

Fostering Students' Critical Thinking in Islamic Religious Education: A Qualitative Descriptive Study of Teachers' Practices

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Abstract: The development of students' critical thinking has become an increasingly important concern in Islamic Religious Education (IRE), as religious learning is expected to support reflective reasoning and ethical judgment grounded in Islamic values. Numerous studies emphasize the importance of integrating critical thinking into IRE; however, much of the existing literature remains conceptual or policy-oriented. Empirical evidence documenting how teachers enact critical thinking through everyday classroom practices, particularly based on qualitative classroom observations, remains limited. In this study, critical thinking is defined as students' capacity to analyze, interpret, evaluate, and reflect on religious concepts and real-life issues. Higher-order thinking skills (HOTS) are conceptualized as pedagogical and assessment-oriented strategies employed by teachers to facilitate this cognitive process. Accordingly, this study aims to explore how Islamic Religious Education teachers foster students' critical thinking through the integration of HOTS-oriented instructional strategies in classroom practice using a qualitative descriptive design. This study is limited to a specific institutional context and focuses on teachers' instructional practices rather than quantitatively measuring students' learning outcomes. However, it offers empirical insight into classroom-level implementation of critical thinking in IRE and contributes practical guidance for educators seeking to integrate HOTS while preserving the moral and spiritual objectives of Islamic education.

Abstrak: Pengembangan kemampuan berpikir kritis peserta didik menjadi perhatian yang semakin penting dalam Pendidikan Agama Islam (PAI), mengingat pembelajaran keagamaan diharapkan dapat mendukung penalaran reflektif dan penilaian etis yang berlandaskan nilai-nilai Islam. Berbagai kajian telah menekankan pentingnya integrasi berpikir kritis dalam PAI; namun demikian, sebagian besar literatur yang ada masih bersifat konseptual atau berorientasi kebijakan. Bukti empiris yang mendokumentasikan bagaimana guru mengimplemen-tasikan berpikir kritis melalui praktik pembelajaran sehari-hari, khususnya berdasarkan observasi kelas secara kualitatif, masih terbatas. Dalam penelitian ini, berpikir kritis dipahami sebagai kemampuan peserta didik untuk menganalisis, menafsirkan, mengevaluasi, dan merefleksikan konsep-konsep keagamaan serta persoalan kehidupan nyata. Keterampilan berpikir tingkat tinggi (Higher-Order Thinking Skills/HOTS) diposisikan sebagai strategi



pedagogis dan asesmen yang digunakan guru untuk memfasilitasi proses kognitif tersebut. Oleh karena itu, penelitian ini bertujuan untuk mengeksplorasi bagaimana guru Pendidikan Agama Islam menumbuhkan kemampuan berpikir kritis peserta didik melalui penerapan strategi pembelajaran berorientasi HOTS dalam praktik kelas dengan menggunakan desain deskriptif kualitatif. Penelitian ini memiliki keterbatasan karena dilakukan dalam konteks institusional tertentu dan berfokus pada praktik pembelajaran guru, bukan pada pengukuran kuantitatif capaian kognitif peserta didik. Namun demikian, penelitian ini memberikan kontribusi empiris mengenai implementasi berpikir kritis pada tingkat kelas dalam PAI serta menawarkan panduan praktis bagi pendidik dalam mengintegrasikan HOTS tanpa mengesampingkan tujuan moral dan spiritual pendidikan Islam.

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INTRODUCTION

Global reports show that *analytical and creative thinking* will dominate workforce-training agendas through 2027 (World Economic Forum, 2023). Meanwhile, Indonesian learners still struggle to move beyond rote recall. In TIMSS 2015 only 18% of Grade-8 students reached the *intermediate* reasoning benchmark, placing the country near the bottom of participating systems (Mullis et al., 2016). The pattern persisted in PISA 2022: mean scores of 359 (reading), 366 (mathematics), and 383 (science) placed Indonesia in the lowest quintile, with most students operating at Level 1–2 where higher-order analysis is minimal (OECD, 2022). National studies link this shortfall to memorisation-centred pedagogy and limited inquiry time (Gusmawan, 2021; Thomas et al., 2025; Chand, 2025). Together, these data reveal a persistent *critical-thinking gap* between curricular aspirations and classroom realities.

