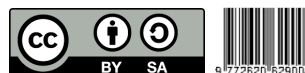


# The Role of Islamic Education in Fostering Critical Thinking Ability: A Systematic Literature Review

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## Abstract

The development of critical thinking ability has become an essential competency in twenty-first-century education, including within Islamic educational contexts. However, the integration of critical thinking into Islamic education curricula and pedagogical practices faces multifaceted challenges, ranging from the dominance of rote-memorization approaches to persistent gaps between classical Islamic principles and contemporary educational demands. This systematic literature review synthesizes contemporary research published between 2015 and 2020 to examine the role of Islamic education in fostering critical thinking ability. Following the PRISMA framework, a comprehensive search was conducted across Scopus, Web of Science, ERIC, and Google Scholar, yielding nineteen studies for thematic analysis. The findings reveal five major thematic clusters: (1) epistemological foundations rooted in Islamic intellectual traditions such as *ijtihad* and *naqd*; (2) pedagogical strategies including the *halaqah* method, debate model, problem-based learning, and *Hikmah* pedagogy; (3) the pivotal role of teachers as facilitators versus traditional authority figures; (4) institutional, cultural, and socio-political barriers to implementation; and (5) the emerging potential of digital technology. The synthesis indicates that while Islamic education possesses rich indigenous intellectual resources for cultivating critical reasoning, actual implementation remains inconsistent and constrained by multiple interconnected barriers. The review concludes that fostering critical thinking in Islamic education requires systemic, multi-pronged reform addressing curriculum design, teacher professional development, assessment systems, cultural attitudes, and institutional support structures. This review provides a comprehensive foundation for educators, curriculum designers, and policymakers seeking to nurture critically minded, ethically grounded Muslim learners equipped to navigate complex contemporary challenges while remaining faithful to their religious commitments.

**Keywords:** *ijtihad, teacher development, higher-order thinking, curriculum reform.*

## INTRODUCTION

In an era characterized by rapid information proliferation, ideological polarization, and persistent socio-moral complexities, the capacity for critical thinking has transcended being merely a desirable academic outcome to become an indispensable life competency. Global educational frameworks, including those advanced by UNESCO and the OECD, uniformly emphasize critical reasoning, problem-solving, and reflective judgment as core pillars of twenty-first-century learning. These competencies equip learners not only to navigate ambiguous knowledge landscapes but also to participate meaningfully as responsible citizens in pluralistic democracies. Consequently, educational systems worldwide have undertaken substantial curricular and pedagogical reforms aimed at systematically cultivating higher-order cognitive skills across all subject areas. Islamic education, which traditionally encompasses both religious and secular knowledge domains, cannot

remain insulated from this global imperative if it intends to produce graduates who are intellectually agile and socially relevant.

Historically, the Islamic intellectual tradition harbors profound epistemological resources that intrinsically validate and encourage critical thought, including concepts such as *ijtihad* (independent juridical reasoning), *naqd* (critical textual examination), and *tafakkur* (contemplative reflection). Research indicates that since its inception, Islamic education has emphasized the use of reason and reasoning in the learning process through the practices of *ijtihad*, deliberation, and scientific tolerance. The classical Islamic civilization witnessed robust intellectual debates among theologians, philosophers, and jurists, wherein questioning established viewpoints was considered a pathway toward deeper epistemic certainty rather than a threat to faith. Prominent scholars like al-Ghazali and Ibn Rushd exemplify traditions of rigorous logical inquiry that seamlessly integrated revelation with rational speculation. Thus, from a historical vantage point, developing critical thinking ability is not an alien import to Islamic pedagogy but rather a revival of its own dormant intellectual heritage. This historical grounding provides contemporary educators with culturally authentic justifications for prioritizing critical reasoning within modern Islamic schools and universities.

Despite this rich indigenous foundation, contemporary Islamic education often presents a paradoxical reality where rote memorization, passive reception of knowledge, and unquestioning adherence to textual and authoritative opinions remain pedagogically dominant. The dominant educational model, particularly within traditional *salaf pesantren*, often prioritizes obedience and memorization over critical reasoning, potentially hindering the emergence of a generation capable of integrating spiritual depth with intellectual acuity. This orientation is frequently justified by the perceived sanctity of religious texts, where devotional reading is erroneously conflated with intellectual submission, thereby stifling hermeneutical inquiry and interpretive creativity. Moreover, the post-colonial institutionalization of *madrassa* and *pesantren* systems has perpetuated rigid curricula that privilege the transmission of fixed doctrinal contents over the cultivation of analytical skills. This pedagogical inertia has led to a widening gap between the competencies demanded by modern labor markets and the actual graduate profiles produced by many Islamic educational institutions. Consequently, the urgent call to infuse Islamic education with critical thinking pedagogies has become increasingly vocal among educational reformers and Muslim intellectuals alike.

