualitative inquiry, and design research [e.g., Kosim et al., 2024; Ma`arif et al., 2024; Mahmud et al., 2023]	Religious moderation is most effective when internalized through hidden curriculum, habituation, and cross-curricular integration.	Superficial implementation despite strong policy commitment, especially weak leadership vision and change management
Pedagogical Innovation	17	Qualitative, mixed methods, quantitative, and design research [e.g., Asyari et al., 2024; Mardhiah et al., 2023; Usman & Bahraeni, 2025]	Pedagogical innovations are effective when adapted to Islamic educational aims rather than transferred directly from secular contexts.	Limited teacher efficacy, weak professional support, and inconsistent implementation capacity
Curriculum Development and Design	11	Qualitative, design research, descriptive, and literature review evidence [e.g., Ainissyifa et al., 2024; Sapiudin et al., 2025; Wasehudin et al., 2023]	Merdeka Curriculum enables flexibility and contextualization, but its effectiveness depends on operational translation into institutional practice.	Limited implementation guidelines and weak post-implementation impact evaluation
				Clear implementation guidance, leadership commitment, and cross-dimensional alignment of curriculum, pedagogy, and institutional culture

The synthesis presented in Table 2 indicates that the evidence base across the 55 reviewed studies is unevenly distributed in quantitative terms, yet conceptually convergent. While pedagogy and digital transformation account for the largest number of studies, the moderation and curriculum dimensions reveal structural barriers that are equally critical, particularly in leadership, implementation fidelity, and the translation of policy intent into institutional practice. Across all four dimensions, a consistent pattern emerges: transformation is unlikely to succeed through isolated reform initiatives alone; rather, it depends on the coherent integration of policy design, teacher capacity, pedagogical adaptation, and institutional culture.

Building on this cross-dimensional synthesis, the following sections discuss the findings in greater depth across each transformation dimension: digital transformation, moderation and religious values, pedagogical innovation, and curriculum development and design.

1. Dimension 1: Digital Transformation (n=15 studies)

Digital learning platforms demonstrate substantial effectiveness in Islamic education contexts. Adiyono et al. (2025) in a quasi-experimental study of 100 vocational education students, researchers compared artificial intelligence-based YouTube videos with traditional instruction. They reported an effect size of 1.43 for learning outcomes, representing the strongest quantitative evidence across all reviewed dimensions. Affandi et al. (2021) Likewise, we found that thematic digital Quran learning models produced significant improvement when content organization was aligned with Islamic thematic structures.

At the same time, teacher digital competency gaps remain a critical barrier. Several studies, including Arif et al. (2025), Yusoff et al. (2025), and Syukur et al. (2024) identified substantial discrepancies between digital curriculum requirements and teachers' capabilities. Mardhiah et al. (2023) further documented that sustained six-month professional teacher training programs with mentoring produced meaningful improvement, indicating that such gaps can be reduced through systematic and long-term investment in teacher development.

Three success mechanisms emerge consistently in this dimension. First, pedagogical alignment is essential: digital platforms are effective only when integrated with Islamic pedagogical principles. Second, content authenticity must be preserved so that digital materials reflect recognized Islamic scholarly standards. Third, teacher readiness requires sustained training and mentoring rather than one-time workshops.

2. Dimension 2: Moderation and Religious Values (n=12 studies)

Religious moderation education demonstrates its strongest effects when embedded in both formal instruction and institutional culture. Mahmud et al. (2023) in a mixed-methods study in K-12 schools, researchers developed a comprehensive framework for character education based on *Maqāṣid al-Sharī'ah*, encompassing the protection of religion, intellect, life, property, and family. Ma'arif et al. (2024) A phenomenological study of madrasahs documented that the hidden curriculum, expressed through institutional culture and everyday interactions, serves as a crucial mechanism for the internalization of moderation values.

However, significant gaps between policy and practice remain evident. Chotimah et al. (2025) found that despite clear policy-level commitment to moderation education through Presidential Regulation 58/2023, implementation in many settings remains superficial. The study identified leadership vision clarity and organizational change management capacity as the principal limiting factors.

Three success mechanisms are consistently visible in this dimension. First, moderation education becomes more effective when explicit teaching of moderation principles is combined with habituation in daily institutional life. Second, teacher modeling is decisive because teachers who personally embody the values of moderation convey them more effectively to students. Third, institutional culture must be aligned with moderation objectives rather than confined to curriculum documents alone.