Scholars have proposed HOTS-oriented models for Islamic Religious Education (PAI). *Didaktika* documents how inquiry-flipped approaches raise analytical skills (Wakifah et al., 2023); a Malaysian study maps teacher-readiness bottlenecks (Asmawi & Nasir, 2025) and Nigerian work offers a Tawhid-centred critical-thinking framework (Inda et al., 2024). Indonesian cases show Problem-Based Learning and *Two Stay-Two Stray* boosting argumentation (Sukardi et al., 2024), while a CIPP evaluation finds the Merdeka Curriculum only partially effective for science reasoning (Suyanto, 2025). Yet three gaps remain: (1) micro-level descriptions of *senior-high PAI classroom tactics* are scarce; (2) the negotiation of questioning time, dialogic routines, and HOTS assessment under timetabling constraints is under-documented; and (3) the interaction between these micro strategies and structural roll-out barriers in the Merdeka Curriculum has not been synthesised.

Addressing these gaps, the purpose of this study is threefold: (1) to catalogue specific pedagogical moves employed by PAI teachers to cultivate students' analytical, evaluative, and reflective abilities; (2) to examine supporting and inhibiting conditions (resources, timetable, learner heterogeneity); and (3) to formulate practice-based

recommendations for scaling critical-thinking pedagogy across Indonesian Islamic-education contexts. Fatmawati et al. (2014) dispositional model and Bloom's revised taxonomy, we argue that critical-thinking growth hinges less on adopting HOTS labels and more on sustained dialogic interaction, iterative formative feedback, and value-laden reflection grounded in Islamic sources.

This article aims to: (1) catalogue specific pedagogical moves employed by PAI teachers to cultivate students' analytical, evaluative, and reflective abilities; (2) examine supporting and inhibiting conditions, including resources, timetable constraints, and learner heterogeneity; and (3) formulate practice-based recommendations for scaling critical-thinking pedagogy across Indonesian Islamic education contexts.

Drawing on Bloom's revised taxonomy, this study argues that the development of critical thinking depends less on the mere adoption of Higher-Order Thinking Skills (HOTS) labels and more on sustained dialogic interaction, iterative formative feedback, and value-laden reflection grounded in Islamic sources. When teachers deliberately integrate these elements, even within limited instructional time, students are able to progress from procedural recall toward evaluative and reflective reasoning, thereby actualizing the Pancasila learner profile.

Theoretically, this study extends the critical-thinking literature by proposing a context-sensitive model that integrates Islamic pedagogical principles with contemporary dialogic learning practices. Practically, it informs teacher-training programs and curriculum design teams tasked with advancing Sustainable Development Goal 4 and improving Indonesia's future TIMSS and PISA performance. Furthermore, the identification of low-cost, high-impact classroom routines provides policymakers with actionable strategies to address persistent implementation barriers, particularly the limited availability of professional development opportunities and authentic assessment instruments.

METHOD

This study employed a qualitative descriptive design using a field research approach to investigate how Islamic Religious Education teachers foster students' critical thinking skills. The qualitative approach was chosen to capture in-depth insights into the teaching practices and classroom dynamics that are not easily quantifiable but are essential in understanding the pedagogical efforts and contextual realities within the school setting. Rather than relying on statistical measurement, this approach aims to describe and interpret phenomena based on participants' experiences and naturally occurring events as they unfold in the school environment.

The research was conducted at SMAN 1 Lumajang, located on Jalan Jenderal Ahmad Yani Number 7, Lumajang Regency, East Java, Indonesia. The school was selected purposefully due to its active implementation of Islamic Religious Education and its observable emphasis on student-centered learning strategies. The site was deemed relevant to the study's objectives because it provided opportunities to observe how IRE teachers translate the national education goals, particularly the promotion of critical thinking, into classroom practice.

To obtain comprehensive data, three core data collection techniques were employed in this study: observation, interview, and documentation. Observation was conducted to obtain a direct and holistic understanding of the learning process,

teacher-student interaction, and the use of pedagogical strategies within the classroom. The researcher applied both participant observation, where involvement in certain school and class activities allowed a deeper contextual appreciation, and non-participant observation, in which the researcher remained a passive observer to record events without intervening. These two complementary observation modes enabled a balanced understanding of the explicit and implicit strategies used by teachers to stimulate students' critical thinking.