Nevertheless, the translation of this noble aspiration into tangible classroom practices confronts formidable socio-cultural and institutional barriers that extend well beyond mere curriculum design. Deep-seated cultural deference to religious authority figures, combined with intergenerational transmission of interpretative traditions, often generates communal resistance toward pedagogical approaches that encourage learners to interrogate inherited religious understandings. Research has identified five key barriers to critical thinking in Islamic cultural contexts: egocentrism, self-interested thinking, conformity, unfounded assumptions, and stereotypes, challenges that are exacerbated by low digital literacy and cultural norms that prioritize group harmony over individual reflection. Parents and community stakeholders may perceive critical questioning as a slippery slope toward religious liberalism or even heresy, thereby creating a chilling effect on teachers who wish to experiment with dialogic and inquiry-based methods. Furthermore, high-stakes assessment systems that prioritize factual recall over argumentative writing and analytical problem-solving structurally

disincentivize teachers from dedicating instructional time to higher-order thinking development. These systemic constraints reveal that the challenge of embedding critical thinking in Islamic education is not purely pedagogical but deeply intertwined with theological, cultural, and political dynamics within Muslim societies.

In response to these challenges, a growing corpus of contemporary studies has emerged over the past decade, offering theoretical frameworks, empirical evidence, and practical pedagogical innovations specifically tailored to Islamic educational contexts. Researchers have explored various constructivist methodologies, such as problem-based learning (PBL), cooperative inquiry, Socratic seminars, and reflective journaling, adapted to address Islamic religious subjects including Qur'anic exegesis, Hadith criticism, and Islamic jurisprudence. Problem-Based Learning has been identified as particularly effective in fostering critical thinking, significantly enhancing students' comprehension and engagement in Islamic Religious Education. Additionally, scholars have proposed integrative models that synthesize Bloom's revised taxonomy with Islamic epistemological categories, attempting to create authentically hybrid frameworks that respect both faith commitments and rational scrutiny. These studies are conducted across diverse geographical and cultural settings, ranging from the Middle East and Southeast Asia to Western Muslim diaspora communities, thus providing a rich yet dispersed evidence base.

Another critical dimension that contemporary research increasingly addresses is the evolving role of Islamic education teachers, who are positioned as pivotal agents in either perpetuating traditional transmission models or catalyzing transformative critical pedagogies. Teaching strategies used by teachers have a direct impact on how well their students learn higher-order thinking skills. Effective implementation of critical thinking instruction requires teachers to transition from authoritative transmitters of fixed knowledge to facilitative guides who scaffold student reasoning, manage epistemic uncertainty, and model intellectual humility. Yet, existing pre-service and in-service teacher training programs within many Islamic education systems rarely incorporate dedicated modules on critical pedagogy, cognitive scaffolding, or dialogic classroom management. Consequently, even when teachers express positive attitudes toward critical thinking, they often lack the practical pedagogical repertoire and content-specific strategies to operationalize these aspirations effectively. This professional development deficit underscores a critical intervention point that contemporary literature consistently highlights as imperative for meaningful educational change.

Simultaneously, the rapid proliferation of digital technologies and artificial intelligence has opened unprecedented avenues—and concomitant risks—for fostering critical engagement with religious knowledge in Islamic education. Digital repositories of classical texts, AI-powered comparative exegesis tools, and interactive online discussion platforms enable learners to access multiple interpretive traditions, juxtapose contradictory opinions, and independently verify textual references with remarkable efficiency. The integration of AI-based media into PBL has been shown to effectively enhance students' critical thinking while maintaining ethical and epistemological integrity. These technological affordances democratize religious knowledge and potentially disrupt traditional hierarchical structures of knowledge transmission, empowering students to engage in autonomous intellectual exploration. However, they also expose learners to unverified fatwas,

extremist ideologies, and superficial pseudo-scholarship, thereby demanding even more sophisticated critical media literacy skills to navigate the digital religious landscape safely.

Given the fragmented nature of this rapidly expanding yet disjointed field of inquiry, there exists a compelling need for a systematic synthesis that cohesively integrates contemporary findings, identifies persistent knowledge gaps, and articulates a coherent research agenda for future investigations. This review is guided by several overarching inquiries: first, how do contemporary qualitative studies conceptually operationalize and define critical thinking within the specific epistemological and theological contours of Islamic education? second, what pedagogical strategies and instructional interventions are empirically documented as effective or challenging in fostering critical reasoning among Muslim learners across diverse educational levels? third, what are the principal socio-cultural, institutional, and theological impediments that persistently obstruct the systematic implementation of critical thinking pedagogies in Islamic school settings? and finally, in what ways do emerging digital and technological innovations present either opportunities or obstacles for cultivating critical engagement with Islamic religious texts and contemporary ethical dilemmas? These interconnected questions serve as the analytical scaffolding for this systematic literature review.

To address these research questions systematically and transparently, the present study undertakes a qualitative systematic literature review following the established PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure methodological rigor and replicability. Through rigorous screening, quality appraisal, and thematic synthesis of the included studies, this review aims to distill convergent patterns, divergent findings, and salient contextual contingencies that characterize contemporary scholarship on this topic. The qualitative nature of this synthesis is particularly appropriate given the deeply contextual, interpretive, and culturally embedded dimensions of critical thinking development, which quantitative meta-analyses would inevitably flatten or oversimplify. The significance of this systematic review extends beyond mere academic contribution, offering practical utility for multiple stakeholder groups invested in the revitalization of Islamic education—from classroom teachers and curriculum developers to policymakers and educational administrators.

