Challenges and Opportunities for Madrasah Ibtidaiyah Teachers in Fostering Students' Critical Thinking

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Abstract. This abstract presents the findings of a literature review concerning the dynamics of implementing and developing critical thinking skills (CTS) at the Madrasah Ibtidaiyah (MI) level, focusing on the central role of the teacher. The main objective of this study is to systematically identify the pedagogical, institutional, and professional challenges, and analyze the strategic opportunities available to MI teachers in facilitating students' CTS. The analysis indicates that significant challenges include (1) Teacher Metacognitive Skill Deficits: Limitations of teachers in internalizing and modeling critical thinking processes; (2) Curriculum Prescriptiveness: The demand for dense material completion inhibits the adoption of inquiry methods and reflective discussion; and (3) Institutional Conditions: Limited access to digital resources and specialized CTS training. Nevertheless, the study identifies essential opportunities, namely (1) Potential for Material Contextualization: The flexibility of religious and general subjects to be linked to contemporary issues requiring reasoning, and (2) Philosophical Support from Islamic Education: Islamic values that encourage reasoning (*ijtihad*) and wise decision-making (*hikmah*). This study concludes that a collective effort through the restructuring of professional development programs focused on Issue-Based Reflective Pedagogy is crucial to transform MI from a center of knowledge transmission into a hub for critical intellectual development.

Keywords: Critical Thinking, Madrasah Ibtidaiyah, Teacher Competency, Reflective Pedagogy, Literature Review.

INTRODUCTION

In the 21st-century educational landscape dominated by information disruption and social complexity, Critical Thinking Skills (CTS) have been globally recognized as a fundamental competency. CTS is no longer just a supplement, but an essential need for individuals to process, analyze, and evaluate data, and make rational and ethical decisions. Cultivating these skills should begin early, particularly at the primary education level.

In Indonesia, the Madrasah Ibtidaiyah (MI) institution, as an integral part of the national education system and Islamic educational institution, plays an important role in laying this cognitive foundation. However, despite the importance of CTS being recognized in the curriculum, learning practices in many Islamic elementary schools often still tend to be oriented toward knowledge transfer and rote memorization, an approach that is inherently contradictory to the spirit of developing reflective and inquiry-based thinking (Hidayat, M., Mukhtar, M., & Sari, 2022). Therefore, in-depth research on the dynamics of CTS implementation at the MI level is urgently needed.

The core of every pedagogical reform effort is the teacher. In MI (Islamic Elementary School), teachers not only carry out general curricular duties but also have a moral responsibility to integrate Islamic values that philosophically support reasoning (ijtihad) and wise decision-making (hikmah). However, the literature review indicates that MI teachers face a range of substantial challenges in facilitating students' CTS. This challenge can be categorized into three main domains:

First, Teacher Metacognitive Skill Deficit. Success in teaching critical thinking heavily relies on the teacher's ability to internalize and model the metacognitive processes themselves. If teachers are unable to reflect on their own thinking processes, they will struggle to design tasks that encourage students to do the same (Lai, 2023). Second, Curriculum Prescriptiveness. The demand to cover dense material within a limited time (a packed curriculum) often forces teachers to adopt lecture methods and hinders the implementation of inquiry-based approaches, reflective discussions, or problem-based learning, which are key elements in developing CTS (Astika, I. M., Susilo, S., & Prawoto, 2024). Third, Institutional Conditions. The learning environment in many Islamic elementary schools is still constrained by limited access to cutting-edge digital resources, as well as a lack of professional development training programs specifically designed for teachers (Suryana, A., & Setiawan, 2021). These limitations restrict teachers' capacity to implement innovative and technology-based teaching methodologies.

Despite these significant challenges, there are also unique strategic opportunities for MI. The potential for contextualizing material is one of them. Subject matter, both general and religious, has

a high degree of flexibility to be connected with contemporary issues that require critical thinking. Additionally, the Philosophical Support of Islamic Education provides a strong theological foundation for promoting analytical and rational thinking, an aspect that teachers can leverage as a pedagogical advantage (Zubaidah, S., & Habibi, 2020).

Based on a gap analysis between the urgency of CTS development and the reality of practice in MI, the main objective of this literature review is to systematically identify the pedagogical, institutional, and professional challenges faced by Madrasah Ibtidaiyah teachers, as well as to analyze the strategic opportunities available in facilitating students' CTS. This research argues that to transform MI from a center for knowledge transmission into a center for critical intellectual development, collective efforts are needed, particularly thru restructuring professional development programs focused on Issue-Based Reflective Pedagogy.