The interview technique was implemented using both structured and unstructured formats. Structured interviews were guided by a predetermined set of questions and were conducted with the Principal, teachers, and selected students to ensure consistency in the responses. Meanwhile, unstructured interviews were more open-ended and flexible, allowing the researcher to explore participants' insights, experiences, and perspectives more freely. This dual strategy allowed for both focused inquiry and emergent data collection, enriching the depth and nuance of the information obtained.

In addition to observations and interviews, the study utilized document analysis as a supplementary data collection method. Relevant documents such as lesson plans (*Rencana Pelaksanaan Pembelajaran/RPP*), school vision and mission statements, syllabi, teacher work plans, student achievement reports, photographs, and videos of teaching activities were collected and analyzed. These documents offered tangible evidence of the instructional methods and assessment practices used to support students' critical thinking development in the context of Islamic Religious Education learning.

All collected Data were analyzed using thematic analysis, involving categorization, theme identification, pattern interpretation, and alignment with research questions. Validity was ensured through triangulation across data sources and methods. Trustworthiness was established through triangulation, prolonged engagement, and member checking. Ethical approval was obtained from Syarifuddin Islamic University's Institutional Review Board (IRB No. [insert number]). Informed consent was secured from all participants, with anonymity and data confidentiality maintained throughout.

This methodological framework enabled the researcher to systematically explore and describe the intentional efforts of Islamic Religious Education teachers in promoting students' critical thinking skills. It also provided insight into the contextual factors (both supporting and inhibiting) that influence the success of these efforts within the constraints of classroom realities.

RESULTS AND DISCUSSION

RESULTS

Critical Thinking Skills in Islamic Religious Education

Mr Jadmiko Wahyudi, the senior Islamic Religious Education teacher at SMAN 1 Lumajang, emphasised during our interview that *"twenty-first-century learners must be able to interrogate information rather than swallow it whole; critical thinking is the key that lets them read Qur'anic messages with depth and apply them wisely in daily life."* His statement reflects a school-wide conviction that analytical skills are indispensable for integrating Islamic values into real-world decision-making. To nurture these skills, the Islamic Religious Education team has embedded a sequence of cognitive operations (categorising, analysing, evaluating,

and summarising) into every lesson and reinforced them through co-curricular activities such as debate clubs and Qur'anic hermeneutic circles.

Table 1. Teachers' HOTS Strategies by Cognitive Operation

Cognitive Operation	Pedagogical Strategy	Empirical Evidence (Excerpt)	Data Source
Categorizing	Visual mind maps and personal examples	"I finally see how zakat connects." – Ahmad, Grade 11	Classroom observation and interview
Analyzing	Case-matching activities and flipped homework	"Finding the hadith myself." – Siti, Grade 10	Field notes
Evaluating	Rewriting tasks and peer critique	Students revised their work after receiving feedback on logical gaps	Field notes
Summarizing	Paragraph synthesis task	"I study in my own words." – Dinda, Grade 12	Interview

Table 1 shows that teachers first guide students to sort doctrinal content into thematic clusters (e.g., ethics, jurisprudence, creed). Mr Jadmiko typically projects visual organisers, then asks learners to re-classify the same material using personal examples. *"When Pak Jadmiko lets us build our own mind-maps, I finally see how zakat, infaq, and sadaqah connect,"* explained Ahmad (Grade 11). Students who struggle receive supplementary pictorial prompts or short narrative vignettes until they can independently assign verses or hadith to the correct category.

Once foundational categories are secure, teachers introduce authentic scenarios, bullying on social media, environmental neglect, or corruption, to sharpen analytical reasoning. Learners must match each case with relevant Qur'anic or prophetic evidence that they have researched for homework. *"Finding the hadith myself meant I read the text first. In class I could argue why it applied,"* noted Siti (Grade 10). This flipped approach ensures that analysis begins before the lesson, allowing valuable face-to-face time for probing questions and peer rebuttal.

