

HOTS-Based Learning Methodology Innovation in Islamic Religious Education: A Case Study at State Senior High School 1 Karanganyar

Muhammad Jafar Nasir^{1*}, Anita Wardani¹, Elina Intan Apriliani¹, Muhammad Zahiri²

¹Institut Islam Mambaul Ulum Surakarta, Indonesia

²Perguruan Ugama Seri Begawan, Brunei Darussalam

*email: muhammadjafarnashir@gmail.com

DOI: <https://doi.org/10.31603/tarbiyatuna.v16i2.14987>



ABSTRACT

Article Info:

Submitted:

09/10/2025

Revised:

03/12/2025

Published:

31/12/2025

The development of Higher Order Thinking Skills (HOTS) has become a key priority in contemporary Islamic Religious Education (IRE) to foster students' critical, analytical, and reflective thinking. This study aims to examine the innovation of HOTS-based learning methodologies in Islamic Religious Education at State Senior High School 1 Karanganyar. Employing a qualitative case study approach, data were collected through classroom observations, in-depth interviews with teachers and school leaders, and document analysis of lesson plans and instructional materials. The data were analyzed using an interactive model involving data reduction, data display, and conclusion drawing. The findings indicate that HOTS-based learning in IRE is implemented through problem-based learning, contextual learning activities, open-ended questioning, and reflective discussions that actively engage students in higher-level cognitive processes. However, the implementation faces several challenges, including teachers limited pedagogical competence in HOTS-oriented instruction, constraints in learning time allocation, and students varied academic readiness. Despite these challenges, HOTS-based methodology innovation contributes positively to improving students' critical thinking, learning engagement, and conceptual understanding in Islamic Religious Education. This study highlights the importance of continuous professional development and institutional support in strengthening HOTS-based pedagogical practices in secondary Islamic education.

Keywords: *Higher Order Thinking Skills; Islamic Religious Education; HOTS-Based Learning; Learning Methodology Innovation; Case Study*

ABSTRAK

Pengembangan keterampilan berpikir tingkat tinggi (Higher Order Thinking Skills/HOTS) menjadi salah satu fokus utama dalam pembelajaran Pendidikan Agama Islam (PAI) untuk mendorong kemampuan berpikir kritis, analitis, dan reflektif peserta didik. Penelitian ini bertujuan untuk menganalisis inovasi metodologi pembelajaran berbasis HOTS dalam pembelajaran PAI di SMA Negeri 1 Karanganyar. Penelitian ini menggunakan pendekatan kualitatif dengan desain studi kasus. Data

dikumpulkan melalui observasi pembelajaran, wawancara mendalam dengan guru PAI dan pimpinan sekolah, serta analisis dokumen berupa perangkat pembelajaran dan bahan ajar. Analisis data dilakukan menggunakan model interaktif yang meliputi reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa penerapan pembelajaran PAI berbasis HOTS dilakukan melalui penggunaan model problem-based learning, pembelajaran kontekstual, pertanyaan terbuka, serta diskusi reflektif yang mendorong keterlibatan aktif peserta didik dalam proses berpikir tingkat tinggi. Namun, implementasi pembelajaran berbasis HOTS masih menghadapi beberapa kendala, antara lain keterbatasan kompetensi pedagogis guru dalam merancang pembelajaran HOTS, keterbatasan alokasi waktu pembelajaran, serta perbedaan kesiapan akademik peserta didik. Meskipun demikian, inovasi metodologi pembelajaran berbasis HOTS memberikan kontribusi positif terhadap peningkatan kemampuan berpikir kritis, keterlibatan belajar, dan pemahaman konseptual peserta didik dalam pembelajaran PAI. Temuan ini menegaskan pentingnya penguatan pengembangan profesional guru dan dukungan institusional dalam mengimplementasikan pembelajaran PAI berbasis HOTS secara berkelanjutan.

Kata-kata Kunci: Higher Order Thinking Skills (HOTS); Pendidikan Agama Islam; Pembelajaran Berbasis HOTS; Inovasi Metodologi Pembelajaran; Studi Kasus

1. INTRODUCTION

Islamic Education at the senior high school level plays a strategic role in shaping the character and morals of the younger generation amidst the complex challenges of the modern era (Husna, 2024). In the context of the Fourth Industrial Revolution and 21st century society, religious education is expected not only to internalize Islamic values, but also to foster critical, creative, and reflective thinking in students (Pu et al., 2025). This critical thinking ability is now a global priority (Živković, 2016). From the perspective of Islamic education, Islamic Education learning is not merely the transmission of religious knowledge (*ta'lim*), but also the process of forming an Islamic personality (*tazkiyah al-nafs*) and developing intellectual potential (*tathwīr al-fīkr*). Cognitive, affective, and psychomotor aspects can be developed through integrating Islamic aspects (Wahyudiati, 2022).

More intensive HOTS-based Islamic learning for students in the classroom is crucial to meet their learning needs. Islamic education that is oriented towards *tarbiyah* emphasizes a balance between cognitive, affective, and spiritual aspects, so that the integration of the HOTS approach needs to be directed not only to hone critical thinking skills, but also to deepen awareness of monotheism, morality, and social responsibility in accordance with Qur'anic values. Therefore, the integration of the Higher Order Thinking Skills approach into the Islamic Education learning methodology is very relevant, especially in public schools with a heterogeneous student population and an established educational management system (Sholeh et al., 2025).