3. Dimension 3: Pedagogical Innovation (n=17 studies)

A wide range of pedagogical innovations has been validated in Islamic education contexts. Project-based learning has demonstrated effectiveness in K-12 schools and pesantren settings, enhancing student creativity, engagement, and the

contextual relevance of Islamic content. Higher-Order Thinking Skills can likewise be integrated through clear frameworks and standardized assessment rubrics.

Faith-based cooperative learning was developed by Usman & Bahraeni (2025) represents a distinctive innovation within Islamic education contexts. The findings suggest that pedagogical innovation is most effective when it is adapted to Islamic educational aims and values rather than transferred directly from secular educational models.

Teacher professional development also shows a substantial impact in this dimension. Mardhiah et al. (2023) documented significant improvement in teacher competency through the combination of structured pre-service preparation and sustained in-service development. Across this dimension, three success mechanisms stand out: contextual responsiveness, sustained professional development, and teacher efficacy and agency.

4. Dimension 4: Curriculum Development and Design (n=11 studies)

Implementation of the Merdeka Curriculum in Islamic education shows promising initial results. Ainissyifa et al. (2024) documented that curriculum flexibility enables differentiated learning and contextual localization. Wasehudin et al. (2023) further showed that the Merdeka Curriculum can be successfully adapted while preserving authentic classical Islamic content.

Digital integration in curriculum design also appears feasible across diverse settings. Several studies, including Hamdi et al. (2024), Marzuki et al. (2025), and Sapiudin et al. (2025) employed design research approaches to develop and validate digitally based learning modules, demonstrating that such integration is effective when aligned with pedagogical principles and content authenticity.

Nevertheless, an important gap remains in evaluation studies. Rigorous post-implementation impact studies that can attribute changes in learning outcomes to curriculum interventions are still limited. This limitation constitutes an urgent research priority to inform policy decisions on scaling and sustainability.

Three success mechanisms characterize this dimension. First, implementation guidelines must be sufficiently clear to ensure consistency while preserving local flexibility. Second, sustained institutional leadership commitment is necessary if curricular adaptation is to move beyond formal compliance. Third, cross-dimensional integration is crucial, particularly the alignment of curriculum policy with teacher practice, assessment systems, and institutional culture.

5. Cross-Dimensional Analysis

Cross-dimensional analysis reveals distinct patterns of research focus by institution type. Table 3 shows the distribution of research focus.

Table 3. Distribution of Research Focus by Institution Type

Institution	Total	Digital	Pedagogy	Moderation	Curriculum	Primary Focus
K-12 Schools	18	4	5	3	6	Implementation-focused
Higher Education	17	5	4	2	6	Digital + Curriculum
Pesantren	12	3	3	4	2	Values preservation

Madrasah	11	2	2	3	4	Curriculum modernization
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Note: Total institutional mentions (n = 58) exceeds the number of studies (n = 55) because three studies involved multiple institution types in multi-site designs (Mahmud et al., 2023; Sofi et al., 2025; Wasehudin et al., 2023).

Figure 3 visualizes research focus patterns across institutions, showing distinct dimensional priorities shaped by institutional characteristics and needs.