METHOD

This study employs a Systematic Literature Review (SLR) approach to analyze the challenges and opportunities faced by Madrasah Ibtidaiyah (MI) teachers in facilitating students' Critical Thinking Skills (CTS). The SLR method was chosen because of its ability to objectively and systematically identify, evaluate, and synthesize all relevant and available research evidence on a specific topic, resulting in strong and evidence-based conclusions (Gough, D., Oliver, S., & Thomas, 2023).

The Systematic Literature Review (SLR) protocol adopted in this study was systematically formulated, encompassing three essential methodological phases: Planning, which involved formulating research questions (PICO) and establishing inclusion/exclusion criteria; Execution, which focused on structured literature searches in reputable databases; and Reporting, which included data extraction, quality evaluation, and thematic synthesis to identify challenges and opportunities in developing students' critical thinking abilities.

RESULTS AND DISCUSSION

A. Challenges Faced by Elementary School Teachers in Fostering Students' Critical Thinking Skills.

The systematic literature review (SLR) successfully identified and synthesized findings addressing the dynamics of implementing Critical Thinking Skills (CTS) at the primary education level, specifically in Madrasah Ibtidaiyah (MI). The results of the thematic analysis clearly confirm that the central role of MI teachers is faced with three main categories of Challenges (Pedagogical, Institutional, and Professional) while also having two significant

Strategic Opportunities. This discussion will detail these findings, connect them to current academic literature, and explore their implications for MI educational practices. In-depth analysis identified three significant obstacles hindering MI teachers' efforts to transform classrooms into environments conducive to CTS development.

Teacher Metacognitive Skill Deficit (Professional Challenge): Consistent findings show that one of the biggest obstacles is internal, namely the limitations of MI teachers in internalizing and modeling the critical thinking process, a problem rooted in a metacognitive skill deficit (Lai, 2023).. Metacognition involves awareness and control over one's thinking processes. If a teacher is not consciously able to plan, monitor, and evaluate their own thinking strategies, they will find it difficult to design tasks and guide students thru the same process (Lai, 2023).. The SLR results show that many MI teachers understand the concept of CTS theoretically (declarative knowledge), but fail to apply it in lesson design (procedural knowledge) or adapt it flexibly (conditional knowledge) (Nurhayati et al., 2024). For example, a teacher might ask students to "think critically" without providing a clear framework for how to analyze arguments, identify bias, or evaluate evidence.

The second challenge comes from the curriculum structure itself: Curriculum Prescriptiveness (Pedagogical Challenge). MI is under double pressure: meeting national curriculum standards and integrating religious content. This results in a dense curriculum focused on covering the material (Astika et al., 2024). The pressure to cover a large amount of material hinders teachers from adopting time-consuming but essential methodologies for CTS, such as: 1) Inquiry-Based Methods: These require substantial time for students to formulate questions, collect data, and draw conclusions; 2) Reflective Discussions: These cannot be rushed, as they require time for students to process information deeply; 3) Problem-Based Learning (PBL): This requires a significant amount of time for exploration and collaboration (Hidayat et al., 2022)..

As a result, teachers were forced to revert to traditional teaching methods (lectures and memorization) for time efficiency, even tho these methods have been proven less effective in fostering CTS. Case studies show that strict time allocation is often cited by teachers as the main reason for not including higher-order thinking activities (HOTS) (Astika et al., 2024).

The third challenge is external, related to the school environment and supporting resources (Institutional Conditions and Resources). Analysis shows that many MI, especially in rural areas, face significant limitations in: 1) Access to Digital Resources: Limited access to technology devices, high-speed internet, and advanced digital education platforms that can

support CTS activities (simulations, data analysis, or research) (Suryana & Setiawan, 2021); 2) Specialized CTS Training: Institutional support for training programs focused on CTS pedagogy (e.g., creating CTS evaluation rubrics, designing open-ended tasks, or discussion-based classroom management) is often limited. The available training tends to be general and less relevant to the specific context of MI (Wahyuni & Asri, 2023). This situation creates a gap between the curriculum's expectation of developing critical students and the reality of the facilities and support received by teachers in the field.