Evaluation is cultivated through a rewriting exercise in which students must restate new content in their own words, then critique each other's drafts. The teacher marks clarity, accuracy, and coherence. According to Mr Jadmiko, *"only those who really grasp the material can reformulate it convincingly; weak understanding quickly shows."* Indeed, field notes record instances where students initially copied peers, only to revise their work after guided feedback sessions that highlighted logical gaps and unsupported claims.

Lessons conclude with a two-paragraph synthesis task. Learners distil the day's discussion into concise statements that will later serve as personalised revision notes. Dinda (Grade 12) testified that *"writing my own summary makes mid-term prep easier because I study my own words, not the textbook."* Even so, about one-quarter of the class continues to struggle with drawing accurate conclusions, signalling the need for further scaffolding such as sentence starters and model summaries.

In a follow-up conversation, the principal remarked, *"Our biggest ally is the teacher's creativity; our biggest constraint is the 45-minute period."* He added that debate competitions and Qur'anic exegesis clubs *"extend thinking time beyond the timetable."* However, heterogeneous student ability and limited digital resources

remain obstacles, a point echoed by Ms Rahma, the vice-principal: *"We still juggle between providing remedial support and pushing higher-order tasks."*

Whereas previous research has typically measured critical-thinking outcomes through standardised tests or broad surveys, this study offers a fine-grained portrait of *how* an IRE teacher operationalises each cognitive process inside the Merdeka-Curriculum framework. By triangulating classroom observation, document analysis, and interview data, it reveals the micro-pedagogical moves, flipped evidence hunts, iterative rewriting, dialogic rebuttal, that transform doctrinal content into a living laboratory for critical inquiry. This practice-based insight contributes a novel, transferable template for integrating Islamic epistemology with contemporary critical-thinking pedagogy in Indonesian senior-high schools.

The Efforts of Islamic Religious Education Teachers in Developing Critical Thinking Skills

The principal of SMAN 1 Lumajang emphasized in an interview that the school's teaching staff are highly qualified. Most teachers hold a bachelor's degree, and several, including the Islamic Religious Education teacher, have obtained master's degrees. Notably, nine teachers at the school are officially recognized as "driving teachers" (*guru penggerak*), a professional certification that indicates leadership in pedagogical innovation. The principal underlined that critical thinking is not only essential for students but also a fundamental skill that teachers themselves must possess. *"If teachers cannot think critically,"* he remarked, *"how can they train students to differentiate between facts and hoaxes in today's digital era?"*

Aligned with this vision, the teacher at SMAN 1 Lumajang echoed that critical thinking is a vital competence for educators, especially in religious subjects where interpretation and application of values require precision, depth, and contextual relevance. *"Students often ask complex questions about Islam and society,"* the teacher noted. *"Our task is not just to give answers, but to model how to arrive at those answers with logical reasoning and scriptural grounding."* To support this goal, the school provides various learning facilities such as projectors, LCDs, a well-equipped library, science laboratories, a spacious mosque, green parks, and open fields. These facilities serve as important enablers of a dynamic and interactive learning environment. One student, Afif (Grade 11), confirmed this: *"Learning becomes easier when we can watch a video, discuss in the library, or even study outside in the field, it refreshes our minds and makes PAI more interesting."*

In practice, the teacher adopts a range of student-centered learning models to promote critical thinking. These include demonstrations, debates, interactive discussions, question-and-answer sessions, presentations, and the Two Stay Two Stray (TSTS) cooperative learning method. For instance, in the TSTS activity, students are grouped and asked to create themed projects such as comics or scrapbooks based on the topic being studied. Two members stay in the group to explain their work, while two others move around the room to learn from other groups. This method not only strengthens their understanding but also enhances their communication, collaboration, and reasoning abilities.

Observation in the classroom revealed that such activities are well-received by students. They display high enthusiasm during Q&A sessions and group discussions, and they are more willing to express their opinions or challenge ideas respectfully. To make learning more engaging, the teacher occasionally conducts lessons outside

the classroom, such as in the school garden or on the sports field. This creates a more relaxed yet productive atmosphere. As one student noted, *"Learning outdoors feels different. We still study seriously, but we enjoy it more, and it helps us think more clearly and express ourselves."*

Critical thinking is also promoted through lesson preparation and questioning techniques. The teacher consistently develops lesson plans and syllabi in advance, incorporating trigger questions to stimulate deeper thinking. Students are encouraged to find answers independently (often through online searches) and are then required to summarize their findings in their own words. This process helps them internalize the concepts rather than merely copying or memorizing content.