The integration of the HOTS approach into Islamic Education learning can be achieved by implementing learning strategies that encourage students to analyze, evaluate, and create solutions to religious issues relevant to their daily lives (Zhaffar et al., 2021). The results of research conducted by Halimah, which states that the implementation of HOTS in Islamic religious education learning is able to improve critical thinking skills (Halimah, 2021). Teachers can facilitate case study-based discussions on socio religious phenomena, collaborative projects that emphasize problem solving, and critical reflection on Islamic values when discussing global issues such as moral degradation, digital literacy, and cultural diversity. Socially responsive teachers are able to address global challenges through a balanced and moderate Islamic educational approach (Mala et al., 2024). Thus, Islamic Education learning becomes a means to strengthen 21st century skills, including critical thinking, communication, collaboration, and creativity, rather than simply transferring knowledge (Novia et al., 2024). This approach fosters deeper moral awareness and forms a young generation that is adaptive, moderate, and strong-willed amidst dynamic changes.

A relevant pedagogical approach that addresses these demands is the HOTS model, developed by Anderson and Krathwohl (Syahri & Ahyana, 2021). This model emphasizes thinking skills at the levels of analysis, evaluation, and creation. Integrating the HOTS approach into Islamic Education is believed to expand students' reasoning abilities, enabling them to understand Islamic teachings more deeply and apply them more effectively. Previous research, such as that conducted by Ragab (Ragab et al., 2024) and King (King et al., 2011), as well as research in the context of Islamic education by Muttaqin (Muttaqin et al., 2021) has shown that HOTS contributes to strengthening students' critical thinking and religious tolerance. However, most of this research is conceptual or limited to madrasahs and has not empirically examined its implementation in public schools. Therefore, this study examines the implementation of HOTS in public schools.

In contrast, Islamic Education (ISE) teaching in public schools still faces structural and cultural challenges. Teachers tend to use an expository approach; the ISE curriculum is dense and focused on delivering material; and time constraints hinder the exploration of higher order thinking tasks. Furthermore, teachers' readiness to design HOTS-based Islamic learning scenarios varies widely, and training to develop these skills is minimal (Agusta, A. R., & Sa'dijah, 2021). These findings indicate a gap between the ideal integration of HOTS and the actual implementation of ISE teaching in public schools.

This issue requires in depth and contextual study, especially in semi urban areas such as Karanganyar in Central Java, which have complex and heterogeneous socio-religious characteristics. State Senior High School 1 Karanganyar is an appropriate location to explore how Islamic Education teachers translate HOTS concepts into daily

learning designs, strategies, and activities, as it is a leading school in the region. The selection of State Senior High School 1 Karanganyar as the research site is academically justified by several considerations. The school represents a semi urban socio-religious context with heterogeneous student backgrounds, making it relevant for examining the implementation of Higher Order Thinking Skills (HOTS) in Islamic Education. As a reference and leading school in the region, it has experience in applying curriculum-based innovations, providing a credible setting to observe teachers' pedagogical strategies. Furthermore, the school's social and religious environment allows the study to analyze how HOTS-based Islamic Islamic learning influences students' cognitive development, religious reasoning, and character formation within a diverse social context. The novelty of this study lies in its attempt to bridge the gap in empirical research linking HOTS-based Islamic Education learning methodologies with the dynamics of learning in public schools. This study not only describes innovative practices but also critically analyzes gaps, opportunities, and strategies for future improvement. Thus, this research is expected to contribute to the theoretical development of modern Islamic pedagogy and the practical improvement of religious education in public schools.

A significant gap in the literature is the lack of empirical studies examining HOTS-based Islamic Education learning methodologies in public schools using a contextual case study approach. Only a few studies evaluate how HOTS pedagogical designs can be developed specifically for Islamic education materials and the extent to which these models impact students' cognitive and affective engagement.

This research contributes to the development of a contemporary Islamic pedagogical paradigm that integrates modern cognitive approaches such as HOTS with the principles of Islamic education, which are based on the values of monotheism, morality, and welfare. This approach is expected to become a model of religious education capable of shaping a generation of *ulul albab*, namely a generation that thinks critically, has noble morals, and is committed to Islamic values amidst the currents of globalization.

The novelty of this research lies in its in-depth exploration of the methodological innovation of the HOTS-based Islamic Education learning model implemented at Senior High School 1 Karanganyar in the 2024/2025 academic year. This research not only focuses on the application of HOTS strategies in learning but also reveals the learning design process, contextual challenges faced by teachers, and the dynamics of student engagement in higher-order thinking processes within the context of Islamic values.

The primary contribution of this study is to provide comprehensive empirical insights into the development of HOTS-based Islamic education learning methodologies in public schools. It is also expected to enrich studies of modern Islamic pedagogy and provide practical recommendations for teachers, curriculum designers, and educational

policymakers in designing transformative and relevant Islamic education programs to address the challenges of the global era.