B. Opportunities for Elementary Madrasah Teachers in Fostering Students' Critical Thinking Skills

Despite the real challenges faced, this SLR also reveals two essential strategic opportunities that MI teachers can leverage to cultivate CTS, turning obstacles into strengths. The first opportunity lies in the flexibility of religious and general subjects to be linked to contemporary issues that demand reasoning (Zubaidah, S., & Habibi, 2020). Unlike some elementary school contexts, MI (Islamic Elementary School) offers ethical and moral values that can be directly integrated with real-world problem analysis, including: 1) General Subjects: Natural Sciences (IPA) or Social Sciences (IPS) can be used as a means to discuss environmental issues, public health, or social conflicts, requiring students to analyze causes, evaluate solutions, and predict consequences; 2) Religious Subjects: Fiqh (Islamic law) or Akidah Akhlak (theology and ethics) lessons can be contextualized into modern moral dilemmas. For example, discussing the ethics of social media use or issues of religious tolerance, which forces students to apply Islamic principles (dalil) in complex and non-traditional situations. This approach transforms religious subjects from rote memorization of dogma into a source of ethical reasoning (Fikriyah & Anwar, 2021).

The second opportunity is the philosophical support inherent in Islamic education, which historically and theologically encourages reasoning (ijtihad) and wise decision-making (hikmah). The concept of ijtihad (a sincere effort to formulate laws or views from primary sources) is essentially a form of high-level critical thinking within the Islamic tradition (Aji et al., 2022).

Elementary school teachers can use these concepts as a framework for motivating and legitimizing students to dare to question (constructively), analyze evidence (premises), and formulate reasoned views. These values give authenticity to the CTS process, making it not just a Western academic skill, but also an integral part of a Muslim's spiritual and intellectual

development (Aji et al., 2022). Using prophetic stories or Islamic history that exemplify reason-based decision-making and consultation can be a powerful pedagogical tool.

C. Synthesis and Theoretical Implications

The synthesis of these findings shows that Professional Challenges (Metacognitive Deficits) and Pedagogical Challenges (Curriculum Prescriptiveness) are the most immediate obstacles that can be overcome through targeted interventions. On the other hand, Strategic Opportunities (Contextualization and Philosophical Support) provide a clear roadmap for how CTS should be taught in MI. This study concludes that collective efforts through the restructuring of professional development programs should be the main focus. This restructuring needs to shift from general knowledge-based training to an Issue-Based Reflective Pedagogy model.

This pedagogy requires teachers to: 1) Model Metacognition: Teachers are trained to explicitly demonstrate their thought processes when facing complex issues in the classroom, asking questions such as "Why do I believe this?" or "What more evidence do I need?"; 2) Integrate Contemporary Issues: Teachers are encouraged to use contextualization opportunities to design tasks centered on real-world problems, which require multidimensional analysis and ethical-religious reasoning; 3) Prioritizing Depth over Breadth: Institutions must support teachers in reducing the pressure to complete the curriculum in order to prioritize in-depth and reflective activities, even if they cover only a small portion of the material (Supriyadi & Kartika, 2023).

By combining Islamic philosophical support with issue-based learning design, MI can transform from an institution that merely transmits knowledge into a center for critical intellectual development that produces students who are ready to face the challenges of the times.

CONCLUSION

This Systematic Literature Review study clearly confirms that there is a significant discrepancy between the urgency of instilling Critical Thinking Skills (CTS) in Madrasah Ibtidaiyah (MI) students and the reality of pedagogical practices in the field. The analysis shows that MI teachers face challenges stemming from three crucial dimensions: (1) Professional, characterized by a deficit of metacognitive skills in modeling and designing critical thinking processes; (2) Pedagogical, caused by prescriptiveness and curriculum density that limits time for inquiry methods and reflective discussion; and (3) Institutional, which includes limited access to digital resources and specialized CTS training. Collectively, these obstacles reduce the potential of MI as an educational institution to merely a center for knowledge transmission. Therefore,

solutions to improve CTS in MI must be rooted in solving the structural and professional problems faced by teachers.

Despite substantial challenges, this study also identifies two unique strategic opportunities for the MI context. First, the potential for contextualization of material, which allows teachers to connect general and religious lessons to contemporary issues that demand reasoning, transforming abstraction into real relevance. Second, the philosophical support of Islamic education, which inherently promotes ijtihad (reasoning) and hikmah (wisdom) as theological foundations for the development of critical reasoning. Based on a synthesis of these findings, the study concludes that transformation efforts should focus on restructuring teacher professional development programs into an Issue-Based Reflective Pedagogy model. This recommendation is crucial to empower teachers to bridge the gap between curriculum demands and classroom realities, ultimately transforming MI into centers of intellectual development that prioritize critical thinking.

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