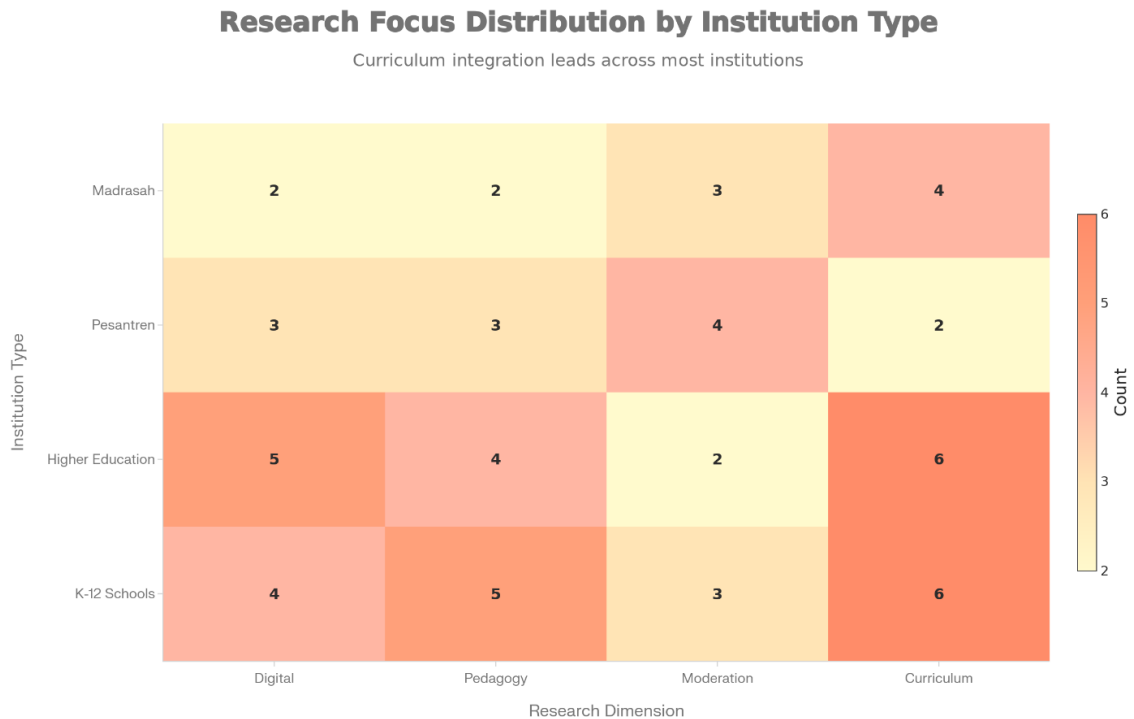


Figure 3. Heatmap of research focus by institution type and study dimension

These patterns reflect different institutional characteristics and priorities: K-12 schools focus on pedagogy and practical implementation; higher education emphasizes digital transformation and curriculum redesign; pesantrens prioritize religious value preservation; madrasahs focus on curriculum modernization.

Evidence from 55 studies indicates that Islamic education transformation is most effective when all four dimensions are integrated systemically. Figure 4 presents a conceptual model of integration.

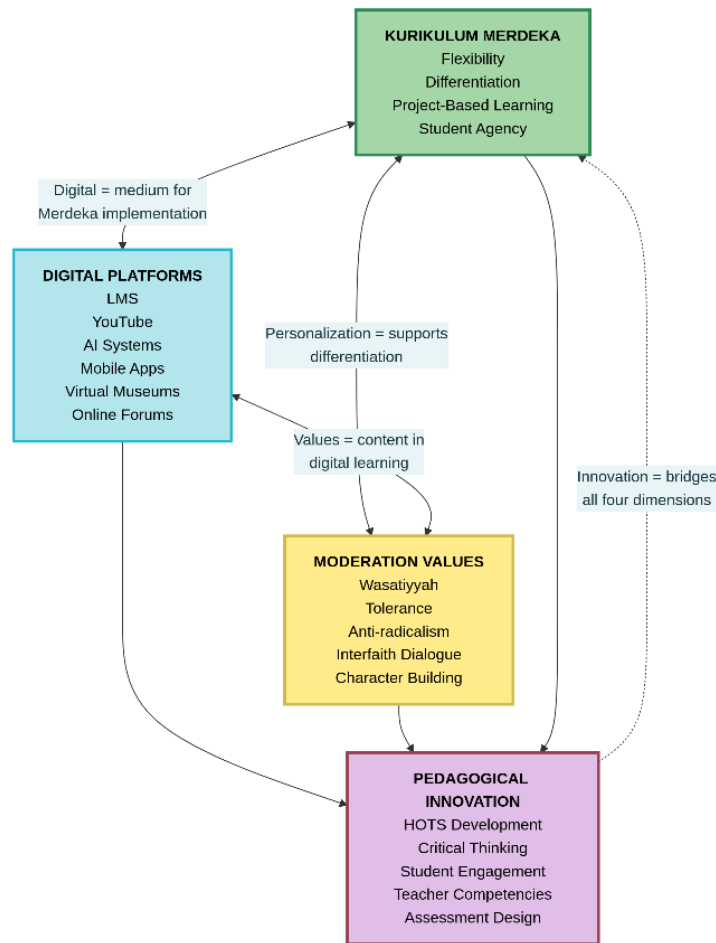


Figure 4. Conceptual model of digital, moderation, pedagogy, and curriculum dimension integration in Islamic education transformation

The model shows Merdeka Curriculum as the structural framework, digital platforms as the delivery medium ($d = 1.43$), moderation values as guiding principles, and pedagogical innovation as the operationalization vehicle. Studies demonstrating successful integration include Wasehudin et al. (2023) and Sapiudin et al. (2025), indicating that isolated approaches are limited in effectiveness, whereas cross-dimensional integration yields synergistic results.