2. METHOD

This study uses a qualitative approach with an intrinsic case study design to explore and understand in depth the practice of Higher Order Thinking Skills (HOTS) based learning methodology in Islamic Religious Education at SMA Negeri 1 Karanganyar in the 2024/2025 academic year (Baxter & Jack, 2008). The research problem is solved by directly examining the process of planning, implementing, and evaluating HOTS-based Islamic learning implemented by teachers in a real classroom context. The intrinsic case study design works by focusing the research on a specific case that is considered unique and meaningful, thus allowing researchers to capture the complexity, dynamics, and interactions between learning components as a whole in their natural context (Zhang & Creswell, 2013). Operationally, data was collected through learning observations, in-depth interviews with teachers and students, and analysis of learning documents, and then analyzed thematically to identify patterns, strategies, and challenges in implementing HOTS-based Islamic Religious Education learning.

This study employs a descriptive exploratory research design to address the research problem by systematically examining how higher-order thinking skills (HOTS) are planned, implemented, and reflected in Islamic Studies Education (ISE) learning practices. The research problem is resolved by exploring real classroom practices to identify gaps, patterns, and effective strategies in the application of HOTS-oriented instruction. The descriptive exploratory design operates by allowing the researcher to document instructional processes in detail while simultaneously exploring emerging pedagogical phenomena that may not be fully theorized. Through this design, the researcher captures pedagogical strategies, levels of student cognitive engagement, and the integration of Islamic values as they naturally occur during the learning process. Operationally, data are collected through classroom observations, in-depth interviews with teachers and students, and analysis of lesson plans and assessment documents, which are then analyzed thematically to generate an in-depth understanding of HOTS-oriented ISE practices.

Three Islamic Education teachers at State Senior High School 1 Karanganyar were deliberately selected as the subjects of this study due to their direct involvement in designing and implementing HOTS-based Islamic learning. The selection criteria for these subjects were having taught Islamic Education subjects in grades XI or XII in the 2024/2025 academic year at State Senior High School 1 Karanganyar, having at least 3 years of teaching experience, and having been involved in or having tried to design learning activities that lead to higher-order thinking skills. Supporting informants included 12 grades XI and XII students who participated in the Islamic Education learning

process, as well as the vice principal for curriculum, who provided structural and policy perspectives related to learning innovation.

Data was collected through three main techniques: participant observation, in-depth interviews, and document analysis (Chand, 2025). Participant observation was conducted by the researcher in the role of observer as participant, in which the researcher was present in the classroom without actively intervening in the learning process. Observations were carried out over eight learning sessions, each lasting approximately 90 minutes, to systematically record teacher instructional strategies, student cognitive engagement, and classroom interactions related to the implementation of higher-order thinking skills (HOTS). Semi-structured in-depth interviews were conducted with three Islamic Studies teachers and twelve students, with each interview lasting between 30–45 minutes. The interviews aimed to explore participants' understanding, experiences, and reflections on HOTS-oriented learning practices. Key guiding questions included: How do teachers design learning activities to promote higher-order thinking?, What challenges are encountered in implementing HOTS-based Islamic instruction? How do students perceive their cognitive engagement during the learning process? Document analysis involved the examination of lesson plans, teaching materials, and assessment instruments to identify the alignment between planned instruction, classroom implementation, and HOTS-oriented learning objectives. All collected data were analyzed thematically to ensure methodological coherence and depth of interpretation.

Documentation studies involved analyzing learning tools, such as lesson plans, student worksheets, learning media, and assessment rubrics. Data validity was ensured through source and technique triangulation implemented in an operational and systematic manner (Susanto et al., 2023). Source triangulation was conducted by comparing and cross-checking data obtained from teachers, students, and school officials at each stage of analysis to identify convergence and divergence of perspectives regarding the implementation of HOTS-oriented Islamic Studies Education. Technique triangulation was applied by integrating findings from classroom observations, in-depth interviews, and document analysis to verify consistency between planned instruction, classroom practices, and reported experiences.

Member checking was conducted after the initial data coding and preliminary thematic analysis. At this stage, selected interview transcripts, observation summaries, and emerging themes were returned to key informants to confirm the accuracy of interpretations and representations of their experiences. Informants' feedback, including clarifications, confirmations, and corrections, was systematically incorporated into the revision of codes and themes, thereby refining the analytical framework. In addition, peer discussions with fellow researchers were conducted at the interpretation stage to critically examine analytical decisions and minimize subjective bias.

Thematic data analysis was conducted through a systematic and replicable process consisting of data reduction, coding, categorization, interpretation, and conclusion drawing (Qomaruddin & Sa'diyah, 2024). The analysis began with open coding, in which meaningful units of data from observation notes, interview transcripts, and documents were labeled using descriptive codes such as HOTS-oriented questioning, student analytical response, teacher scaffolding, and assessment alignment. These initial codes were then examined through axial coding to identify relationships and connections among codes, leading to the formation of broader analytical categories, including instructional strategies, student cognitive engagement, pedagogical roles of teachers, and implementation challenges.

In the selective coding stage, core themes were constructed by integrating these categories with the theoretical framework of Higher Order Thinking Skills and Islamic Education pedagogy. Major themes included HOTS-based Islamic instructional design in Islamic Education, students' higher-order cognitive engagement, teachers' roles in facilitating critical and reflective thinking, and the integration of HOTS with Islamic character development. Each theme was systematically linked to both the research focus and relevant theoretical constructs, ensuring conceptual coherence. The analysis was conducted iteratively, with continuous comparison between empirical data and theoretical assumptions, allowing themes to be refined and validated. This structured analytical procedure provides a logical pathway that enables qualitative analysis to be followed and conceptually replicated by other researchers in similar contexts.

