



A Conceptual Framework for Science-Islam-Culture Integrated Learning Management in Islamic Higher Education

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Abstract: Islamic higher education institutions face an enduring epistemological challenge: the dichotomy between modern scientific knowledge, Islamic revealed knowledge, and local cultural heritage. This tension undermines the holistic formation of graduates who are simultaneously intellectually competent, spiritually grounded, and culturally rooted. This article develops a conceptual framework for Science-Islam-Culture Integrated Learning Management (SIC-ILM) in Islamic higher education, based on a critical synthesis of relevant literature spanning learning management, Islamic educational philosophy, science integration, and cultural pedagogy. A systematic thematic literature review was conducted using reputable international journals, academic books, and policy documents sourced from Scopus-indexed, SINTA-ranked, and peer-reviewed repositories. Thematic synthesis was employed to identify recurring patterns, conceptual gaps, and theoretical convergences. Five core dimensions emerged: (1) tawhidic epistemological foundations, (2) science-Islam integration processes, (3) cultural-contextual mediation, (4) management functions (planning, organizing, implementing, and controlling), and (5) transformative educational outcomes. These dimensions are mutually reinforcing and constitute the SIC-ILM Framework. The proposed framework offers a generic, adaptable model for designing, managing, and evaluating integrated learning systems in Islamic higher education, providing a theoretical basis for future empirical research and practical curriculum development.

Keywords: holistic education; Islamic higher education; integrated curriculum; learning management; Science-Islam-Culture Integration; tawhidic epistemology.

Introduction

Higher education globally is confronted with an accelerating crisis of relevance, fragmentation, and ethical accountability (Nugraha et al., 2024). In the context of Islamic higher education, this crisis assumes a distinctly epistemological character: the structural separation between '*ulum naqliyyah* (revealed sciences) and '*ulum 'aqliyyah* (rational sciences), a dichotomy inherited from post-colonial secular educational paradigms, continues to fragment curriculum design, pedagogical practice, and graduate formation (Al-Faruqi, 1982; Ismail et al., 2025). Contemporary demands for graduates who are globally competitive, morally responsible, and culturally conscious simultaneously require that Islamic higher education institutions (IHEIs) transcend disciplinary silos and institutional conservatism. In the era of globalization and rapid technological

transformation, traditional fragmented approaches to knowledge are no longer sufficient to address complex societal challenges. Instead, IHEIs are increasingly expected to adopt integrative and holistic paradigms that combine revealed knowledge (naqli) and rational-scientific inquiry ('aqli), ensuring that students develop both intellectual competence and ethical depth.

Such transformation calls for curriculum reform that promotes interdisciplinary learning, critical thinking, creativity, and collaboration while remaining grounded in Islamic values and worldview. This integrative approach enables students to engage meaningfully with modern disciplines such as science, technology, and social sciences without losing their spiritual and moral orientation. At the same time, it fosters cultural consciousness by strengthening identity, heritage appreciation, and awareness of global diversity. Moreover, institutional reform is necessary to overcome rigid bureaucratic structures that often limit innovation in teaching and research. By embracing transdisciplinary models, IHEIs can position themselves as dynamic centers of knowledge production that respond effectively to the needs of the 21st century. Ultimately, this paradigm shift aims to produce graduates who are not only employable in global markets but also capable of contributing to ethical leadership, social justice, and sustainable development in multicultural societies (Zulfikri & Ramadhan, 2025).

The 21st-century context intensifies these challenges. Rapid technological transformation, globalisation, and epistemological pluralism demand that IHEIs produce graduates equipped with critical thinking, ethical reasoning, cultural literacy, and scientific competence qualities that no single disciplinary paradigm alone can cultivate (Ramadina et al., 2025). Despite numerous national and international reform efforts, including Indonesia's dual curriculum for State Islamic Universities (*Universitas Islam Negeri/ UIN*) and Malaysia's integrated Islamic education policies, the structural and pedagogical mechanisms for realizing genuine integration remain insufficiently theorized (Wahyu et al., 2020).

The case for integrating science, Islamic values, and culture in learning rests on a triadic rationale. First, epistemologically, the Islamization of Knowledge project, most rigorously articulated by Al-Faruqi (1982) and Al-Attas (1991), posits that all knowledge is inherently unified under the principle of tawhid (the Oneness of God), and that the separation between the sacred and secular in academic disciplines is both philosophically untenable and practically harmful (Al-Attas, 1991; Al-Faruqi, 1982). Second, pedagogically, science education that is devoid of ethical and cultural context produces what Al-Faruqi (1982) warned is "the malaise of the *ummah*" technically proficient graduates who are spiritually alienated and culturally uprooted. Third, culturally, the integration of local wisdom and indigenous knowledge systems through ethnoscience and culturally responsive pedagogy strengthens the contextual relevance of learning, increases student engagement, and fosters civic identity (Sari et al., 2025; W. Yuliani, 2018).

The Islamic ethnoscience approach has shown promising outcomes in bridging scientific knowledge, Islamic values, and local cultural wisdom through the development of contextually grounded digital learning media. This approach emphasizes the importance of connecting empirical scientific content with religious principles and indigenous knowledge systems, allowing learners to understand science not as a separate entity but as part of a unified worldview. By embedding cultural and Islamic perspectives into instructional design, learning becomes more meaningful, relevant, and reflective of students' lived experiences. In addition, digital media plays a significant role in facilitating interactive and accessible learning environments that support this integration. Similarly, the incorporation of Islamic values into Basic Cultural Sciences curricula has been proven to enhance the development of key graduate competencies. These competencies include truthfulness, accountability, ethical awareness, and social harmony. Through this integration, students are not only equipped with academic knowledge but also guided to develop strong moral character and social responsibility. The curriculum encourages learners to apply Islamic ethical principles in understanding cultural phenomena and social interactions. As a result, education becomes a holistic process that shapes both intellectual capacity and moral integrity, ensuring that graduates are prepared to contribute positively to society while upholding Islamic values in their professional and personal lives (Subekti & Hilmy, 2024).