Another strategy used is the case study method, where students are presented with real-life scenarios that require them to analyze problems, connect ideas, and propose solutions. These are followed by video-based learning sessions, where relevant Islamic-themed videos are shown, and students are asked to evaluate the content and draw conclusions. According to classroom observations, these sessions significantly increase students' engagement and comprehension. Students are motivated to participate more actively when they know their contributions will be valued, often through informal recognition or grades.

These efforts reflect a deliberate shift from conventional, lecture-based instruction to active, inquiry-based learning. The teacher no longer acts merely as a transmitter of knowledge but as a facilitator who guides students in questioning, analyzing, and synthesizing Islamic values within the context of contemporary challenges. According to the teacher: *"The goal is not just to make students memorize hadiths or Qur'anic verses, but to help them understand why these teachings matter in their lives today."*

Additionally, comic illustrations, thematic projects, and group-based teaching strategies have proven effective in increasing student motivation and deepening their cognitive engagement. One photograph taken during observation shows students enthusiastically asking questions during a Q&A session, while another captures small group collaboration where students debate moral dilemmas drawn from daily life.

In sum, the success of critical thinking development at SMAN 1 Lumajang is supported by a combination of qualified and reflective teachers, adequate learning facilities, interactive pedagogical models, and a supportive school environment that values innovation. However, the IRE teacher also pointed out the limitation of instructional time and student heterogeneity as ongoing challenges: *"Not all students learn at the same pace, and with limited classroom hours, we must be very strategic with our time."*

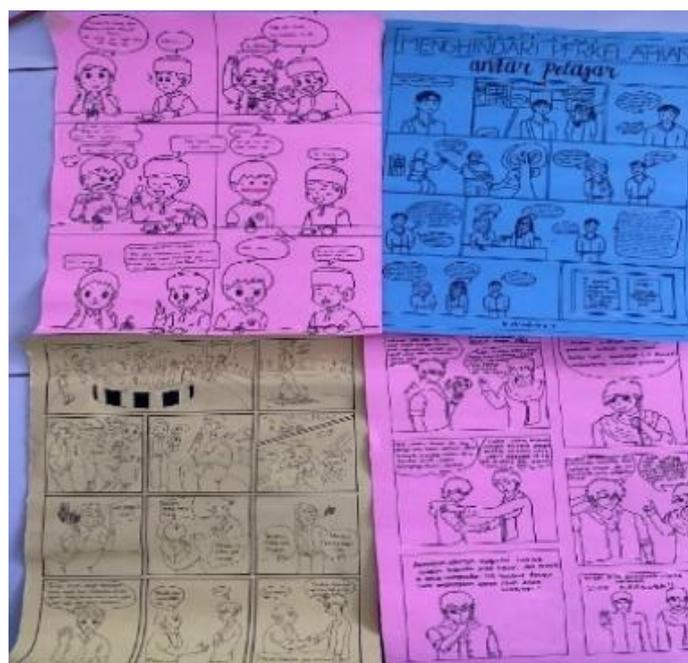


Figure 1. Comic Illustrations for TSTS Learning Model Teaching Materials



Figure 2. Picture of Enthusiastic Students During Q&A and Created in Groups

While previous studies have explored critical thinking in religious education generally, this study presents a granular and practice-oriented examination of how Islamic Religious Education teachers implement a diverse set of pedagogical techniques to cultivate students' critical reasoning skills. The integration of cooperative methods such as TSTS, case-based learning, and digital literacy through video analysis offers a novel instructional blueprint tailored to the realities of Indonesian senior high schools. The study contributes new insights into how Islamic epistemology can harmoniously coexist with 21st-century educational demands, emphasizing the teacher's role as both facilitator and model of critical inquiry in the formation of intellectually and spiritually balanced learners.

Supporting and Inhibiting Factors of Islamic Religious Education Teachers' Efforts in Developing Students' Critical Thinking Skills

In the process of fostering students' critical thinking skills, the success of instructional efforts is shaped not only by the strategies implemented, but also by the presence of supporting and inhibiting factors. At SMAN 1 Lumajang, several factors have been identified that either enhance or hinder the ability of Islamic Religious Education teachers to develop students' critical thinking capacities.