3. RESULT AND DISCUSSION

The implementation of Islamic Education based on Higher Order Thinking Skills (HOTS) at Senior High School 1 Karanganyar begins with a relatively structured planning process by the Islamic Education teacher. This planning includes establishing learning objectives that target not only factual mastery of religious material but also the ability to analyze socio-religious phenomena, evaluate religious arguments, and find solutions to moral issues in a contemporary context.

These objectives are explicitly stated in the Learning Plan and align with the Pancasila Student Profile and HOTS indicators, as defined by Anderson and Krathwohl (Syahri & Ahyana, 2021). Teachers primarily employ a problem-based learning (PBL) approach in designing HOTS-oriented Islamic Education lessons, positioning contextual problems as the entry point of learning. This approach is supported by research indicating that PBL effectively fosters higher-order thinking skills through authentic problem-solving processes that require analysis, evaluation, and reflective reasoning (Yew & Goh, 2016). In practice, teachers design learning scenarios that challenge students to respond to real-world issues such as radicalism, digital ethics in social media, and religious pluralism, which are closely connected to students' social realities. Rather than providing

single or predetermined answers, teachers encourage students to explore multiple perspectives, construct arguments, interpret Qur'anic verses and prophetic traditions, and relate them to contemporary social conditions. This pedagogical strategy aligns with studies in moral and religious education that emphasize the role of higher-order thinking in developing ethical reasoning, moral judgment, and reflective engagement with religious values beyond normative memorization (Tan, 2017). Thus, PBL functions as an effective pedagogical framework for integrating the development of HOTS with the cultivation of Islamic moral and character education in authentic learning contexts.

This approach encourages critical thinking and strengthens contextual religious literacy. Diverse learning methods are based on constructivist principles. Islamic Education teachers at this school combine inquiry based learning, group discussions, value debates, and project-based digital media. One illustrative example is the "Ethics Towards Others" learning theme, in which students are assigned to create a video project on tolerance grounded in Qur'anic verses and Hadith. This learning activity engages multiple levels of higher-order thinking skills, particularly analysis, evaluation, and creation. Students analyze social realities related to intolerance and diversity, evaluate these conditions using Islamic ethical principles, and subsequently create a digital product that communicates their reflective understanding.

Through this process, core Islamic values such as tolerance (*tasāmuḥ*), justice (*ʿadl*), respect for human dignity (*karāmah al-insān*), and social responsibility (*ukhuwwah insāniyyah*) are actively constructed rather than passively transmitted. The integration of HOTS with value construction aligns with Bloom's revised taxonomy, which emphasizes creating as the highest cognitive process, and with character education theory that views moral development as emerging from reflective action, ethical reasoning, and contextualized practice (Narvaez, 2007). Thus, the project-based activity functions as a pedagogical bridge between cognitive development and Islamic character formation.

In terms of learning tools, Islamic Education teachers at State Senior High School 1 Karanganyar have developed student worksheets based on higher-order thinking skills. These worksheets include stimuli such as news excerpts, illustrations of social issues, and Quranic verses related to contemporary topics. Students are asked to answer questions at the levels of analysis, evaluation, and creation, such as: "What is the Islamic perspective on the spread of hate speech on social media?" and "Designing a digital camera for Islamic Education based on the values of Islamic brotherhood from QS. Al-Hujurat, verse 10." This demonstrates a systematic effort to internalize religious values through higher-order thinking skills.

The findings also show that Islamic Education teachers consistently incorporate Islamic values into all stages of HOTS-based Islamic learning, as quoted from interviews conducted with Islamic Education teachers " I try to formulate questions that invite

students to compare two Islamic jurisprudence views on the use of social media, I ask why and how it impacts adolescent morals, but there are challenges in increasing students' intrinsic motivation. "This statement indicates that teachers consciously shift from recall-based questioning to evaluative questioning, which is a core dimension of HOTS."

This is in line with research conducted by Pu, which states that there are challenges in stimulating various levels of student motivation to explore independently (Pu et al., 2025). In its implementation, values such as scientific integrity, tolerance, and social responsibility are taught theoretically and integrated into student assessment and reflection criteria. For example, project assessment evaluates students not only based on the logic and aesthetics of their work, but also on their cooperative attitudes and ethical communication of religious values, because creative and instructional evaluation supports the development of HOTS (Ahmad et al., 2025)

Interviews with Islamic Education teachers Heny and Ninuk revealed that the focus of lesson planning is on developing students' analytical and reflective skills. Learning tools, such as lesson plans and student worksheets, utilize problem-based learning, inquiry learning, and values clarification. Teachers develop learning scenarios based on religious case studies and social issues such as religious hoaxes, tolerance, and justice in Islam.

Observations confirmed that teachers actively used visual aids and open-ended questions, and encouraged argumentative classroom discussions. Teachers appeared to adhere to Anderson and Krathwohl's taxonomy, which focuses learning on analytical, evaluative, and creative thinking. The teaching modules also reflected the integration of Islamic values within a contemporary context relevant to students' lives. The discussion of these findings indicates that teachers' instructional designs are moving toward the HOTS skill principles developed by Anderson and Krathwohl (Syahri & Ahyana, 2021). These principles encompass three main categories: analyzing, evaluating, and creating (Cooling, 2012). The learning culture in religious education still emphasizes the transmission of values and normative truths, which conditions students to reproduce textual responses rather than engage in critical evaluation (Sirait, R. A., & Olis, O, 2024). This suggests that students' evaluative skills in religious contexts require gradual development through practice.