The convergence of the three domains—science, Islam, and culture—represents not merely a matter of curriculum design preference, but a fundamental philosophical imperative for authentic Islamic higher education. This integration reflects the necessity of developing an educational

system that does not separate knowledge from values, nor science from spirituality and cultural identity. Instead, it emphasizes a holistic worldview in which all forms of knowledge are interconnected and directed toward the realization of human well-being and moral excellence. In this framework, science provides empirical and analytical tools for understanding the natural and social world, Islam offers ethical and theological guidance rooted in revelation, and culture provides contextual meaning shaped by local wisdom and lived experiences. When these three elements are integrated, education becomes more comprehensive, relevant, and transformative. It enables students to develop not only intellectual competence but also moral awareness and cultural sensitivity. Therefore, Islamic higher education must move beyond fragmented disciplinary approaches and adopt an integrative paradigm that aligns knowledge with values and context. This convergence ensures that graduates are not only skilled professionals but also individuals who embody ethical integrity, spiritual awareness, and social responsibility in their academic and societal roles (Gay, 2010; Ladson-Billings, 1994).

The actualisation of any integrated curriculum vision depends critically upon systematic learning management. Learning management, understood as the disciplined application of management functions planning, organising, implementing, and evaluating to the design and delivery of learning experiences, constitutes the operational bridge between educational philosophy and classroom practice (Muhaimin, 2015; Munir et al., 2024). Without robust management structures, even the most philosophically coherent integration frameworks risk remaining theoretical abstractions. Research consistently affirms that effective learning management in IHEIs requires leadership commitment, competent human resources, purposive curriculum planning, and continuous quality evaluation (Minsih et al., 2024; Muhaimin, 2015).

The POAC (Planning, Organising, Actuating, Controlling) management model has been widely implemented in Indonesian educational institutions as a systematic framework to ensure that institutional objectives are effectively translated into structured and measurable operational activities. Through the planning stage, institutions formulate strategic goals and learning targets; organizing focuses on allocating resources and responsibilities; actuating emphasizes the implementation of programs and academic activities; while controlling ensures evaluation and continuous improvement of outcomes. In the context of Islamic Higher Education Institutions (IHEIs), however, the POAC model should not be applied in a purely technical or administrative manner. Instead, it needs to be enriched with normative Islamic management principles that guide both process and purpose. These principles include *amanah* (trustworthiness), which emphasizes responsibility in managing educational resources and duties; *shura* (consultation), which promotes participatory decision-making and collective deliberation; and *itqan* (excellence in work), which encourages professionalism, precision, and continuous quality improvement in all institutional activities. By integrating these Islamic values into the POAC framework, educational management becomes not only efficient but also ethically grounded. This integration ensures that institutional practices are aligned with Islamic moral teachings, so that management itself reflects the values it aims to transmit to students. Consequently, Islamic higher education institutions can achieve both organizational effectiveness and spiritual integrity in their educational mission.

Despite an expanding body of literature on Islamic education reform, several critical gaps persist. First, most existing integration frameworks are either philosophically aspirational without operational specificity, or operationally prescriptive without theoretical depth (Wahyu et al., 2020; Zulfikri & Ramadhan, 2025). Second, the triadic relationship among science integration, Islamic educational values, and cultural/local wisdom has not been systematically theorised within a unified learning management framework. Third, existing models tend to be context-specific tied to particular disciplines (e.g., natural sciences, social sciences), educational levels (e.g., madrasah, pesantren), or national contexts (Indonesia, Malaysia) limiting their generalisability (Hidayaturrahman et al., 2020). Fourth, the managerial dimensions of integrated learning how integration is planned, staffed, implemented, and evaluated at institutional and classroom levels remain significantly undertheorised in the literature.

This article aims to address existing gaps in the literature by developing a comprehensive conceptual framework, namely the Science-Islam-Culture Integrated Learning Management (SIC-ILM) Framework. This framework is constructed through a critical synthesis of scholarly works

drawn from four major theoretical domains, including learning management, Islamic educational philosophy, science integration, and culturally responsive pedagogy. The primary objective of this development is to provide a more holistic and systematic model that can guide the implementation of integrated learning in Islamic higher education contexts. By combining these four domains, the framework seeks to bridge the separation between scientific knowledge, Islamic values, and cultural understanding, ensuring that education is both academically rigorous and spiritually meaningful. Furthermore, the SIC-ILM framework is designed to offer practical and theoretical contributions by enhancing how educators design, implement, and evaluate learning processes. It emphasizes that effective education must consider not only cognitive development but also moral, spiritual, and cultural dimensions. Through this integrative approach, the framework contributes to strengthening the foundation of Islamic education in a modern, diverse, and globally connected academic environment (Thomas & Harden, 2008; Torraco, 2016).

The framework is designed to be generic, flexible, and adaptable across various academic disciplines, learning objectives, and institutional contexts. It is not limited to a specific field of study, but instead provides a broad and inclusive structure that can be applied in diverse educational settings within Islamic Higher Education Institutions (IHEIs). This adaptability allows the framework to remain relevant in both traditional and modern educational environments, ensuring its usefulness in addressing contemporary academic challenges. In addition to its theoretical contribution, the framework aspires to serve as a foundational model for further academic development and refinement in the field of integrated learning management. It provides conceptual clarity that can support future research and innovation in Islamic education. Practically, the framework is intended to function as a guide for curriculum designers, educational managers, and policymakers in developing effective and value-based educational systems. By combining scientific knowledge, Islamic principles, and cultural context, it offers a comprehensive approach to improving the quality and relevance of education in IHEIs (Ismail et al., 2025).

Method

This study employs a qualitative thematic literature review as its primary research design. The thematic literature review is appropriate for conceptual framework development as it enables the systematic identification, critical evaluation, and synthetic integration of theoretical and empirical contributions across multiple relevant domains (Braun & Clarke, 2006). The goal is not merely to describe existing literature but to critically analyse, interrogate, and synthesise it in service of producing new conceptual knowledge (Ramadina et al., 2025).

Literature was drawn from four categories of sources: (1) Scopus-indexed and Web of Science-indexed international journals in the fields of educational management, curriculum studies, Islamic education, and science education; (2) SINTA-ranked Indonesian journals in Islamic higher education; (3) foundational academic books in Islamic educational philosophy and (4) policy documents and institutional frameworks from UNESCO and the Indonesian Ministry of Religious Affairs (Kemenag). The publication timeframe was primarily 2015–2026, with seminal pre-2015 works retained for their foundational theoretical significance.

Literature was selected based on the following criteria: (a) relevance to one or more of the four theoretical domains; (b) methodological rigour (peer-reviewed, empirically grounded, or theoretically substantial); (c) recency (2015–2026 preferred); and (d) potential contribution to the conceptual synthesis. Works addressing only peripheral topics, methodologically weak studies, and non-scholarly commentaries were excluded. A total of approximately 60 sources met the inclusion criteria and were incorporated into the analysis (Thomas & Harden, 2008).