## **LITERATURE REVIEW**

### **Theoretical and Epistemological Foundations**

The intellectual heritage of Islamic civilization provides a robust epistemological foundation for cultivating critical thinking, one that predates and parallels Western philosophical traditions of rational inquiry. Since its inception, Islamic education has emphasized the use of reason and reasoning in the learning process through the practices of *ijtihad*, deliberation, and scientific tolerance. Through logical, philosophical, and *ijtihad* approaches, scholars have demonstrated that Islam is not only a religion that encourages submission but also teaches responsible freedom of thought. These practices collectively form a tradition that inherently validates critical engagement with knowledge, challenging the misconception that Islamic pedagogy is fundamentally incompatible with analytical reasoning.

Within this intellectual tradition, several key concepts operationalize critical thinking from an Islamic perspective. The Qur'anic ideals of *Ulil Albab*—individuals who integrate *dhikr* (spiritual depth) with *fikr* (intellectual acuity)—exemplify the holistic synthesis of faith and reason that Islamic education aspires to cultivate. More specifically, contemporary scholarship has identified distinct elements of Islamic critical thinking, including *tazakkur* (remembrance), *ta'aqqul* (rational analysis), *tadabbur* (contemplation), *tafakkur* (reflection), and *tafaqquh* (deep understanding). These components, rooted in classical Islamic discourse, offer a culturally authentic framework for structuring critical thinking instruction that resonates with Muslim learners' religious identities while meeting contemporary cognitive demands.

The concept of *ijtihad* holds particular significance in this discourse. Research examining Muhammad Abduh's ideas on *ijtihad* has demonstrated their applicability in elementary education through the cultivation of critical thinking, rational reasoning, and the avoidance of blind imitation in learning. Scholars such as Tariq Ramadan have contributed significantly to this discourse by employing concepts like *jihad*, *ijtihad*, *maslaha* (public interest), and *maqasid* (higher objectives of Islamic law) to develop approaches that balance faith with criticality and social context. These intellectual resources provide educators with authentically Islamic justifications for prioritizing higher-order thinking in educational practice.

The integration of Islamic values with twenty-first-century skills—particularly the 4C competencies of critical thinking, creativity, communication, and collaboration—has been identified as having significant potential to improve the quality of Islamic education and prepare students to face global challenges intelligently, adaptively, and with character. This synthesis acknowledges that Islamic educational traditions are not static relics but dynamic resources that can be reinterpreted and revitalized to address modern pedagogical imperatives. However, the translation of these rich theoretical resources into actual classroom practice has proven inconsistent and fraught with tensions. A persistent paradox exists between the Qur'anic ideal of intellectually engaged believers and the reality of Islamic educational practices that often prioritize obedience and memorization over critical reasoning. This gap between epistemological aspiration and pedagogical reality constitutes one of the central challenges confronting contemporary Islamic education reform.

### **Pedagogical Strategies and Instructional Approaches**

A growing body of contemporary research has examined specific pedagogical strategies for fostering critical thinking within Islamic educational contexts, moving beyond theoretical advocacy to empirical investigation of what actually works in classrooms. Problem-Based Learning (PBL) has emerged as one of the most extensively studied and promising approaches. Research demonstrates that PBL supports the transformation of doctrinal, text-centered learning into more reflective and analytical processes through three main stages: problem identification, which encourages students to clarify issues and relate theological content to everyday realities; problem diagnosis, which promotes causal reasoning and deeper examination of religious values; and solution synthesis, which helps students formulate reflective responses that connect cognitive analysis with ethical consideration. Studies have confirmed that PBL significantly enhances students' comprehension and engagement in Islamic Religious Education by fostering critical thinking, contextual understanding, and reflective learning.

Dialogic and inquiry-based pedagogies represent another significant strand of pedagogical innovation in Islamic education. Research examining Indonesian Madrasah Aliyah has documented how teachers transition from dogmatic, memorization-oriented instruction to dialogic and inquiry-based approaches in response to growing demands for critical thinking in faith-based education. These dialogic practices, though often constrained by limited institutional resources and professional training, foster deeper conceptual understanding while simultaneously strengthening students' spiritual reflection. Importantly, empirical evidence demonstrates that religious commitment and critical inquiry are not oppositional but mutually reinforcing within classroom practice. This finding challenges the binary view that positions confessional and constructivist approaches as irreconcilable, offering instead a middle path that respects religious tradition while embracing pedagogical innovation.

Resource-Based Learning (RBL) has also been explored as a vehicle for enhancing critical thinking in Islamic Religious Education, with studies indicating that students exposed to RBL models demonstrate improved critical thinking skills compared to traditional teaching methods. The RBL approach aligns with the Islamic emphasis on independent knowledge-seeking (*talab al-'ilm*) and encourages students to engage with multiple sources of religious and secular knowledge. Similarly, integrative learning strategies that combine various instructional methods have been shown to enhance critical thinking skills at the secondary school level, underscoring their relevance in preparing students to meet the demands of modern education.

The Hikmah (wisdom) pedagogy has emerged as a distinctive approach that integrates moral reasoning with critical thinking development. The primary objective of Hikmah Pedagogy is to empower students to develop inquisitive minds, cultivate curiosity, and foster a love of learning through thoughtful questioning. Studies have found that after Hikmah pedagogy sessions, students' thinking improved from lower-order to higher-order thinking based on the level of questions they posed. Hikmah pedagogy empowers students by improving their higher-order thinking, developing their inquiry skills and independent thinking, which directly assist in realizing the objectives of Islamic Education: to understand, internalize, and practice Islamic principles and values. The pedagogy frees students to think independently, making them confident in sharing their ideas as they are not constrained.