One of the strengths of this learning design is its emphasis on value dialogue: open discussions among students about differing understandings of Islamic teachings, particularly interpretive themes such as the meaning of *jihad* and *hijrah*, and the priority of charity in modern life. The teacher acts as a facilitator, keeping the dialogue within the bounds of Islamic ethics.

This strategy creates space for students to practice reflective thinking and manage differences constructively, which are hallmarks of HOTS-based Islamic learning. However, there are several challenges in implementing this strategy. Some teachers

acknowledged that they found it difficult to formulate relevant evaluative and creative questions. Time constraints for Islamic Education learning make it difficult for teachers to thoroughly explore the material while providing ample opportunities for students to do the same. This suggests that the success of HOTS-based Islamic learning designs depends not only on teachers but also on systemic support, such as training, time management, and curriculum support. The HOTS-based Islamic Islamic Education learning design at State Senior High School 1 Karanganyar demonstrates significant pedagogical innovation. Teachers play an instructional role, acting as learning designers and facilitators of values. Religious learning becomes more contextual, participatory, and meaningful. These findings can be used to develop HOTS-based Islamic Islamic Education learning models in similar state schools. Religious learning becomes more contextual, participatory, and meaningful with HOTS. This is in line with research conducted by Alfi, which states that religious learning becomes more contextual, participatory, and meaningful with HOTS (Alfi et al., 2023).

One activity that reflects the application of HOTS is analyzing social media content from an Islamic perspective. In this activity, students critique the phenomenon of hate speech based on Quranic verses discussing ethics, brotherhood, and communication etiquette.

Most students demonstrated a deep understanding of the religious context in relation to today's digital reality. They didn't simply quote texts; they elaborated on their meaning in the context of current situations. Students' levels of engagement in classroom discussions varied widely. Through observations and interviews, it was found that students with good literacy habits and religious family backgrounds tended to be more active in expressing their opinions. This finding aligns with research conducted by Sholihah and Khoiriyah, (Sholihah & Khoiriyah, 2024) which found that a supportive environment and students' religious character fostered positive responses. This tendency is also consistent with studies on student engagement, which report that students' home backgrounds, including literacy exposure and value-oriented family environments, are associated with higher levels of behavioral and cognitive engagement in learning contexts (Wang & Eccles, 2013). Therefore, the present finding should be interpreted as indicative rather than explanatory, reflecting observed engagement patterns rather than measured relationships.

These students can construct logical, critical, and in-depth arguments. In contrast, students who are less accustomed to reflective thinking activities or who are not interested in religious issues tend to provide normative and clichéd answers and are sometimes reluctant to participate. Student enthusiasm toward HOTS-based Islamic learning was identified through classroom observations and interviews. This enthusiasm was observed in the form of increased participation during discussions, a higher frequency of student-initiated questions, and voluntary involvement in group and whole class discussions.

Interview data further indicated that several students perceived HOTS-based Islamic tasks as more engaging because their opinions were acknowledged and discussed by peers and teachers. Students also reported feeling more challenged and motivated, as the learning activities required creativity and in-depth thinking rather than rote memorization or multiple-choice responses. These findings support previous research suggesting that HOTS-based learning can enhance student motivation in religious education contexts (Nasution et al., 2022).

However, the quality of students' arguments still shows significant cognitive gaps. Some students struggle to analytically connect religious values to social phenomena. For example, in discussions about religious tolerance, some students justify exclusive views without considering the principles of maqasid sharia or universal Islamic values.

This demonstrates that higher-order thinking is a habit that must be continuously developed. Students are beginning to show progress in their reflective thinking skills, particularly during weekly teacher led end of lesson reflection sessions. During these sessions, students are encouraged to reflect on the personal meaning of the material learned and how they can apply it to their daily lives. Several students were able to express their spiritual experiences, moral concerns, and critical views on religious behavior observed in society. These reflections reinforce the function of religious education as a medium for fostering self-awareness and social responsibility. The shift in the teacher's role from instructor to facilitator was identified through classroom observations and interview data. Teachers were observed allocating time for student led discussions, encouraging multiple interpretations of Islamic themes, and guiding reflection through open-ended questions rather than direct explanation. This practice indicates teacher agency in intentionally restructuring classroom interactions to support student meaning-making, which aligns with constructivist learning theory emphasizing knowledge construction through dialogue and active engagement (Biesta, 2015). In an interview, Ms. Heny stated that students were asked to create digital da'wah content with themes of Islam and religious moderation.

The support of the principal Giyarto, S.Pd., M.Pd., and the vice principal for curriculum Joko P. shows that teachers are given the freedom to innovate within the framework of an independent curriculum. This aligns with the concept of teacher agency, or the teacher's ability to direct and create learning experiences. Teachers are no longer positioned as conveyors of values, but rather as facilitators of spiritual and intellectual dialogue. This discussion emphasized that the higher order thinking skills (HOTS) approach has great potential in stimulating students' critical and reflective thinking skills on contemporary Islamic issues. This approach not only activates higher order cognitive aspects but also the affective and ethical domains. This aligns with Anderson and Krathwohl's view that places analysis, evaluation, and creation at the core of a higher

order thinking taxonomy that fosters meaningful and transformative learning (Syahri & Ahyana, 2021).