Data extraction followed a three-stage thematic synthesis process (Thomas & Harden, 2008): (1) *line-by-line coding* of key concepts, theoretical constructs, and findings from each source; (2) *descriptive thematic construction*, in which codes were grouped into preliminary themes representing the four analytical domains; and (3) *analytical theme generation*, in which cross-domain patterns, convergences, and tensions were identified and synthesised into overarching framework dimensions. NVivo-style iterative coding was applied manually, with inter-rater reliability ensured through reflexive triangulation between the theoretical domains and the emerging framework structure (Braun & Clarke, 2006).

Results and Discussion

Learning Management: Theoretical Foundations

Learning management, as a discipline, draws from classical management theory (Taylor, Fayol, Gulick) and its application to educational contexts (Hersey & Blanchard, 1982; Muhaimin, 2015; Terry, 1953). The management of learning refers to the total range of decisions and actions undertaken to ensure that educational objectives are achieved effectively through the systematic coordination of human, material, and temporal resources. It involves planning, organizing, implementing, and evaluating all aspects of the learning process in order to create an environment that supports meaningful and sustainable educational outcomes. In Islamic educational contexts, learning management is not merely a technical or administrative activity, but a form of institutional stewardship (*khilafah*) that carries ethical and spiritual responsibility. It is guided by Islamic moral principles that emphasize accountability, justice, trustworthiness, and excellence in every aspect of educational practice. Therefore, educational managers are not only responsible to institutional goals but also to higher moral and religious obligations. This perspective positions management as an integral part of Islamic educational philosophy, where every decision and action must align with Islamic values. As a result, learning management becomes a holistic process that integrates efficiency with ethics, ensuring that educational institutions not only achieve academic success but also contribute to the formation of morally responsible and spiritually aware individuals (Munir et al., 2024).

Contemporary learning management theory emphasizes adaptive, flexible, and transformational approaches in responding to the evolving needs of education systems. In modern educational discourse, management is no longer viewed as a rigid administrative process, but as a dynamic system that must continuously adjust to changes in society, technology, and institutional demands. This shift highlights the importance of innovation, responsiveness, and sustainability in educational practices. Transformational learning management, in particular, is characterized by visionary leadership, collaborative planning, and continuous quality improvement. Leaders in this model are expected to inspire institutional change, encourage teamwork among stakeholders, and ensure that all educational processes are consistently evaluated and improved. This approach is highly relevant in Islamic Higher Education Institutions (IHEIs), which are currently facing increasing pressures from globalization and digitalization. In this context, IHEIs must integrate modern management strategies with Islamic values to remain competitive while maintaining their spiritual and ethical identity. By adopting transformational learning management, these institutions can enhance academic quality, strengthen institutional governance, and ensure that education remains relevant in a rapidly changing global environment (Nugraha et al., 2024).

Research in Indonesian Islamic Higher Education Institutions (IHEIs) affirms that the quality of learning management is a primary determinant of student learning outcomes. This includes key components such as curriculum planning, faculty development, provision of adequate infrastructure, and the design of effective assessment systems. When these elements are well managed, they significantly enhance the effectiveness of teaching and learning processes, leading to improved academic achievement and holistic student development. The POAC (Planning, Organising, Actuating, Controlling) model offers a well-validated and practical framework that can guide institutions in systematically managing educational processes. Planning ensures clear educational goals, organizing allocates resources efficiently, actuating focuses on implementation of learning activities, and controlling provides mechanisms for evaluation and continuous improvement. When applied reflexively within Islamic educational contexts, the POAC model is capable of accommodating the normative dimensions of Islamic institutional governance. This includes integrating values such as accountability, trustworthiness, and ethical responsibility into every stage of management. As a result, learning management in IHEIs becomes both structurally effective and value-oriented (Subekti & Hilmy, 2024).

Science Integration in Education

Science integration in education refers to the pedagogical and curricular practice of connecting scientific knowledge with other domains of understanding, including ethical, cultural, spiritual, and historical perspectives, in order to produce learning that is more meaningful, contextual, and holistic.

Rather than treating science as an isolated body of knowledge, this approach emphasizes its relationship with broader human experiences and values. In Islamic Higher Education Institutions (IHEIs), science integration functions at multiple interconnected levels. At the philosophical level, it concerns the ontological and epistemological status of scientific knowledge within an Islamic worldview, ensuring that science is understood in harmony with divine revelation. At the curricular level, it involves the development of interdisciplinary or integrated courses that combine scientific subjects with Islamic and cultural studies. At the pedagogical level, it is reflected in teaching strategies that draw upon multiple sources of knowledge, encouraging critical thinking and value-based learning. Finally, at the evaluative level, it includes assessment methods that measure not only cognitive achievement but also ethical, spiritual, and social dimensions of student learning outcomes. Through these layered processes, science integration contributes to a more comprehensive and balanced educational system that aligns with the goals of holistic Islamic education (Meldona & Sulis Rochayatun, 2024).

The integrated paradigm for science and religion in Islamic universities, as examined by Wahyu et al. (2020), introduces a structured framework that emphasizes four distinct levels of integration: philosophical, methodological, material, and strategic. Each level represents a different dimension of how science and Islamic knowledge can be systematically combined within higher education systems. The philosophical level addresses the foundational worldview that unifies knowledge under an Islamic epistemology. The methodological level focuses on the approaches and research methods used to harmonize scientific inquiry with Islamic principles. The material level concerns the actual content of the curriculum, ensuring that both scientific and religious elements are meaningfully incorporated. Meanwhile, the strategic level relates to institutional policies and long-term planning for implementing integration across academic programs. This multilevel model offers a more detailed and operational framework for curriculum design compared to earlier conceptualizations proposed by scholars such as Al-Faruqi (1982) and Al-Attas (1991). While their works primarily emphasize philosophical foundations of knowledge integration, Wahyu et al. provide a more practical and applicable structure that can be directly implemented in educational settings. As a result, this approach enhances the ability of Islamic universities to develop curricula that are both intellectually rigorous and aligned with Islamic values, ensuring a balanced integration of science and religion in higher education.