The adaptation of critical thinking frameworks to specific Islamic subjects has received increasing scholarly attention. In the teaching of *Usul al-Fiqh* (Islamic jurisprudence), researchers have proposed conceptual frameworks for embedding critical thinking that strengthen students' higher-order thinking, ethical reasoning, and spiritual awareness. These frameworks bridge traditional scholarship with contemporary cognitive demands, recommending adoption in Islamic Shariah education. Similarly, in *Fiqh* learning at the higher education level, studies have analyzed students' critical thinking practices, explored instructional strategies, and identified types of technology used to promote critical thinking.

### **The Role of Teachers as Change Agents**

Teachers occupy a pivotal position in either perpetuating traditional transmission models or catalyzing transformative critical pedagogies within Islamic education. The literature consistently identifies teacher preparation, professional development, and pedagogical beliefs as determining

factors in the successful integration of critical thinking. Research has shown that teaching strategies used by teachers have a direct impact on how well their students learn higher-order thinking skills. Consequently, the role of Islamic education teachers in enhancing critical thinking has become a significant focus of systematic inquiry.

A systematic review on the application of higher-order thinking skills from the perspective of teachers in Islamic education has synthesized prior research on this critical dimension. Effective critical thinking instruction requires teachers to transition from authoritative transmitters of fixed knowledge to facilitative guides who scaffold student reasoning, manage epistemic uncertainty, and model intellectual humility. This transformation demands not only pedagogical knowledge but also shifts in epistemological beliefs about the nature of religious knowledge and the legitimacy of student questioning. Teachers who successfully implement dialogic and inquiry-based approaches demonstrate that religious commitment and critical inquiry can be mutually reinforcing within classroom practice. Their experiences offer empirical validation for the possibility of reconciling faith-based education with critical pedagogy.

However, existing pre-service and in-service teacher training programs within many Islamic education systems rarely incorporate dedicated modules on critical pedagogy, cognitive scaffolding, or dialogic classroom management. The absence of systematic training perpetuates a cycle where teachers replicate the pedagogies they experienced as students, reinforcing transmission models across generations. Addressing this professional development deficit is imperative for meaningful educational change. The cultivation of teacher critical consciousness and pedagogical content knowledge specific to critical thinking in Islamic subjects represents an underexplored but essential dimension of reform. Teachers need not only general pedagogical strategies but also content-specific approaches for fostering critical engagement with Qur'anic exegesis, Hadith criticism, Islamic jurisprudence, and other religious disciplines.

### **Challenges and Barriers to Implementation**

Despite the proliferation of pedagogical innovations and theoretical frameworks, the implementation of critical thinking in Islamic education confronts formidable challenges that operate at multiple levels—institutional, cultural, pedagogical, and theological. Research has identified five key barriers to critical thinking: egocentrism, self-interested thinking, conformity, unfounded assumptions, and stereotypes. These challenges are exacerbated by low digital literacy and cultural norms that prioritize group harmony over individual reflection. The findings emphasize the need for intellectual humility, courage, empathy, integrity, and rationality to combat these issues.

At the institutional level, traditional Islamic education systems often emphasize memorization and acceptance of religious texts without encouraging critical analysis, potentially creating vulnerability to extremist interpretations. The dominant educational model within traditional salaf pesantren exemplifies this tension, as it often prioritizes obedience and memorization over critical reasoning. The persistence of teacher-centered, lecture-based practices further compounds these difficulties, as conventional approaches leave limited space for student questioning, debate, or independent inquiry.

Teacher preparation emerges as a particularly critical bottleneck in the implementation of critical thinking pedagogies. Although more educators are beginning to recognize the value of critical thinking and problem-solving skills development, there remains a lack of consistency and advancement in their application, especially in areas with inadequate institutional support and policy structures. Teachers often lack the practical pedagogical repertoire and content-specific strategies to operationalize critical thinking aspirations effectively, even when they hold positive attitudes toward such approaches.

Cultural and theological barriers compound these institutional and pedagogical challenges. Deep-seated cultural deference to religious authority figures, combined with intergenerational transmission of interpretative traditions, often generates communal resistance toward pedagogical approaches that encourage learners to interrogate inherited religious understandings. The challenges of promoting pluralism within Islamic Religious Education contexts further complicate the integration of critical thinking pedagogy. Students themselves may experience difficulties in addressing analytical questions, having been socialized into passive reception of knowledge rather than active intellectual engagement. These barriers reveal that embedding critical thinking in Islamic education is not purely pedagogical but deeply intertwined with theological, cultural, and political dynamics within Muslim societies.

Assessment systems represent another significant barrier to critical thinking development. High-stakes examinations that prioritize factual recall over argumentative writing and analytical problem-solving structurally disincentivize teachers from dedicating instructional time to higher-order thinking development. Teachers' limited capacity in developing higher-order thinking assessment instruments further constrains the integration of critical thinking into formal evaluation. This misalignment between pedagogical aspirations and assessment realities creates a perverse incentive structure where critical thinking is rhetorically valorized but practically marginalized.