The success of HOTS implementation depends heavily on students' mental and cognitive readiness. Students' socioeconomic backgrounds, family learning cultures, and literacy habits significantly influence their response to this approach. Students from monolithic and traditional backgrounds require more time to adapt to an open and dialogical thinking space.

Students' learning activities and cognitive responses to HOTS-based Islamic Education learning at Junior High School 1 Karanganyar indicate that, despite challenges, this method effectively develops students' higher order thinking skills. These findings underscore the importance of differentiated and sustainable learning strategies that ensure all students can benefit from the HOTS approach, regardless of their background.

The teacher's role as a facilitator who is sensitive to students' needs and characteristics is key to the success of this strategy. In the context of HOTS-based Islamic Education learning at Senior High School 1 Karanganyar, the teacher's role has transformed significantly from merely delivering material to being an active and innovative learning facilitator. Teachers no longer dominate the classroom with a one-way lecture method; instead, they direct the classroom as an interactive and dialogical space. Teachers consciously create an open learning environment that encourages students to ask critical questions and develop a more contextual understanding of religion.

One of the most significant changes in teachers' roles is their ability to design high-level questions based on HOTS principles. In a lesson on "Shura and Democracy in Islam," the teacher begins with a thought-provoking question: "What is Islam's view on modern democracy, and to what extent can the principle of deliberation be applied in today's government?" This question tests students' knowledge and requires them to analyze, evaluate, and connect religious concepts to socio-political realities.

Teachers also take the initiative to create spaces to explore Islamic values relevant to students' lives. In discussions about adolescent social ethics, for example, teachers encourage students to examine promiscuity through the lens of the *maqasid sharia* (Islamic principles), rather than simply conveying prohibitions. This approach requires teachers to master Islamic texts and understand their students' social, cultural, and psychological contexts.

As innovators, Islamic Education teachers at State Senior High School 1 Karanganyar actively develop media and project-based learning approaches. They design problem-based activities, such as creating digital Islamic preaching narratives, producing spiritual reflection podcasts, and simulating religious debate forums. These activities encourage students to become independent learners while also training them in communication, collaboration, and digital literacy—all relevant 21st century skills.

These findings indicate that teachers possess teacher agency, defined as the capacity to act reflectively and strategically in response to learning challenges. Teachers not only implement the curriculum as fixed instructions but also creatively adapt materials, methods, and media. This aligns with Pantic theory that teacher agency reflects the teacher's ability to make valuable and contextual pedagogical decisions (Pantic, 2015).

This transformation requires strengthening the pedagogical competency of Islamic Education teachers. Teachers must master Islamic content and understand student developmental psychology, modern learning theories, and strategies for developing critical thinking skills. In interviews, several teachers acknowledged that the HOTS training they received was beneficial in broadening their knowledge and enhancing their ability to design innovative learning.

However, the role of teachers as facilitators of HOTS learning faces challenges. One challenge resistance from students accustomed to passive learning or rote learning. Teachers must be patient and use a step by step approach to change this learning culture. Time constraints also pose a challenge in providing students with a broader exploration space to explore religious topics in depth and context.

This discussion emphasized that, in HOTS-based Islamic Islamic Education (ISE), teachers act as bridges between religious texts and real life. Rather than simply teaching "what is true" dogmatically, teachers guide students to question, critique, and discover the meaning of Islam in personal and social contexts. This reflects the transformative learning idealized in contemporary Islamic education.

This paradigm shift in the teacher's role is a crucial indicator of the successful integration of HOTS into religious education. Teachers are no longer "sole holders of truth," but rather learning partners who facilitate reasoning and dialogue about values. In this sense, teachers become catalysts for fostering spiritual thinking, rather than simply memorizing religious beliefs.

Islamic Education teachers who are capable of facilitating and innovating improve the quality of learning and contribute to shaping a generation of Muslims capable of critical, tolerant, and ethical thinking in facing the complexities of the modern world (Rohim & Al Madzaly, 2025). This role requires continuous professional development for teachers and a school ecosystem that supports values-based learning, innovation, and higher-order thinking.

The implementation of HOTS-based Islamic Islamic Education in public schools, including Karanganyar 1 State Senior High School, presents various systemic and cultural challenges. Although the HOTS approach has been integrated into national education policy, numerous obstacles remain that hinder its optimal implementation.