Research in Indonesian UIN campuses demonstrates that science integration is most effective when implemented through an interdisciplinary and concentrically structured curriculum. In this model, scientific knowledge and Islamic teachings are systematically and reciprocally connected across various course offerings, ensuring that both domains support and enrich one another. This approach allows students to understand scientific concepts within a broader Islamic worldview, while also strengthening their ability to apply religious values in academic and practical contexts. More recent developments in educational practice, particularly STEAM learning integrated with Islamic values, further highlight the importance of innovative pedagogical approaches. This model combines Science, Technology, Engineering, Arts, and Mathematics with Islamic ethical and spiritual principles, creating a more holistic learning experience. It demonstrates that effective science integration requires not only curriculum redesign but also supportive teaching strategies. Key enabling conditions include flexible curriculum design that accommodates interdisciplinary learning, strong collaboration among teachers across different disciplines, and the implementation of value-based instructional methods. Together, these factors contribute to a more dynamic and meaningful educational process that aligns scientific advancement with moral and spiritual development within Islamic higher education institutions (Al hamdani & Yousif, 2025).

Islamic Educational Philosophy and Values

The philosophical foundation of Islamic education is grounded in the principle of *tawhid*, which refers to the comprehensive unity of God, humanity, knowledge, and creation. This principle is not limited to metaphysical belief but extends to all aspects of life, including education. It establishes a worldview in which all forms of knowledge are interconnected and ultimately derived from the oneness of God, shaping how learning is understood and practiced within Islamic educational systems. From an educational perspective, *tawhid* carries significant implications. It affirms that all knowledge is sacred because it reflects divine creation and order.

Consequently, the process of learning is not merely an intellectual activity but also an act of worship (*'ibadah*) when conducted with sincere intention and ethical awareness. This understanding elevates education beyond the acquisition of information, transforming it into a spiritual and moral endeavor. Furthermore, all educational outcomes are expected to contribute to the formation of the complete human being (*insan kamil*), who embodies intellectual, moral, and spiritual excellence. In this sense, the *tawhidic* paradigm serves as a normative framework that integrates science, culture, and educational management into a unified system. It ensures that Islamic education remains holistic, value-oriented, and aligned with its ultimate purpose of developing balanced and responsible human beings.

Al-Faruqi's Islamization of Knowledge project operationalises the principle of integrating Islamic values with modern academic disciplines through a structured 12-step work plan. This framework is designed to systematically guide scholars and educators in transforming contemporary fields of knowledge so that they align with an Islamic worldview. The process begins with the mastery of modern disciplines, ensuring that scholars fully understand existing scientific and intellectual traditions before attempting any form of integration or critique. After achieving disciplinary competence, the framework moves toward critical evaluation of Western knowledge systems from an Islamic perspective. This stage involves identifying philosophical assumptions, values, and methodologies that may conflict with Islamic epistemology. Following this, the process advances to the Islamisation phase, where concepts, methods, and theories are reinterpreted and reconstructed in accordance with Islamic principles. Ultimately, the work plan culminates in disciplinary reconstruction, where new bodies of knowledge are developed that reflect both scientific rigor and Islamic ethical foundations. Through this systematic approach, Al-Faruqi aims to produce an integrated academic tradition that eliminates dichotomies between religion and science, fostering a unified and holistic understanding of knowledge (Azra, 2020).

Al-Attas, by contrast, locates the core problem of knowledge in the concept of *ta'dib*, which frames education as the disciplining and refinement of the self. He argues that the crisis in modern knowledge systems is not merely methodological but fundamentally ethical and ontological, arising from the loss of Islamic *adab*—the proper recognition of hierarchy, meaning, and moral order in both knowledge and practice. In this view, education is not only about transmitting information, but also about cultivating virtue, correct behavior, and a sound worldview that aligns with divine guidance. The synthesis of Al-Faruqi's methodological pragmatism and Al-Attas's ontological depth provides a more comprehensive philosophical foundation for developing an integrated learning management framework.

Al-Faruqi emphasizes systematic procedures for Islamizing knowledge, while Al-Attas focuses on the spiritual and ethical transformation of the learner. When combined, these perspectives produce a balanced approach that integrates both structure and meaning in educational reform. More recently, Zarkasyi (2025) advances this discourse through a three-stage framework consisting of epistemic identification, critical deconstruction, and *tawhidic reconstruction*. This model offers a practical and operational pathway for curriculum designers in contemporary Islamic Higher Education Institutions (IHEIs), enabling them to translate abstract philosophical ideas into concrete curricular and pedagogical strategies that support the Islamization of knowledge in a systematic and context-sensitive manner.

Cultural Integration in Learning

Cultural integration in education, grounded in culturally responsive pedagogy, emphasizes that learning becomes most effective when it recognizes, incorporates, and validates the cultural knowledge, lived experiences, and values that students bring into the classroom. This approach views culture not as an external factor, but as an essential component of the learning process that shapes how students understand and engage with knowledge. In the context of Islamic Higher Education Institutions (IHEIs), this principle is operationalized through several practical strategies. One of the main approaches is *ethnoscience*, which integrates local scientific knowledge systems with formal academic science to create more meaningful and context-based learning experiences. In addition, the incorporation of local wisdom (*kearifan lokal*) plays a crucial role in connecting educational content with community traditions, values, and environmental realities. This ensures that learning remains relevant to students' social and cultural backgrounds. Furthermore, culturally

grounded curriculum design is applied to ensure that teaching materials, methods, and assessments reflect the diversity of learners' cultural contexts. Through these approaches, cultural integration enhances student engagement, strengthens identity awareness, and promotes more inclusive and meaningful education within IHEIs, while still aligning with Islamic values and academic standards (T. Yuliani et al., 2025).

Ethnoscience, defined as the systematic study of how different cultural groups understand, classify, and interact with the natural world, provides a powerful bridge between scientific knowledge and cultural knowledge within Islamic educational contexts. It enables the integration of local wisdom with formal scientific concepts, creating a learning experience that is both meaningful and contextually grounded. In Islamic Higher Education Institutions (IHEIs), ethnoscience-based learning has been shown to enhance student engagement by connecting academic content to students' lived experiences and cultural backgrounds. Research indicates that this approach also deepens contextual understanding, as students are able to relate scientific principles to familiar environmental and cultural practices. Furthermore, it strengthens cultural identity by valuing indigenous knowledge systems as legitimate sources of understanding alongside modern science. The integration of local wisdom into Islamic school curricula contributes not only to academic development but also to the formation of ethical awareness, social sensitivity, and interpersonal skills, which are essential components of holistic education. Culturally responsive pedagogy, when implemented systematically, extends beyond simple content adaptation. It requires comprehensive institutional support, including continuous teacher training to enhance pedagogical competence, strong community partnerships to ensure relevance and authenticity, and decentralised curriculum governance that allows flexibility for local adaptation. Through these combined efforts, education becomes more inclusive, contextual, and aligned with both Islamic values and cultural diversity (Gay, 2010).