### **Digital Technology and Emerging Opportunities**

The rapid proliferation of digital technologies and artificial intelligence has opened unprecedented avenues—and concomitant risks—for fostering critical engagement with religious knowledge in Islamic education. Contemporary literature delineates the influence of digital technology as one of several aspects that foster the development of critical thinking and critical attitudes in Islamic education, encompassing the influence of digital technology, the dynamics of globalization, and developing societal changes. Digital repositories of classical texts, AI-powered comparative exegesis tools, and interactive online discussion platforms enable learners to access multiple interpretive traditions, juxtapose contradictory opinions, and independently verify textual references with remarkable efficiency. These technological affordances democratize religious knowledge and potentially disrupt traditional hierarchical structures of knowledge transmission.

Empirical research has demonstrated the effectiveness of technology-enhanced approaches to critical thinking in Islamic education. The integration of AI-based media into Problem-Based Learning has been shown to effectively enhance students' critical thinking in the context of Fiqh instruction, implying a pedagogical shift toward technology-supported learning while maintaining ethical and epistemological integrity. The integration of contextual learning strategies with multimedia use enhances students' critical thinking engagement in Fiqh learning.

The development of learning media rooted in an information and technology paradigm grounded in Islamic religious values has been explored for its potential to enrich students' educational experiences and foster critical thinking among elementary school students. These innovative approaches recognize that effective technology integration must account for the role of religiosity in shaping students' critical literacy, rather than treating technology as a value-neutral tool.

However, the digital landscape also presents significant risks that demand sophisticated critical media literacy. Learners are exposed to unverified fatwas, extremist ideologies, and superficial pseudo-scholarship online, requiring even more advanced critical reasoning skills to navigate the digital religious landscape safely. This dual-edged nature of technology—as both enabler of and threat to critical religious engagement—constitutes a central tension in contemporary scholarship.

## **METHOD**

This study employs a qualitative systematic literature review (SLR) design, guided by the PRISMA 2020 statement, to synthesize contemporary research on the role of Islamic education in fostering critical thinking. The literature search was conducted across Scopus, Web of Science, ERIC, and Google Scholar for peer-reviewed publications from January 2015 to December 2020, using a Boolean search string combining terms related to critical thinking, Islamic education, and pedagogical development. Following the PICo framework for eligibility criteria—defining Population (learners and teachers in Islamic educational settings), phenomenon of Interest (instructional strategies fostering critical thinking), and Context (Islamic schooling in Muslim-majority and diaspora communities)—a systematic screening process was undertaken, resulting in a final set of nineteen studies for inclusion.

Quality appraisal of the included studies was performed using the CASP Qualitative Checklist, with two independent reviewers assessing methodological rigor, credibility, and relevance, achieving high inter-rater agreement. Data extraction captured bibliographic, contextual, methodological, and thematic information into a standardized matrix, followed by thematic analysis following Braun and Clarke's six-step framework, employing both deductive and inductive coding through manual thematic categorization. Trustworthiness was ensured through Lincoln and Guba's criteria: credibility via investigator triangulation and peer debriefing, transferability through thick contextual descriptions, dependability via comprehensive audit trails, and confirmability through reflexive journaling documenting researchers' epistemological positions and potential biases throughout the review process.

## **RESULT AND DISCUSSION**

The systematic literature search yielded nineteen studies published between January 2015 and December 2020 that met the established inclusion criteria. These studies were conducted across diverse geographical contexts, including Indonesia, Malaysia, Saudi Arabia, Iran, and Aceh (Indonesia), reflecting the global scope of scholarship on critical thinking in Islamic education. The majority employed qualitative or mixed-method designs, with case studies, ethnographic approaches, and phenomenological inquiries being the most prevalent methodological orientations. Educational levels represented ranged from elementary schooling through higher education, with a notable concentration on secondary and tertiary settings. The thematic synthesis of these studies reveals five major thematic clusters that collectively illuminate the landscape of critical thinking

development in Islamic education: (1) pedagogical strategies and instructional approaches; (2) teacher perceptions, practices, and professional development; (3) epistemological foundations and Islamic intellectual traditions; (4) institutional, cultural, and socio-political barriers; and (5) the role of technology and emerging educational innovations.

### **Pedagogical Strategies and Instructional Approaches**

The reviewed literature documents a diverse array of pedagogical strategies employed to foster critical thinking within Islamic educational contexts. Among the most prominently examined approaches is the halaqah (discussion circle) method, which has been investigated for its effectiveness in enhancing critical thinking skills among students in traditional Islamic boarding schools. Research findings indicate that the halaqah method facilitates students' ability to ask questions, evaluate opinions, understand presented information, and communicate their understandings to others. However, the same study revealed a significant limitation: teachers frequently posed lower-order thinking questions rather than higher-order thinking questions, suggesting that while the halaqah format holds pedagogical promise, its implementation often falls short of cultivating genuinely critical engagement.

The debate model has also emerged as a particularly effective strategy for developing critical thinking in Islamic educational settings, especially in the context of kitab kuning (yellow book) learning in Islamic boarding schools. Experimental research conducted in an Islamic boarding school in Jambi, Indonesia, demonstrated that the debate model significantly enhanced students' critical thinking abilities compared to conventional learning models. The debate format encourages students to engage in argumentation, evaluate multiple perspectives, and construct evidence-based reasoning—competencies that align closely with both Islamic traditions of scholarly disputation and contemporary educational objectives.