Table 4. Summary of Evidence Strength by Dimension

Dimension	Evidence Strength	Effect Size	n Studies	Critical Gaps
Digital	Moderate-Strong	$d = 1.43$ (AI video)	15	Ethical frameworks AI; long-term sustainability
Moderation	Moderate	Mixed qualitative	12	Long-term behavioral transfer: assessment frameworks

Pedagogy	Moderate-Strong	Multiple validated	17	Cross-context transferability; sustainability mechanisms
Curriculum	Strong initial	Descriptive	11	Urgent: Rigorous impact evaluation; equity assessment

Note: Evidence strength assessment based on methodological quality (MMAT), sample size, cross-study consistency, and availability of quantitative effect sizes.

E. Discussion

1. Integration of Findings and Dialogue with Previous Research

This review demonstrates that the transformation of Islamic education in Indonesia is best understood as a cross-dimensional process rather than as a set of isolated reforms. Earlier studies on digital transformation have already argued that technology adoption in Islamic education becomes meaningful only when accompanied by pedagogical and curricular reconstruction grounded in Islamic values. The present review confirms that argument and extends it by showing that digital effectiveness is further conditioned by the successful integration of religious moderation and teacher capacity development, not only by infrastructure or platform access.

This finding also refines prior scholarship on religious moderation in Islamic education. Prasetyo et al. (2025) showed that moderation becomes more effective when embedded across subjects through dialogical and integrative approaches rather than restricted to stand-alone moral messages, while Ma'arif et al. (2024) and Alamin et al. (2024) indicated that hidden curriculum and institutional culture play decisive roles in shaping moderate dispositions. The present synthesis supports these claims, yet adds a more critical insight: moderation fails to become transformative when it remains policy rhetoric without pedagogical translation, leadership commitment, and institutional habituation. In other words, the contribution of this review is not merely to affirm the value of moderation, but to show the structural and pedagogical conditions under which moderation can move from policy discourse into lived educational practice.

The review likewise enters into dialogue with scholarship on curriculum reform. Ainissyifa et al. (2024) and Astuti et al. (2024) emphasized that the Merdeka Curriculum creates opportunities for contextualization, differentiation, and learner-centered adaptation in Islamic education settings. However, Zainuddin et al. (2025) and Wasehudin et al. (2023) also noted that curriculum reform in Islamic education must navigate a persistent tension between maintaining Islamic authenticity and meeting 21st-century competency demands. The present review confirms both tendencies, but it sharpens the explanation by showing that curricular flexibility alone does not ensure transformation. Where teacher preparedness, implementation guidance, and institutional culture are weak, curricular flexibility may produce only symbolic compliance rather than substantive pedagogical renewal.

A similar pattern appears in relation to pedagogical innovation. Previous studies have shown that project-based learning, HOTS-oriented instruction, and faith-based cooperative learning can improve engagement, creativity, and contextual relevance in

Islamic education. However, the present synthesis indicates that such pedagogical innovations succeed only when adapted to Islamic educational aims rather than borrowed mechanically from generic educational reform discourse. This point is important because it corrects an often implicit assumption in reform literature that pedagogical modernization is inherently beneficial. The evidence reviewed here suggests the opposite: pedagogical innovation becomes transformative only when it is epistemically aligned with Islamic educational purposes and supported by teacher efficacy, institutional mentoring, and policy coherence.