Existing Integrated Learning Models and Frameworks

Several extant models and frameworks inform the proposed SIC-ILM Framework. These are critically synthesized in Table 1.

Table 1. Major Themes and Key Findings from Reviewed Literature

Theme	Key Theoretical Sources	Central Construct	Main Findings	Limitations
Islamization of Knowledge	Al-Faruqi (1982); Al-Attas (1991); Zarkasyi (2025)	Tawhidic epistemology; <i>adab</i> ; <i>ijtihad</i>	All knowledge must be anchored in Islamic worldview; integration requires epistemic reconstruction, not mere additive approach	Primarily philosophical; limited operational detail (Al-Attas, 1991)
Science-Religion Integration	Wahyu et al. (2020); TUSED (2020)	Interdisciplinary curriculum; integrated paradigm	Effective integration operates at philosophical, methodological, material, and strategic levels; concentric curriculum design recommended	Discipline-specific; limited to science education (Wahyu et al., 2020)

Theme	Key Theoretical Sources	Central Construct	Main Findings	Limitations
Islamic Education Management	Muhaimin (2015); IJIE (2024)	POAC management functions; Islamic management ethics	Quality management (planning, organising, implementing, evaluating) is the primary determinant of learning quality; leadership and HR are critical	Descriptive; lacks integration with pedagogical theory (Munir et al., 2024)
Cultural-Responsive Pedagogy	Gay (2010); Ladson-Billings (1994); Indonesian CRP studies	Cultural competence; local wisdom; ethnoscience	CRP increases engagement and relevance; requires teacher capacity and institutional support; constrained by standardised assessment regimes	Implementation gaps in formal IHEIs (Sari & Rahman, 2024)
Integrated Curriculum Models	STEAM-Islamic (2025); Ethnoscience-Islamic (2025)	Value-based learning; interdisciplinary integration	Flexible curriculum, teacher collaboration, value-based approach, and training are essential; Islamic STEAM shows promise for holistic outcomes	Context-specific; limited to elementary/secondary levels (Yuliani et al., 2025)
Holistic Education in HE	Psikohumaniora (2024); Tarbawy (2025); Edunesia (2026)	<i>Insan kamil</i> ; integration as normative-operational paradigm	Integration must be simultaneously philosophical and operational; holistic education improves academic, social, and spiritual outcomes	Theoretical diversity; lacks unifying management framework (Zulfikri & Ramadhan, 2026)

Key Dimensions of the SIC-ILM Framework

The thematic synthesis reveals five interlocking dimensions that constitute the proposed framework for integrating knowledge, culture, and Islamic values in a comprehensive educational system. Each dimension is designed to function in a mutually reinforcing way, ensuring that the integration process is not fragmented, but holistic, meaningful, and transformative in nature.

Dimension 1: Tawhidic Epistemological Foundation: All forms of knowledge, whether

scientific, cultural, or normative, are understood to be ontologically unified under the principle of *tawhid* (the oneness of God). This foundational dimension serves as the axiomatic centre of the entire framework, meaning that every form of learning is grounded in a unified worldview. As a result, integration is not merely a technical combination of disciplines, but a deep transformation of how knowledge is understood and applied. This view is supported by Al-Faruqi (1982), Al-Attas (1991), and Zarkasyi (2025), who emphasize that Islamic epistemology must guide all intellectual activity.

Dimension 2: Science-Islam Integration Processes: The integration between scientific knowledge and Islamic teachings is operationalized through a structured four-level process, consisting of philosophical, methodological, material, and strategic integration. This approach ensures that Qur'anic epistemology and empirical scientific inquiry are treated as complementary systems rather than competing paradigms. The integration is implemented through an interdisciplinary curriculum that encourages dialogue between revelation-based knowledge and modern science (Ramadina et al., 2025; Wahyu et al., 2020; Zulfikri & Ramadhan, 2025).

Dimension 3: Cultural-Contextual Mediation: Local cultural wisdom, indigenous knowledge systems, and ethnoscientific traditions function as important mediators in the learning process. This dimension ensures that education is not detached from social reality but remains rooted in local cultural contexts. It prevents the framework from becoming culturally imperialistic and instead promotes community-based and culturally responsive education (Subekti & Hilmy, 2024).

Dimension 4: Integrated Learning Management Functions: The management of integrated learning is structured through an enhanced POAC cycle: planning, organizing, actuating, and controlling. In the planning stage, educators design integration goals, curriculum maps, and learning outcomes. Organizing involves allocating resources and building collaborative academic structures. Actuating refers to the implementation of culturally and Islamically grounded teaching strategies, while controlling focuses on evaluating outcomes based on holistic and multidimensional indicators of success (Muhaimin, 2015).

Dimension 5: Transformative Educational Outcomes: The ultimate goal of this framework is the formation of *insan kamil* (the complete human being). This ideal individual embodies knowledge (*'alim*), devotion (*'abid*), purposeful action (*mujahid*), and stewardship of the earth (*mukhalifah*). These outcomes are comprehensive and cannot be reduced to standardized academic performance alone, as they include spiritual, intellectual, and social development dimensions (Al-Attas, 1991).

Relationships Among Framework Components

The five dimensions operate in an integrated, iterative, and mutually reinforcing system. The tawhidic epistemological foundation functions as the normative core from which the entire framework radiates. The science-Islam integration processes and cultural-contextual mediation constitute the substantive content architecture of learning, determining what is integrated and how it is contextualised. The management functions constitute the operational architecture, determining how the integration is planned, resourced, executed, and evaluated. The transformative educational outcomes function simultaneously as the terminal goal of the framework and as formative feedback data that recursively improve subsequent management cycles (Ismail et al., 2025).