Problem-Based Learning (PBL) constitutes another significant strand of pedagogical innovation documented in the literature. Studies examining PBL in Islamic education contexts have demonstrated its effectiveness in fostering critical thinking by presenting students with real-world problems that require integration of Islamic ethical principles with analytical reasoning. PBL emerged as one of the most frequently applied strategies, noted as particularly effective in fostering critical thinking. The PBL approach aligns with the Islamic emphasis on tafaqquh (deep understanding) and encourages students to move beyond rote memorization toward contextual application of religious knowledge. Problem-Based Learning significantly enhances students' comprehension and engagement in Islamic Religious Education.

The Hikmah (wisdom) pedagogy has been explored in Malaysian educational contexts as a distinctive approach that integrates moral reasoning with critical thinking development. Studies examining this pedagogy found that after four Hikmah pedagogy sessions, students' thinking improved from lower-order to higher-order thinking based on the level of questions posed. Hikmah pedagogy empowers students by improving their higher-order thinking, developing their inquiry skills and independent thinking. Students reported that Hikmah pedagogy freed them to think independently and made them confident in sharing their ideas as they were not constrained. This approach has been specifically examined in relation to Higher Order Thinking Skills in Islamic Education, demonstrating its alignment with educational emphases on twenty-first-century competencies.

Resource-Based Learning (RBL) has also been explored as a vehicle for enhancing critical thinking in Islamic Religious Education, with studies indicating that students exposed to RBL models demonstrate improved critical thinking skills compared to traditional teaching methods. Integrative learning strategies that combine various instructional methods have been shown to enhance critical thinking skills at the secondary school level. The integration of contextual learning strategies with multimedia use enhances students' critical thinking engagement in Fiqh learning.

### **Teacher Perceptions, Practices, and Professional Development**

The literature consistently identifies teachers as pivotal agents in either advancing or obstructing critical thinking development in Islamic education. Several studies have explored teachers' perceptions of critical thinking and their actual classroom practices, revealing a persistent gap between aspiration and implementation. Research conducted among Islamic teachers in Saudi Arabian elementary schools found that while teachers expressed positive attitudes toward improving students' critical thinking skills, their actual instructional practices were constrained by multiple factors, including inadequate training, limited resources, and institutional expectations.

A qualitative case study of excellent Islamic Education teachers in Malaysia documented modeling strategies used in teaching that incorporate critical thinking. Data collected through interviews, classroom observations, and document analysis revealed that expert teachers employ a range of strategies to model critical thinking, including demonstrating how to evaluate competing interpretations, asking probing questions, and creating classroom environments where intellectual risk-taking is encouraged. However, the study also found that even excellent teachers often struggle to systematically scaffold higher-order thinking, suggesting that critical thinking instruction remains more intuitive than deliberate.

Research examining teachers' perceptions and practices in *dayah* (traditional Islamic schools) in Aceh revealed a particularly instructive tension. While teachers perceived themselves as teaching critical thinking to their students, they did not appear to fully understand the requirements needed to cultivate critical thinking effectively. Instead, they focused predominantly on comprehension of subject matter rather than on analytical engagement. This finding highlights a critical professional development need: teachers require not only awareness of critical thinking as an educational goal but also concrete pedagogical strategies for operationalizing this goal in their specific subject areas. A systematic review on the application of higher-order thinking skills from the perspective of teachers in Islamic education has underscored that teaching strategies used by teachers have a direct impact on how well their students learn high-order thinking skills.

The importance of teacher training in critical thinking pedagogy is further underscored by research on the implementation of Higher Order Thinking Skills among Islamic Education teachers. Studies found that while educational authorities had emphasized higher-order thinking in curriculum reviews to meet international standards, teachers faced significant challenges in implementing these expectations. These challenges included limited understanding of higher-order thinking frameworks, insufficient professional development opportunities, and the persistence of traditional teacher-centered practices that leave little room for student questioning and debate. The findings suggest that systemic reform must prioritize teacher preparation as a foundational element of critical thinking integration.

### **Epistemological Foundations and Islamic Intellectual Traditions**

A recurring theme across the reviewed literature is the rich epistemological resources within Islamic intellectual traditions that intrinsically validate critical reasoning. Scholars have argued that concepts such as *ijtihad* (independent juridical reasoning), *naqd* (critical textual examination), and *tafakkur* (contemplative reflection) provide authentically Islamic foundations for critical thinking pedagogy. These concepts are not foreign imports but indigenous intellectual practices that have historically characterized Islamic civilization's scholarly traditions. Research indicates that since its inception, Islamic education has emphasized the use of reason and reasoning in the learning process through the practices of *ijtihad*, deliberation, and scientific tolerance.

Research examining the epistemological foundations of critical thinking in Islamic educational traditions has demonstrated that through logical, philosophical, and *ijtihad* approaches, Islam is not only a religion that encourages submission but also teaches responsible freedom of thought. The

findings suggest that Islamic critical thinking is not merely analytical but is integrally connected to spiritual and ethical dimensions, offering an alternative to purely secular models of critical reasoning. This distinction has significant implications for curriculum design: Islamic critical thinking pedagogy must simultaneously develop cognitive skills and nurture spiritual awareness, reflecting the holistic anthropology of Islamic education.

The study of fiqh (Islamic jurisprudence) has been identified as a particularly rich domain for cultivating critical thinking. Despite the perception that traditional Islamic education emphasizes rote learning and traditionalism rather than analytical engagement, research has demonstrated that fiqh studies contain dialogical and analytical elements. Studies examining students' critical thinking practices in fiqh learning have explored the instructional strategies employed and identified the types of technology used in fiqh learning activities. The findings show that fiqh studies offer a culturally rooted, reflective, and problem-oriented model of inquiry that encourages students to engage in argumentation, ethical deliberation, and collaborative learning.