One of the primary supporting factors is the consistency and commitment of teachers in their role as educators. Effective development of students' critical thinking skills requires sustained efforts over time, and this can only be achieved through a teacher's persistence in applying appropriate methods. According to observations and interviews, the IRE teacher at SMAN 1 Lumajang, Mrs. A'yun, consistently employs student-centered approaches and maintains high expectations for student engagement. Her dedication is reflected in her structured use of discussions, presentations, and debate competitions, which are aligned with the *Profil Pelajar Pancasila (P5)* activities promoted by the Merdeka Curriculum.

A second supporting factor is the professional capacity of the teachers themselves. As emphasized by the school principal, all teachers at SMAN 1 Lumajang hold at least a bachelor's degree, and many (including the Islamic Religious Education teacher) have obtained master's degrees. Several faculty members, including Mrs. A'yun, have also been certified as *guru penggerak* (driving teachers), indicating advanced pedagogical competence. This academic background equips them with the theoretical and practical knowledge necessary to facilitate higher-order thinking in the classroom. The teacher ability to design relevant lesson plans, integrate current issues, and encourage reflective analysis is a testament to her professional readiness.

Third, the availability of supportive facilities and infrastructure significantly contributes to the learning environment. SMAN 1 Lumajang is equipped with a variety of educational resources, including a well-stocked library, projectors, LCDs, internet access, a school mosque, and open green spaces. These resources allow teachers to implement diverse instructional methods and create dynamic learning settings both inside and outside the classroom. According to students interviewed, access to these tools makes the learning process more engaging and supports independent exploration and critical inquiry.

Table 2. Factors Influencing Critical Thinking Implementation

Factor Type	Specific Condition	Impact on Instructional Practice	Evidence Source
Enabler	Teacher consistency	Dialogic routines become habitual	Brookfield's framework and classroom observations
Enabler	Professional expertise	Master's degrees and certified Islamic Religious Education teachers	Teacher certification records
Enabler	School facilities	Availability of library, ICT resources, and green spaces	Infrastructure inventory
Inhibitor	Limited time	45-minute instructional constraint	Principal interview
Inhibitor	Budget	No updates to multimedia	Vice-principal interview

	limitations	facilities	
Inhibitor	Student heterogeneity	25% of students struggle with drawing conclusions	Classroom observations

Despite these strengths, several inhibiting factors as shown in table 2 were also identified during the research. First, limited instructional time poses a significant constraint. The allotted time for Islamic Religious Education is often insufficient to cover complex content while also fostering critical thinking through discussion-based learning. As noted by the IRE teacher, *“Forty-five minutes per session is not enough when we want students to analyze, reflect, and present their thoughts meaningfully.”*

Second, the school sometimes faces budgetary limitations, which affect the consistency of extracurricular programs and the acquisition of updated learning materials. This constraint can limit the frequency of debate competitions or the ability to bring in guest speakers or facilitators who might enhance students' critical engagement.

Third, diverse student abilities present another challenge. In any given classroom, students have varying levels of academic preparedness, motivation, and communication skills. Some students are quick to participate in analysis and discussion, while others struggle with articulating their ideas. Teachers must continuously adapt their approaches to meet these diverse needs, often with limited individualized support.

Lastly, the effectiveness of teaching strategies may be reduced in certain situational contexts, such as during school examination periods, shortened schedules due to national events, or when external distractions affect student focus. In such cases, activities designed to promote critical thinking may be rushed or replaced with more didactic methods.

In summary, while SMAN 1 Lumajang benefits from strong teacher qualifications, consistent pedagogical commitment, and adequate facilities that support the development of students' critical thinking, several systemic and contextual limitations remain. These include time constraints, financial limitations, varying student capacities, and situational inefficiencies that occasionally hinder optimal implementation. Addressing these challenges will be essential for scaling and sustaining critical thinking development in Islamic Religious Education classrooms.