Critically, the three substantive dimensions—epistemological foundation, science-Islam integration, and cultural mediation—are not sequential processes but concurrent and interdependent components of a unified framework. Each dimension continuously interacts with and reinforces the others, forming a dynamic system of knowledge integration. In this sense, the relationship among them is co-constitutive rather than hierarchical or linear. Science integration without a strong Islamic epistemological grounding risks falling into secular rationalism, where knowledge is detached from spiritual and moral foundations. Conversely, Islamic knowledge integration without cultural mediation may lead to abstract universalism that fails to engage with local realities and lived experiences. Meanwhile, cultural integration without scientific rigor can result in parochialism, limiting intellectual development and critical inquiry. Therefore, balance among these three dimensions is essential to maintain a holistic educational approach. The management functions within the framework play a crucial role in ensuring that this triadic

integration is not only conceptual but also institutionally sustained. Through systematic planning, implementation, and evaluation, educational institutions can continuously refine and improve the integration process. This ensures that the learning system remains adaptive, contextually relevant, and aligned with both academic standards and Islamic values, ultimately strengthening the quality of Islamic higher education (Muhaimin, 2020).

Theoretical and Practical Implications

Theoretically, the SIC-ILM Framework makes a significant contribution to the growing body of literature on integrative Islamic education by offering a multi-dimensional, operationally specific, and philosophically grounded conceptual architecture. This framework moves beyond the limitations of traditional single-domain models, which often focus only on either philosophical foundations or technical implementation without fully integrating both aspects in a coherent system. By synthesizing diverse intellectual traditions, the SIC-ILM Framework brings together Al-Faruqi's methodological pragmatism, which emphasizes structured integration of knowledge; Al-Attas's ontological depth, which highlights the unity of knowledge within an Islamic worldview; Gay's cultural responsiveness, which ensures that education remains sensitive to local cultural contexts; and contemporary management science, which provides practical tools for institutional effectiveness and organizational improvement. Through this synthesis, the framework establishes a comprehensive approach that bridges theory and practice in Islamic higher education. It provides not only conceptual clarity but also operational guidance for curriculum design, learning management, and institutional development. As a result, it contributes to a more holistic understanding of education that aligns intellectual, spiritual, cultural, and managerial dimensions into a unified and coherent system of Islamic educational thought (Torraco, 2016).

Practically, the framework serves as a comprehensive guide for Islamic Higher Education Institutions (IHEIs) in implementing curriculum reform, enhancing faculty development, strengthening institutional policy, and improving learning assessment systems. It provides a structured direction for aligning educational practices with the principles of integrated learning that combine science, Islamic values, and cultural contexts in a coherent manner. The framework further implies that effective integrated learning management cannot be achieved through superficial adjustments alone. It requires systemic and transformative change within the institution. This means that integration should not be limited to simply inserting Islamic or cultural content into existing subjects, but should involve a fundamental redesign of the entire curriculum architecture. Such redesign ensures that knowledge is organized in an interconnected and meaningful way rather than fragmented into separate disciplines. In addition, the transformation must extend to pedagogical culture, where teaching and learning practices reflect integrated and value-based approaches. Institutional governance must also be restructured to support collaboration, innovation, and accountability. Therefore, the framework emphasizes a holistic reform that reshapes not only what is taught, but also how it is taught and how institutions are managed (Nugraha et al., 2024).

Proposed Conceptual Framework

The Science-Islam-Culture Integrated Learning Management (SIC-ILM) Framework is a comprehensive conceptual model that explains how learning in Islamic Higher Education Institutions (IHEIs) can be managed in a purposive, systematic, and holistic manner. It emphasizes the integration of scientific knowledge, Islamic values, and cultural contexts as interconnected elements that collectively shape educational processes and outcomes. Within this framework, education is understood not merely as the transmission of information, but as a transformative process that develops worldview, strengthens character, and nurtures social responsibility among learners. By situating knowledge within a value-based and culturally responsive structure, the framework seeks to ensure that education contributes meaningfully to both intellectual growth and moral development.

The SIC-ILM framework is structured into five interrelated components, namely: (1) Core Principles, (2) Management Functions, (3) Integration Processes, (4) Supporting Factors, and (5) Expected Educational Contributions. These components operate in a continuous and dynamic

system of educational development, ensuring that each aspect reinforces the others. The Core Principles serve as the philosophical foundation, while Management Functions guide operational implementation. Integration Processes ensure the harmonization of science, Islam, and culture in learning activities, whereas Supporting Factors provide institutional and environmental conditions necessary for success. Finally, Expected Educational Contributions represent the intended outcomes of the framework, including intellectual competence, ethical awareness, and cultural sensitivity.

The framework is grounded in five normative principles derived from extensive synthesis of academic literature. The first principle is Tawhidic Unity (Wahdaniyyah), which asserts that all knowledge is fundamentally unified under the ontological oneness of truth in Islamic epistemology. This principle ensures that knowledge integration is not fragmented but conceptually coherent. The second principle is Balanced Rationality (Tawazun), which emphasizes that reason and revelation are complementary sources of knowledge. Neither is considered superior; instead, both are harmonized within the learning process to produce balanced intellectual development.

The third principle is Contextual Relevance (Siyaqiyyah), which stresses the importance of aligning learning with the cultural, social, and environmental contexts of students. This ensures that education remains meaningful, applicable, and responsive to real-life conditions. The fourth principle is Purposive Formation (Istiqamah), which highlights that the ultimate aim of education is the formation of *insan kamil*, or the complete human being. This includes not only cognitive achievement but also moral integrity, spiritual awareness, and social responsibility. The fifth principle is Managerial Accountability (Amanah), which positions educational institutions as trustees responsible for managing learning processes with honesty, transparency, and continuous improvement. Together, these five principles form the philosophical backbone of the SIC-ILM framework, guiding its implementation in Islamic higher education systems. They ensure that educational practices are not only efficient and structured but also ethically grounded and spiritually meaningful. Through this integrated approach, the framework aspires to produce graduates who are intellectually capable, morally responsible, and culturally aware, thereby contributing positively to society while remaining rooted in Islamic values.