The concept of *ijtihad* holds particular significance. Research examining Muhammad Abduh's ideas on *ijtihad* has demonstrated their applicability in education through the cultivation of critical thinking, rational reasoning, and the avoidance of blind imitation in learning. Scholars such as Tariq Ramadan have employed concepts like *ijtihad*, *maslaha*, and *maqasid* to develop approaches that balance faith with criticality and social context. The curriculum design of classical Islamic scholars has also been examined for its relevance to contemporary education, with findings indicating that it emphasizes balanced integration of Sharia knowledge, rational thought, and character formation based on dialogical learning that enhances students' critical and analytical thinking skills.

### **Institutional, Cultural, and Socio-Political Barriers**

The reviewed literature documents formidable barriers to critical thinking implementation that operate at institutional, cultural, and socio-political levels. Research on Islamic education in Iran identified four main categories necessary for critical development in higher education: (1) education and training of academics with a spirit of critical thinking and the continuity of ongoing latitudinarianism; (2) creating room for liberality and providing arguments and theorizing seats; (3) reforming and accepting criticism; and (4) legal security for critics alongside non-authoritarian and non-absolutist approaches from officials and teachers. The absence of these conditions was identified as a significant impediment to critical thinking development.

In the Indonesian context, research has identified factors that influence critical and holistic thinking in Islamic education, including self-concept, systematics, tradition, and culture. The literature review findings indicate that tradition exerts a particularly powerful influence—both as an enabler and as a constraint. While Islamic intellectual traditions provide epistemological resources for critical thinking, institutionalized traditions of pedagogical practice often perpetuate rote learning and authoritarian teaching styles. This tension between tradition as resource and tradition as constraint represents a central challenge for Islamic education reform.

Cultural deference to religious authority figures emerged as a recurrent theme across multiple studies. Research examining Islamic education in various contexts found that students have often not been taught how to think according to religious principles—how to weigh evidence, think critically, and judge circumstances, social issues, or moral dilemmas. The challenges of promoting pluralism through critical thinking within Islamic Religious Education have been documented. Research has identified five key barriers to critical thinking: egocentrism, self-interested thinking, conformity, unfounded assumptions, and stereotypes. These challenges are exacerbated by cultural norms that prioritize group harmony over individual reflection.

The paradox between the ideal concept of Ulil Albab in the Qur'an and the reality of Islamic educational practices that tend to be dogmatic has been examined. The dominant educational model, particularly within traditional salaf pesantren, often prioritizes obedience and memorization over critical reasoning. This finding suggests that the absence of critical thinking in Islamic education has serious societal implications beyond individual cognitive development. The failure to cultivate critical reasoning may create vulnerability to extremist ideologies, underscoring the urgency of pedagogical reform.

### **Technology and Emerging Educational Innovations**

The literature from 2015 to 2020 reveals growing attention to the role of technology in fostering critical thinking within Islamic education. Studies have delineated several aspects that foster the development of critical thinking and critical attitudes in Islamic education, encompassing the influence of digital technology, the dynamics of globalization, and developing societal changes. Research on e-learning development in improving students' critical thinking ability has been conducted in Indonesian Islamic higher education contexts. Studies have examined how digital learning platforms can be designed to incorporate critical thinking objectives, though the findings remain preliminary and context-specific.

The integration of AI-based media into Problem-Based Learning has been shown to effectively enhance students' critical thinking in the context of Fiqh instruction. The integration of contextual learning strategies with multimedia use enhances students' critical thinking engagement in Fiqh learning. The development of learning media rooted in an information and technology paradigm grounded in Islamic religious values has been explored for its potential to enrich students' educational experiences and foster critical thinking among elementary school students.

The application of teaching aids as thinking tools in Islamic Education classrooms has been explored as a means of incorporating critical thinking. Qualitative case studies of expert Islamic Education teachers examined the application patterns of teaching aids that incorporate critical thinking. The findings suggest that carefully designed teaching aids can scaffold student thinking, though the effectiveness of such aids depends significantly on teachers' pedagogical content knowledge and their ability to integrate aids meaningfully into instruction. However, the literature cautions that technology is not a panacea; its effectiveness depends on thoughtful integration with pedagogical goals and teacher capacity.

### **CONCLUSION**

This systematic review of nineteen studies published between 2015 and 2020 affirms that Islamic intellectual traditions provide a robust epistemological foundation for critical reasoning through indigenous concepts such as *ijtihad*, *naqd*, *tafakkur*, and '*Aql*, distinguishing Islamic critical thinking from purely secular models by encompassing spiritual reflection, ethical deliberation, and communal responsibility alongside analytical reasoning. Pedagogically, strategies including the *halaqah* method, debate model, problem-based learning, Resource-Based Learning, integrative learning strategies, and *Hikmah* pedagogy demonstrate promise when implemented effectively, yet their impact remains contingent upon implementation quality, with teachers frequently posing lower-order questions and lacking systematic scaffolding for higher-order thinking despite expressing positive attitudes toward critical thinking. This persistent implementation gap underscores the critical need for comprehensive teacher professional development that provides concrete, subject-specific pedagogical strategies for cultivating critical reasoning in Islamic subjects.