2. Conceptual Contribution of the Integrative Model

The integrative conceptual model proposed in this review should therefore be read as a relational explanation of transformation rather than as a descriptive summary of variables. The model conceptualizes Islamic education reform as the product of alignment among four dimensions: curriculum as a structural framework, digital technology as an enabling medium, pedagogy as an operational mechanism, and religious moderation as a normative anchor. This formulation departs from earlier approaches that tended to privilege a single dominant driver, whether digitalization, curriculum redesign, or pedagogical innovation (Abror & Noviani, 2025; Arizqi et al., 2026; Munawar & Endang, 2026; Prasetyo et al., 2025; Qoyyumillah & Aziz, 2026; Rokhzi, 2025; Satrisno et al., 2025). By contrast, the present review shows that fragmentation across these domains is precisely what sustains the policy-practice gap.

This model also contributes conceptually by elevating religious moderation from a thematic add-on to a foundational organizing principle. Previous literature often treated moderation either as a policy imperative or as a values-based curricular supplement. The synthesis in this review suggests a stronger claim: moderation, especially when operationalized through *wasatiyyah* values, dialogical learning, teacher modeling, and hidden curriculum, provides the ethical coherence that binds the broader transformation agenda together. Without that normative anchor, digital reform risks technical instrumentalism, curriculum reform risks administrative formalism, and pedagogical innovation risks becoming detached from the moral and epistemic commitments of Islamic education.

This conceptual move is significant because it explains why some reform efforts appear active but remain shallow. Chotimah et al. (2025) found that the moderation policy is often implemented superficially, while Eraku et al. (2021) and Arif et al. (2025) documented persistent teacher competency gaps in digital contexts. Rather than reading these problems as separate failures, the present review interprets them as symptoms of weak alignment among policy ambition, institutional culture, teacher readiness, and pedagogical design. In that sense, the model does not simply aggregate four dimensions. It explains how their lack of coherence generates the very gap that current policy reforms seek to overcome.

3. Success Mechanisms, Contradictions, and Persistent Barriers

Across the reviewed literature, several enabling mechanisms appear repeatedly. Strong leadership, sustained teacher professional development, curriculum clarity, and community support were identified as recurrent conditions for successful implementation. These findings resonate with studies emphasizing mentoring-based professional development and leadership commitment, including Mardhiah et al. (2023) and Mahsusi et al. (2024). However, this review adds a more synthetic interpretation: these factors are not supplementary supports but the core

implementation architecture through which cross-dimensional integration becomes operational.

At the same time, the review reveals important contradictions within the literature. On the one hand, digital interventions such as AI-supported learning videos and digitally integrated modules show promising effects on engagement and learning outcomes. On the other hand, multiple studies report that teacher digital competence, assessment readiness, and regional resource inequality remain major obstacles. This contrast indicates that the issue is not whether digital tools can work, but under what institutional and pedagogical conditions they can work equitably and sustainably (Greenhow & Lewin, 2021; Werfhorst et al., 2022; Yousofi et al., 2025; Yulin & Danso, 2025). The same contradiction appears in moderation research: while values-based and hidden curriculum approaches are repeatedly praised, robust longitudinal evidence on whether such interventions produce durable behavioral transfer remains scarce (Bond et al., 2024; Espín & García-Martínez, 2026; Liefgreen et al., 2023; Meyer, 2023).

The review also exposes a tension between policy optimism and implementation realism. Policy documents and reform-oriented studies tend to assume that institutional flexibility will naturally generate innovation. However, the evidence synthesized here indicates that flexibility without implementation capacity often produces ambiguity, uneven interpretation, and performative compliance. This finding is especially important for Islamic education because reform occurs across highly diverse institutional settings, including schools, madrasahs, pesantrens, and higher education institutions, each with different traditions, governance models, and resource profiles. The policy-practice gap, therefore, should not be seen merely as a failure of execution, but as a structural mismatch between reform design and contextual capacity.

4. Practical and Policy Implications

These findings carry several implications for practice and policy. For educational institutions, the central implication is that transformation should not be managed through fragmented initiatives, such as digitalization without pedagogical redesign or moderation discourse without institutional habituation. Instead, schools, madrasahs, pesantrens, and higher education institutions need an integrated reform architecture in which teacher development, curriculum adaptation, technology use, and moderation values are designed as mutually reinforcing processes. This interpretation is more demanding than many existing reform prescriptions, but it is also more consistent with the evidence synthesized in this review.