Management Functions

The SIC-ILM Framework structures learning management through four integrated functions:

1. **Integrated Planning:** Curriculum goals, content maps, and learning strategies are co-designed by interdisciplinary teams that include science educators, Islamic scholars, cultural practitioners, and community stakeholders. Planning explicitly maps the triadic integration of science, Islamic values, and cultural knowledge across all courses and learning activities (Muhaimin, 2015; Sari et al., 2025).
2. **Collaborative Organising:** Faculty are organised into interdisciplinary teaching teams; resources (textbooks, digital media, cultural materials) are curated for integration quality; institutional policies are aligned to support, not obstruct, triadic integration (Munir et al., 2024).
3. **Transformative Implementing:** Pedagogy is culturally responsive, epistemologically pluralist, and value-laden. Instructional approaches include ethnoscience-based inquiry, Qur'anic hermeneutics applied to disciplinary content, project-based learning grounded in local community challenges, and reflective dialogue on the Islamic implications of scientific findings.
4. **Multi-dimensional Evaluating:** Assessment frameworks capture not only academic achievement but also Islamic value internalisation, cultural competence, critical thinking, and community engagement. Evaluation data are fed back into the planning cycle to ensure continuous improvement.

Integration Processes

The triadic integration of Science, Islam, and Culture proceeds through three sequential yet iterative processes:

1. **Epistemological Alignment:** Identifying points of convergence and tension between scientific paradigms, Islamic epistemology, and cultural knowledge systems.

2. Curricular Synthesis: Designing learning materials, modules, and activities that substantively weave the three knowledge domains into coherent, contextually meaningful learning experiences.
3. Pedagogical Actualisation: Implementing integrative instructional strategies that help students actively construct integrated knowledge, values, and cultural identity through guided inquiry, reflection, and community engagement.

Supporting Factors

The framework identifies six institutional and contextual conditions that enable effective SIC-ILM:

1. Transformational and visionary academic leadership.
2. Competent, interdisciplinary, and continuously trained faculty.
3. Integrated and flexible curriculum governance structures.
4. Adequate digital and physical learning infrastructure.
5. Community and stakeholder partnership (including local cultural leaders and religious scholars).
6. Institutional policy alignment with national Islamic higher education frameworks (e.g., KKNI, SNPT in Indonesia).

Expected Educational Contributions

The SIC-ILM Framework aims to produce graduates who embody the following multi-dimensional competencies:

1. Scientific Literacy: Critical understanding of empirical knowledge and its methods.
2. Islamic Moral Character (Akhlaq Karimah): Internalised Islamic values including honesty, justice, accountability, and compassion.
3. Cultural Identity and Competence: Rootedness in local cultural heritage and the capacity for intercultural dialogue.
4. Integrative Reasoning: The ability to synthetically reason across disciplinary, epistemological, and cultural boundaries.
5. Civic and Civilisational Responsibility: Commitment to contributing to community development and the advancement of Islamic civilisation (hadarah Islamiyyah).

Narrative Description and Future Applications

The SIC-ILM Framework is best understood as a dynamic and recursive system rather than a linear model of educational management. At its core lies the tawhidic epistemological principle, which serves as the foundational axis that unifies all forms of knowledge within an Islamic worldview. From this core, the framework expands outward through interconnected layers of management functions and integration processes, ensuring that scientific knowledge, Islamic values, and cultural contexts are continuously harmonized within learning activities. This outward movement is not isolated but is continuously supported by institutional enabling factors such as leadership, policy, resources, and academic collaboration. These supporting elements ensure that the integration process remains stable, sustainable, and contextually relevant within Islamic higher education institutions. The entire system is ultimately directed toward transformative educational outcomes, which include intellectual development, moral formation, and cultural awareness. Importantly, the SIC-ILM Framework operates in a feedback loop. Educational outcomes are not treated as final products but as evaluative evidence of the quality of integration achieved. These outcomes are then fed back into the management cycle, informing reflection, assessment, and continuous improvement. Through this iterative process, the framework remains adaptive, responsive, and continuously refined in order to enhance the quality of integrated Islamic education over time (Ismail et al., 2025).

As a conceptual framework, SIC-ILM provides a robust theoretical scaffold that supports multiple directions of academic and practical development in Islamic higher education. First, it enables the development of empirically testable models of integrated learning management, allowing researchers to move from conceptual ideas to measurable and verifiable educational practices. Second, it facilitates the design of context-specific curriculum integration instruments that can be adapted to different institutional needs while still maintaining the core principles of the framework. Third, SIC-ILM supports comparative institutional research across various Islamic

Higher Education Institutions (IHEIs) in different regions, such as Indonesia, Malaysia, Pakistan, and the Arab world. This comparative dimension allows scholars to examine similarities, differences, and best practices in implementing integrated learning systems. Fourth, the framework contributes to the formulation of national and institutional policies related to curriculum integration in Islamic higher education, ensuring that educational reforms are grounded in a coherent philosophical and operational foundation. Furthermore, researchers can operationalize the five dimensions of SIC-ILM into measurable constructs for empirical investigation. This can be done through the use of survey instruments, document analysis, classroom observation, and structured interview protocols. Such methods are suitable for both mixed-methods and quantitative research designs, enabling a comprehensive understanding of how integrated learning management is implemented in real educational contexts and how it impacts teaching and learning outcomes (Thomas & Harden, 2008).

Conclusion

This article has synthesised literature across four intersecting domains — learning management, science integration, Islamic educational philosophy, and cultural-responsive pedagogy — to develop the Science-Islam-Culture Integrated Learning Management (SIC-ILM) Framework. Five core dimensions were identified: tawhidic epistemological foundation, science-Islam integration processes, cultural-contextual mediation, integrated management functions, and transformative educational outcomes. The synthesis revealed a significant gap in the existing literature: the absence of a unified, operationally specific, and philosophically grounded framework that simultaneously addresses the managerial and substantive dimensions of triadic integration in IHEIs. Theoretically, the SIC-ILM Framework advances the field by bridging al-Faruqi's Islamization of Knowledge methodology, al-Attas's tawhidic ontology, Gay's culturally responsive pedagogy, and contemporary educational management theory into a coherent, multi-dimensional conceptual architecture. It positions integration not as a supplementary curricular strategy but as the fundamental epistemological and managerial orientation of Islamic higher education. Practically, the framework implies that achieving genuine Science-Islam-Culture integration requires systemic change at all institutional levels: redesigned curriculum architecture, interdisciplinary faculty structures, culturally grounded pedagogical approaches, multi-dimensional assessment frameworks, and transformational institutional leadership. Policymakers in Indonesian, Malaysian, and other Islamic national higher education systems can use this framework to evaluate existing integration policies and design more holistic curriculum standards. Future research should: (1) empirically test the SIC-ILM Framework through quantitative and mixed-methods studies examining the relationships among its five dimensions and their effects on graduate outcomes; (2) develop validated instruments for measuring integration quality across the framework's components; (3) conduct comparative institutional research across different IHEI contexts and national systems; (4) investigate faculty readiness and professional development needs for integrated teaching; and (5) examine the role of digital technology — including AI-assisted learning and e-learning platforms — as an enabling infrastructure for SIC-ILM implementation.