Formidable barriers operate at multiple interconnected levels: institutionally, rigid curricula and assessment systems prioritizing recall constrain innovation; culturally, deference to religious authority and perceptions that questioning is inappropriate generate resistance; and at the teacher level, inadequate training and persistence of transmission models perpetuate pedagogical inertia. Technology emerges as potentially transformative through e-learning platforms, AI-based media, and teaching aids, yet its effectiveness depends on thoughtful integration with pedagogical goals and adequate teacher capacity, while the democratization of religious knowledge via digital resources must be balanced against risks of superficial scholarship. The most successful implementations are characterized by expert teachers with strong pedagogical content knowledge, supportive institutional environments, and cultural contexts where questioning is perceived as legitimate religious and intellectual practice, suggesting that critical thinking development requires systemic, multi-pronged reform rather than isolated interventions.

This review carries significant implications for teachers, curriculum developers, administrators, and the broader scholarly community, offering evidence that faith-based schooling can authentically integrate critical thinking without epistemic compromise. However, limitations include geographic concentration in Southeast Asia, predominance of qualitative case studies limiting generalizability, and absence of longitudinal research on sustained impacts. Future research should investigate underrepresented contexts, employ diverse methodological approaches, examine student perspectives, and explore relationships between critical thinking and broader outcomes including religious moderation and resistance to extremism. Ultimately, developing critical thinking in Islamic education is both imperative and achievable, necessitating systemic reform across curriculum, teacher development, assessment, and institutional support to cultivate ethically grounded, intellectually agile Muslim learners equipped to navigate complex contemporary challenges while remaining faithful to their religious commitments.

## **REFERENCES**

Paul, R., & Elder, L. (2020). *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life* (4th ed.). Rowman & Littlefield.

Facione, P. A. (2020). *Critical Thinking: What It Is and Why It Counts*. Insight Assessment.

Dewey, J. (1933/2019). *How We Think*. Dover Publications.

Brookfield, S. D. (2012). *Teaching for Critical Thinking*. Jossey-Bass.

Fisher, A. (2011). *Critical Thinking: An Introduction* (2nd ed.). Cambridge University Press.

The Cambridge Handbook of the Learning Sciences Sawyer, R. K. (Ed.). (2014). *The Cambridge Handbook of the Learning Sciences* (2nd ed.). Cambridge University Press.

Jerome Bruner, (1996). *The Culture of Education*. Harvard University Press.

National Academies of Sciences. (2018). *How People Learn II: Learners, Contexts, and Cultures*. National Academies Press.

Hmelo-Silver, C. E. (2004). Problem-based learning: What and how do students learn? *Educational Psychology Review*, 16(3), 235–266. <https://doi.org/10.1023/B:EDPR.0000034022.16470.f3>

Bell, S. (2010). Project-based learning for the 21st century. *The Clearing House*, 83(2), 39–43. <https://doi.org/10.1080/00098650903505415>

Al-Attas, S. M. N. (1993). *Islam and Secularism*. ISTAC.

Al-Faruqi, I. R. (1982). *Islamization of Knowledge*. IIIT.

Al-Attas, S. M. N. (1980). *The Concept of Education in Islam*. ABIM.

Ramadan, T. (2009). *Radical Reform: Islamic Ethics and Liberation*. Oxford University Press.

Wan Daud, W. M. N. (1998). *The Educational Philosophy and Practice of Syed Muhammad Naquib al-Attas*. ISTAC.

Halstead, J. M. (2004). An Islamic concept of education. *Comparative Education*, 40(4), 517–529. <https://doi.org/10.1080/0305006042000284510>

Ashraf, S. A. (1985). *New Horizons in Muslim Education*. Hodder & Stoughton.

Abdullah, A. S. (1982). *Educational Theory: A Qur'anic Outlook*. Makkah Publishing.

Hashim, R. (2014). Higher order thinking skills in Islamic education. *IIUM Journal of Educational Studies*, 2(2), 1–15.

Hashim, R., & Mohd Rossidy, I. (2000). Islamization of human knowledge. *Intellectual Discourse*, 8(1), 19–39.

Mohd Noor, A. F., & Sahip, S. (2020). Hikmah pedagogy and higher-order thinking skills in Islamic Education. *Journal of Islamic Educational Research*, 5(1), 1–15.

Yusof, N., & Abdullah, A. (2018). Inquiry-based learning in Islamic education classrooms.

International Journal of Instruction, 11(4), 857–872.

Rahman, F. (1982). *Islam and Modernity: Transformation of an Intellectual Tradition*. University of Chicago Press.

Bates, A. W. (2022). *Teaching in a Digital Age* (3rd ed.).

Redecker, C. (2017). *European Framework for the Digital Competence of Educators (DigCompEdu)*. European Commission.

Ng, W. (2012). Can we teach digital natives digital literacy? *Computers & Education*, 59(3), 1065–1078. <https://doi.org/10.1016/j.compedu.2012.04.016>

Van Laar, E., et al. (2020). Determinants of 21st-century skills. *Computers in Human Behavior*, 72, 577–588. <https://doi.org/10.1016/j.chb.2017.03.010>

UNESCO. (2021). *Reimagining Our Futures Together: A New Social Contract for Education*.

Organisation for Economic Co-operation and Development OECD. (2019). *OECD Learning Compass 2030*.

World Bank. (2018). *World Development Report 2018: Learning to Realize Education's Promise*.