Table 3. Actionable Recommendations for Indonesian PAI

RQ3 Objective	Recommendation	Implementation Strategy	Expected Outcome
Scale pedagogical moves	Two Stay–Two Stray and dialogic exegesis	Weekly rotation across classes	Improved argumentation skills
Address time constraints	Flipped homework and co-curricular clubs	Establish debate clubs after school	Extended dialogic practice
Manage heterogeneity	Tiered scaffolding (visual → textual)	Provide sentence starters for struggling students	90% class participation

These findings, as synthesized in Table 3, demonstrate that Islamic Religious Education teachers at SMAN 1 Lumajang successfully operationalize critical thinking through structured HOTS strategies, despite significant implementation constraints. The pedagogical template, mindmaps, case analysis, peer evaluation, and synthesis writing, offers a replicable model that balances Islamic epistemological principles with 21st-century cognitive demands. While teacher expertise and facilities enable progress, this table also highlights that systemic barriers (time, budget, heterogeneity) require policy-level interventions to achieve scale. Collectively, this micro-level ethnography bridges the gap between Merdeka Curriculum aspirations and classroom realities, contributing an empirically-tested framework for fostering reflective, evidence-based reasoning within Indonesian PAI contexts.

DISCUSSION

Critical Thinking Skills in Islamic Religious Education

In twenty-first-century schooling, critical thinking (CT) is widely recognised as a “survival competence” that enables learners to filter abundant information and to reason ethically (Fatmawati, et al., 2014; Halpern, 1998). Observations at SMAN 1 Lumajang reveal encouraging progress: most students can now identify key ideas, formulate arguments; evaluate sources, and articulate conclusions in their own words. These practices align with the higher-order operations (analysis, synthesis, and evaluation) described in Bloom’s revised taxonomy and echoed in Facione’s disposition-skill model of CT (Facione, 2015). Nevertheless, the skill is unevenly distributed: a minority of learners remain passive, reproduce peers’ answers, or struggle to defend positions, confirming Ball & Fairlamb’s (2025) warning that CT growth requires sustained scaffolding.

Abrami et al.’s (2015) meta-analysis underscores the power of dialogue and authentic problems in raising CT effect sizes. Consistently, the findings here show that when students debate Qur’anic interpretations or analyse contemporary ethical dilemmas, they move beyond rote memorisation toward evidence-based reasoning. Kuhn (2019) further conceptualises CT as a discursive practice: learners refine thinking through iterative argumentation rather than isolated problem solving. Students’ polite rebuttals and peer critiques in Lumajang demonstrate this dialogic dimension, yet the persistence of off-task copying suggests that the metacognitive monitoring proposed by Halpern (1998) is still developing.

Teachers’ Pedagogical Efforts

The Islamic Religious Education teacher at SMAN 1 Lumajang embodies the multi-faceted facilitator described by Gamage (2022) and Wulandari (2024). Beyond transmitting Islamic doctrine, she orchestrates Two Stay Two Stray, case-study debates, and creative artefacts (e.g., comics that visualise fiqh dilemmas). These tasks operationalise Emily Ray’s CT components (analysis, inductive) deductive reasoning, and objective evaluation (Baharudin et al., 2025). By embedding HOTS indicators in every lesson plan, the teacher aligns classroom practice with national policy mandates and with Halpern’s (1998) four-part model (disposition, skills, structure, metacognition). Students’ ability to challenge one another using textual evidence illustrates the success of this alignment, while their reflective summaries mirror the “self-regulatory judgement” that Facione (2015) and Golden (2023) consider hallmarks of mature CT.

Supporting Factors

Three interlocking enablers sustain CT development. First, teacher consistency, anchored in the reflective stance promoted by Li (2024), ensures that dialogic routines are not sporadic but habitual. Second, professional expertise matters: the teacher's master's degree and *guru penggerak* certification translate into adaptive, research-informed pedagogy (Mashologu et al., 2025). Third, the school's facilities and infrastructure (library, ICT tools, mosque, green spaces) create multiple epistemic arenas where students can gather data, test arguments, and apply Islamic values to lived contexts (Mohammed et al., 2025). These findings echo Abrami et al.'s (2015) claim that authentic resources and problem contexts amplify CT gains.