Limited instructional time represents a systemic constraint in implementing HOTS-based Islamic learning in Islamic Education. With only two hours of instruction

per week, teachers have restricted opportunities to facilitate extended discussion, reflection, and value exploration, which are essential for higher-order thinking. Similar findings in prior studies indicate that rigid curriculum structures and time allocation policies often force teachers to prioritize content coverage and assessment demands over deep cognitive engagement. These conditions highlight the need for policy level adjustments, including greater curriculum flexibility and better alignment between assessment practices and HOTS objectives ([Fredricks et al., 2004](#))

The dense and content laden curriculum poses another challenge. Islamic Education teachers must master all basic competencies in a short time, but the HOTS approach emphasizes quality over quantity. The tension between administrative demands and the desire to promote HOTS has led some teachers to continue using conventional approaches to meet curriculum targets ([Rachmatia, n.d.](#))

Teachers' lack of preparedness in managing HOTS-based Islamic learning is also a significant obstacle. Although some teachers have received HOTS training, many still do not know how to apply it appropriately in the context of religious education. Some teachers struggle to formulate analytical questions or objectively evaluate students' critical thinking. This underscores the importance of ongoing training and direct mentoring in the classroom. These findings align with research by Sarkawi who explained that teachers' lack of pedagogical knowledge, limited assessments, limited learning time, and institutional readiness are challenges faced in implementing HOTS learning ([Sarkawi et al., 2023](#)).

Interviews with Andi and Nabila, students, demonstrated their enthusiasm for the intellectually challenging Islamic Education course. Andi said he felt challenged when asked to debate gender issues in Islam, and Nabila said she learned a lot from the student discussions. However, there was significant variation in student responses. Observations revealed differences in the quality of arguments and participation in discussions. Some students tended to be passive or appeared confused when faced with open ended questions. These differences indicate varying levels of cognitive readiness to face the demands of HOTS.

Student learning culture is also an internal factor that influences the effectiveness of HOTS implementation. Many students are accustomed to passive learning patterns and rely solely on single answers from the teacher. When given the opportunity to think critically or participate in open discussions, some students resist or appear confused in determining their position. This culture does not develop overnight; rather, it results from long-standing educational practices that focus on memorization and compliance, rather than dialogue and reasoning.

Another challenge is the lack of an assessment system that consistently implements HOTS, which aligns with research conducted by ([Wilson & Narasuman, 2020](#)) which states that the assessment system is one of the challenges to implementing

HOTS in schools. In many public schools, the evaluation of Islamic Education learning outcomes is still dominated by multiple choice questions or low-cognitive tests.

However, to measure higher order thinking skills, authentic assessment methods such as projects, written reflections, portfolios, and performative assessments are required. The mismatch between HOTS teaching methods and assessment instruments has the potential to reduce teachers' motivation to continue using this approach. Discussion of these findings reveals a gap between the ideal concept of HOTS and the reality of the public-school learning system. HOTS requires a transformation of learning culture, instructional design, and evaluation systems. However, many aspects of our education system still rely on outdated approaches that emphasize knowledge reproduction over meaning building (Alinata, R. et al., 2024). This creates a teaching dilemma for educators, who must balance innovative desires with administrative demands. Structural support from schools and policymakers is crucial. Without policies that support curriculum reduction, teacher capacity development, and changes in assessment formats, HOTS implementation will be half hearted. Schools must provide opportunities for teachers to innovate, for example through tutoring-based learning programs, professional learning communities, and cross-subject teacher reflection. Strengthening collaboration between teachers, parents, and religious communities is also crucial. HOTS-based Islamic Islamic Education learning takes place not only in the classroom but also in students' real lives. Parental support in fostering a culture of dialogue at home and the involvement of religious leaders in providing contextual guidance to students will strengthen meaningful learning outcomes.

Although the implementation of HOTS-based Islamic Islamic Education learning in public schools faces various challenges, opportunities for improvement remain wide open, as demonstrated by the results of a study conducted by Angkat (Angkat, 2025). The study stated that systemic support from schools and educational institutions is needed to improve the quality of HOTS-based Islamic Islamic Education learning. A paradigm shift in educational management is needed, shifting the focus from product-oriented outcomes (exam scores) to process oriented outcomes and character building. The successful implementation of HOTS in religious education is a shared responsibility of the entire educational ecosystem, not solely the responsibility of teachers.

The implementation of HOTS-based Islamic Islamic Education at State Senior High School 1, Karanganyar, has had a positive impact on students' character and religious reasoning. Designed with an analytical, evaluative, and creative approach, this learning not only improves students' cognitive understanding of the subject matter but also fosters more reflective, tolerant, and morally responsible attitudes. Students actively engage in discussions of contemporary Islamic issues, such as religious moderation, digital ethics, and interfaith relations, in various learning activities. When asked to evaluate provocative social media content from an Islamic perspective, for example,

students learn to distinguish between right and wrong and consider aspects of public interest, justice, and social impact.

This process strengthens reasoning skills while shaping moral character based on Islamic values. A key finding from student interviews was the emergence of a more contextualized spiritual awareness. Students recognized that Islamic teachings are ethical guidelines that must be applied in social life, not merely rituals and dogma. They learned to view religious teachings as a source of values for critical thinking and decision-making. This suggests that higher order thinking skills (HOTS) indirectly trigger the integration of religious knowledge and real-life experiences, in line with the findings of Hidayati & Saparudin (Hidayati & Saparudin, 2023).

The main obstacles are limited learning time, a dense curriculum, and teachers' uneven ability to develop evaluative questions. Teachers stated that most students are unfamiliar with higher order thinking questions because they are accustomed to memorization-based questions.

From a structural perspective, the curriculum documents do not sufficiently support the systematic integration of HOTS. The principal and vice principal of the curriculum department emphasized the need to provide additional technical training to Islamic Education teachers and to develop an authentic assessment system aligned with HOTS principles.