References

- Al-Attas, S. M. N. (1991). *The concept of education in Islam: A framework for an Islamic philosophy of education*. ISTAC.
- Al-Faruqi, I. R. (1982). *Islamization of knowledge: General principles and work plan*. International Institute of Islamic Thought (IIIT).
- Al hamdani, D., & Yousif, J. H. (2025). Artificial Intelligence Revolution for Enhancing Modern Education Using Zone of Proximal Development Approach. *Applied Computing Journal*, 386–398. <https://doi.org/10.52098/acj.20255239>
- Azra, A. (2020). Integrasi ilmu dan agama: Interpretasi dan implementasi di perguruan tinggi Islam [Integration of science and religion: Interpretation and implementation in Islamic universities]. In *Kencana*.

- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Gay, G. (2010). *Culturally responsive teaching: Theory, research, and practice* (2nd ed.). Teachers College Press.
- Hersey, P., & Blanchard, K. H. (1982). *Management of organizational behavior: Utilizing human resources* (4th ed.). Prentice-Hall.
- Hidayaturrahman, M., Sudarman, S., Husamah, H., & Kusumawati, E. (2020). *Integrating science and religion at Malaysian and Indonesian higher education*. Southeast Asia Educational Integration Studies. University of Muhammadiyah Malang.
- Ismail, I., Arsyad, J., & Budianti, Y. (2025). The Concept of Islamization of Knowledge According to Hamid Fahmy Zarkasyi. *Urwatul Wutsqo: Jurnal Studi Kependidikan Dan Keislaman*, 14(3), 1373–1783. <https://doi.org/10.54437/urwatulwutsqo.v14i3.2569>
- Ladson-Billings, G. (1994). *The dreamkeepers: Successful teachers of African American children*. Jossey-Bass.
- Meldona, & Sulis Rochayatun. (2024). External Integration and Halal Assurance System Integrity for Achieving the Performance: Based on The Structural Contingency Theory Approach. *International Journal of Asian Business and Management*, 3(5), 679–700. <https://doi.org/10.55927/ijabm.v3i5.11745>
- Minsih, M., Lawton, M., Sudarmilah, E., Rahmawati, F. P., Mujahid, I., & Sari, A. Y. (2024). Integration of holistic education concepts in higher education to building mental health-friendly campuses: Case study from Indonesia. *Psikohumaniora: Jurnal Penelitian Psikologi*, 9(2), 303–320. <https://doi.org/10.21580/pjpp.v9i2.23056>
- Muhaimin, M. (2015). *Manajemen pendidikan: Aplikasinya dalam penyusunan rencana pengembangan sekolah/madrasah [Educational management: Its application in preparing school/madrasa development plans]*. Prenada Media.
- Muhaimin, M. (2020). Pendidikan Lingkungan Hidup dalam Perspektif Islam [Environmental Education from an Islamic Perspective]. *Syaikhuna: Jurnal Pendidikan Dan Pranata Islam*, 11(1), 64–78. <https://doi.org/10.36835/syaikhuna.v11i1.3844> [In Indonesian]
- Munir, M., Barizi, A., & Miftahul, H. (2024). Islamic education management: Integration of holistic approaches in formal and non-formal education. *Munaddhomah: Journal of Educational Management*, 5(4). <https://doi.org/10.31538/munaddhomah.v5i4.2772>
- Nugraha, R., Yusuf, M., & Aziz, A. (2024). Islamic education management in the 21st century: Challenges and opportunities. *International Journal of Teaching and Learning*, 2(4). <https://doi.org/10.59890/injotel.v2i4.321>
- Ramadina, E., Naim, N., & Akhyak, A. (2025). Models of Integrating Religion and Science in Islamic Religious Education Learning. *IJoIS: Indonesian Journal of Islamic Studies*, 6(2), 123–132. <https://doi.org/10.59525/ijois.v6i2.1186>
- Sari, H., Abdullah, I., & Kurniawan, A. (2025). Integrating Dewey's correlation theory with tauhidic epistemology in developing an Islamic education curriculum model. *TARBAWY: Indonesian Journal of Islamic Education*, 12(2). <https://doi.org/10.17509/t.v12i2.92473>
- Subekti, S., & Hilmy, M. (2024). Constructing Education in Sustaining Islamic Values Based on Local Culture Among the Fisherfolk Community. *Al-Hayat: Journal of Islamic Education*, 8(2), 711. <https://doi.org/10.35723/ajie.v8i2.575>
- Terry, G. R. (1953). *Principles of management*. New York: Richard D.
- Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC Medical Research Methodology*, 8(1), 45. <https://doi.org/10.1186/1471-2288-8-45>

- Torraco, R. J. (2016). Writing integrative literature reviews: Using the past and present to explore the future. *Human Resource Development Review*, 15(4), 404–428. <https://doi.org/10.1177/1534484316671606>
- Wahyu, R., Masyithah, D., & Sutrisno, S. (2020). Reconstructing distinction pattern of science education curriculum in Indonesian Islamic universities: An integrated paradigm for science and religion. *Turkish Journal of Science Education*, 17(2). <https://doi.org/10.36681/tused.2020.26>
- Yuliani, T., Fauzi, A., & Aziz, M. (2025). The urgency of Islamic ethnoscience-based science learning in Islamic higher education. *Munaddhomah: Journal of Educational Management*, 6(3). <https://doi.org/10.31538/munaddhomah>
- Yuliani, W. (2018). Metode Penelitian Deskriptif Kualitatif dalam Perspektif Bimbingan dan Konseling [Qualitative Descriptive Research Methods in the Perspective of Guidance and Counseling]. *QUANTA: Jurnal Kajian Bimbingan Dan Konseling Dalam Pendidikan*, 2(2), 83–91. <https://doi.org/10.22460/q.v2i2p83-91.1641> [In Indonesian]
- Zulfikri, A., & Ramadhan, S. (2025). Integrative–holistic paradigm as a transdisciplinary model of 21st century Islamic education. *Al-Mutaliyah: Journal of Islamic Education Research*, 6(1). <https://doi.org/10.51700/mutaaliyah.v6i1.1419>



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