Inhibiting Factors

Conversely, four constraints impede deeper implementation. Limited instructional time restricts full exploration of complex cases, an obstacle noted nationally by Hamzah et al. (2021) and internationally by Paas's, (2010) cognitive-load analysis. Budgetary limitations curtail access to up-to-date multimedia and competitive debate events. Student heterogeneity demands differentiated scaffolds that are hard to engineer within one period (Darling-Hammond, 2022). Finally, sub-optimal learning conditions (for example, afternoon fatigue) dampen reflective discourse (Mohammed et al., 2025). Halpern (1998) argues that dispositions for effortful thinking wane when learners are tired or under-resourced, a pattern observable in the less engaged cohort at SMAN 1 Lumajang.

Integrating Theory and Field Evidence

Collectively, the data affirm that dialogic, problem-centred pedagogy, long advocated by Kuhn (2019) and substantiated by Abrami et al.'s (2015) meta-analysis, can thrive in Islamic Religious Education when supported by qualified teachers and adequate learning spaces. Yet Halpern's (1998) reminder of the need for metacognitive coaching, along with Paas's, (2010) caution about cognitive overload, signals that sophisticated questioning alone is insufficient. Schools must allocate time for guided reflection, supply diverse media to accommodate varying cognitive loads, and provide professional development in adaptive feedback strategies.

This study contributes to the expanding discourse on critical thinking in Islamic education by offering a contextualized pedagogical model that integrates classical Islamic values with 21st-century educational strategies. While much of the literature emphasizes generic strategies for fostering critical thinking, this research provides an empirically grounded framework specific to Islamic Religious Education classrooms in Indonesian public schools. By connecting field practices, such as *Two Stay Two Stray*, debates, and contextual case studies, with theories from Fatmawati, et al., (2014), Halpern (1998), and Facione (2015), the study strengthens the theoretical foundation for embedding higher-order thinking skills within religious education. Moreover, it responds to the call of scholars such as Kuhn (2019) and Abrami et al. (2015) for dialogic, reflective, and metacognitively informed learning environments. The novelty lies in demonstrating how Islamic epistemology (faith, worship, morality) can function as a rich domain for developing cognitive reasoning, a perspective often underrepresented in mainstream critical thinking research.

Empirically, the research fills a gap in classroom-based studies on how critical thinking is developed through Islamic Religious Education in senior high schools. Through triangulated data (interviews, observations, and documentation) this study highlights how teachers act not merely as transmitters of religious knowledge but as facilitators of critical inquiry, navigating curricular demands and student diversity. The documentation of nuanced strategies, such as guiding students to construct summaries in their own words or conduct scriptural debates, provides replicable practices for educators seeking to foster deeper understanding rather than rote memorization. The study also uncovers key enabling and inhibiting factors, such as professional training, infrastructure, limited time, and learner heterogeneity, that influence implementation success.

CONCLUSION

Based on the results and discussion, this study concludes that Islamic Religious Education teachers at SMAN 1 Lumajang successfully foster students' critical thinking through structured Higher-Order Thinking Skills (HOTS) strategies. These strategies include categorising concepts through mind maps, analysing issues through case-matching activities, evaluating arguments through peer critique, and synthesising understanding through personalised summaries, despite significant time and resource constraints.

The teachers' pedagogical efforts play a central role in nurturing these competencies. Theoretically, this research offers an original contribution by developing an integrative framework that connects Islamic epistemology, namely *bayyinah*, *ibadah*, and *akhlak*, with Bloom's revised taxonomy. In doing so, it extends critical thinking theory into religious education contexts that remain underrepresented in mainstream scholarship.

Practically, the documented pedagogical template, including Two Stay Two Stray, dialogic Qur'anic exegesis, and tiered case analysis, provides Indonesian PAI teachers with replicable and low-cost strategies for implementing HOTS within 45-minute instructional constraints while maintaining a balance between spiritual objectives and cognitive development.

Several enabling factors have supported this advancement, including teachers' professional qualifications, participation in national teacher development initiatives, and the availability of adequate facilities and learning resources. Furthermore, these empirically grounded findings offer strategic insights for refining the Merdeka Curriculum, strengthening guru penggerak certification programs, and advancing Indonesia's commitment to Sustainable Development Goal 4. By presenting actionable and context-sensitive strategies, this study contributes to ongoing efforts to address persistent TIMSS and PISA critical thinking gaps while preserving the foundational values of Islamic education.

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