For policymakers, the results indicate that the effectiveness of the Merdeka Curriculum and the religious moderation agenda depends less on policy issuance than on the design of implementation. Ainissyifa et al. (2024) and Chotimah et al. (2025). Both point to the fragility of reform when field-level support remains weak. Building on these findings, the present review suggests that policy success requires long-term investment in teacher capacity, institutional mentoring, context-sensitive implementation guidelines, and post-implementation evaluation that measures not only compliance but educational depth. This is particularly relevant for Islamic education, where normative, curricular, and pedagogical change cannot be reduced to administrative alignment alone.

For teacher education institutions, the implication is equally clear. The evidence suggests that pre-service and in-service programs must move beyond generic digital training to include moderation-oriented pedagogy, curriculum interpretation,

hidden-curriculum design, and practice-based mentoring. Without such preparation, future teachers may understand reform language conceptually yet remain unable to enact it in classrooms and institutional cultures marked by real constraints.

5. Future Research and Empirical Testing of the Model

Reviewer feedback is correct in implying that a conceptual model gains value only when it is rendered empirically testable. For that reason, the integrative conceptual model proposed here should be developed into a future research agenda rather than left as a narrative abstraction. At a minimum, future studies should operationalize the model across multiple levels: policy coherence and support systems at the macro level; institutional leadership and cultural alignment at the meso level; teacher competence and pedagogical enactment at the micro level; and student learning, engagement, and moderation-related dispositions at the outcome level.

Several empirical strategies are especially promising. Longitudinal studies are needed to test whether moderation values internalized through hidden curriculum and dialogical pedagogy produce durable behavioral effects over time. Quasi-experimental and experimental designs are needed to examine whether integrated reform models outperform single-dimension interventions in improving student outcomes. Structural equation modeling could test whether religious moderation operates as a mediating or moderating variable linking curriculum reform, pedagogical innovation, and learning outcomes. Multilevel designs could examine whether institutional leadership and resource conditions alter the strength of teacher-level and classroom-level effects across different Islamic education settings.

The model can also be falsified, which is a strength rather than a weakness. If future research finds, for example, that digital integration produces strong learning gains without meaningful moderation alignment or pedagogical redesign, then the integrative claim would need to be refined. Conversely, if integrated models consistently outperform fragmented ones across contexts, the argument of this review would gain stronger empirical standing. By specifying these pathways, the present study directly addresses the reviewer's concern and positions the model as a testable framework for the next phase of Islamic education research in Indonesia.

6. Limitations

Several limitations remain important in interpreting this discussion. The review was restricted to the Scopus database, and 21 articles could not be retrieved in full text, potentially excluding relevant evidence. The dominance of qualitative and descriptive studies, alongside the limited number of quasi-experimental designs, restricts the strength of causal inference. In addition, many studies remain concentrated in Java and urban settings, potentially underrepresenting institutional conditions in rural and eastern Indonesian contexts. These limitations do not negate the value of the synthesis. However, they do explain why the review is strongest in mapping relational patterns, barriers, and strategic pathways rather than in making definitive causal claims.

F. Conclusion

This systematic review shows that the transformation of Islamic education in Indonesia cannot be achieved through fragmented reform initiatives, and across 55 peer-reviewed studies, digital technology, religious moderation, pedagogical innovation, and curriculum development proved most effective when aligned within

an integrated framework rather than implemented as separate agendas. The review, therefore, extends previous scholarship by showing that the policy-practice gap persists not simply because of weak implementation, but because these dimensions are often operationalized without cross-dimensional coherence. A key contribution of this study is the integrative conceptual model, which positions the Merdeka Curriculum as the structural framework, digital technology as the enabling medium, pedagogical innovation as the operational mechanism, and religious moderation as the normative anchor of transformation. This model helps explain why policy reforms often remain superficial in practice when leadership is weak, teacher capacity is limited, and institutional culture does not support moderation-oriented pedagogical change. The review further identifies three strategic pillars of successful implementation: strong institutional leadership, sustained teacher capacity development, and alignment between policy design and implementation capacity. At the same time, the evidence base remains methodologically uneven, indicating the need for longitudinal, quasi-experimental, multilevel, and structural equation modeling studies to test the model more rigorously across diverse Islamic educational contexts. In this way, the study responds directly to the need for a more conceptually grounded and empirically testable framework for understanding Islamic education transformation in Indonesia.

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