HOTS-based Islamic Islamic Education also fosters tolerance and empathy. During discussions about religious pluralism, teachers encourage students to engage in open dialogue without judgment. This approach teaches students to understand differences rationally and wisely, rather than solely through doctrine. Many students report that through these discussions, they learn to respect others' opinions and realize that Islam upholds the principle of *rahmatan lil 'alamin* (blessing for the universe).

This aligns with Chotimah's research, which states that HOTS-based learning can make students more accepting of others' opinions (Chotimah et al., 2020). Theoretically, integrating character education with higher order thinking skills is a hallmark of the humanistic approach to Islamic education. According to Wahid, Islamic education should liberate reason, strengthen conscience, and shape individuals capable of critically interpreting reality based on divine values (Wahid, 2019). In this context, HOTS-based Islamic learning can serve as a transformative tool for cultivating conscious, rational, and responsible spirituality.

HOTS-based Islamic learning improves students' thinking skills and strengthens religious character and tolerance. Project based and reflective assignments help students understand Islam in a more contextual and inclusive way. These findings support the view that integrating values education and higher order thinking skills can produce transformative and humanistic Islamic learning (Zamroni, 2019).

This process transforms students from mere memorizers of texts into interpreters of values. Furthermore, HOTS learning contributes to the development of contextual religious reasoning, enabling students to understand Islamic teachings dynamically and flexibly, relevant to contemporary challenges. For example, in the topic of muamalah, students examine the digital economic system from a contemporary Islamic jurisprudence perspective. This encourages them to think beyond the text and use the principles of maqasid sharia to develop valuable and solution-oriented positions.

Another implication of this approach is fostering independent learning in religious education. Students become more independent in exploring arguments, analyzing interpretations, and seeking credible Islamic references. This ability is crucial in an era of information disruption where religious content is not always valid or moderate. HOTS learning equips students with critical and selective digital religious literacy skills. This aligns with research conducted by [Nasution \(2024\)](#), which states that HOTS-based Islamic learning can foster critical and selective problem-solving skills in students.

However, character formation and religious reasoning do not occur instantly. Some students still resist open-mindedness or discussions that challenge their beliefs. Therefore, the teacher's role as a facilitator of values is crucial to ensure the learning process remains within the boundaries of ethics, science, and tolerance. Teachers must be able to navigate the ideological and psychological dynamics in the classroom.

This discussion demonstrates that the HOTS approach in Islamic Education learning functions not only as a cognitive enhancement strategy but also as a medium for reconstructing a more inclusive, rational, and applicable understanding of religion. This study demonstrates that HOTS-based Islamic learning in Islamic Education enhances students' analytical and reflective engagement, as evidenced by increased participation, questioning, and interpretive reasoning during classroom interactions. By providing empirical classroom-based evidence, this research contributes to international scholarship on value based and religious education by extending prior findings on student engagement and higher order thinking into the context of Islamic Education ([Jarmer, 2025](#)).

4. CONCLUSION

This study examined how Higher Order Thinking Skills (HOTS) are designed, implemented, and experienced within Islamic Religious Education at State Senior High School 1 Karanganyar. The findings show that HOTS-based pedagogy enables a shift from content transmission toward student-centered inquiry, where teachers assume the role of facilitators and students engage in reflective and analytical reasoning about Islamic values. Students perceived HOTS-oriented tasks as both engaging and cognitively demanding, although the implementation encountered several constraints related to instructional time, curriculum structure, and assessment practices. These findings correspond with the study's research aim to understand how HOTS operates

pedagogically in Islamic Education within a public-school context. The analysis highlights that HOTS integration in Islamic Education fosters contextual and reflective religious reasoning, suggesting that cognitive development in religious learning is not limited to memorization or doctrinal reproduction, but can extend toward evaluative and metacognitive engagement. However, the uneven impact of HOTS-based instruction demonstrates that structural limitations especially insufficient teacher preparation and limited policy support for authentic assessment remain significant barriers to its full implementation. This insight underscores the need to strengthen pedagogical capacity and curricular flexibility to sustain higher-order thinking in religion-based instruction. Theoretically, this study contributes to the field of Islamic Education by providing empirical evidence on how HOTS can be pedagogically integrated into a value-based curriculum without diminishing the spiritual dimensions of learning. It expands the discourse on Islamic pedagogy by demonstrating that reflective engagement may serve as a bridge between religious literacy and critical reasoning in contemporary public-school settings. Practically, the study offers implications for teacher training, curriculum design, and school policy, particularly in developing assessment systems that support open-ended tasks, dialogical learning, and inquiry-based instruction. Within the limitations of this qualitative case study, the findings should be interpreted as context-specific rather than generalized to all Islamic Education settings. Future research may build upon this study through comparative or multi-site designs to examine variations in HOTS implementation across Islamic schools, or through mixed-method approaches that quantitatively measure variables such as religious literacy, critical reasoning, and student engagement. Longitudinal studies may also be valuable to assess whether HOTS-based Islamic Education produces sustained changes in students' cognitive development and reflective religious thinking over time.

5. ACKNOWLEDGEMENT

The authors would like to express their deepest gratitude to the principal and teachers of senior high school 1 Karanganyar for their openness and support throughout the research process. We also thank the students who participated in this research for their valuable insights and involvement in the learning activities. Special thanks are extended to colleagues at the Faculty of Tarbiyah, Mambaul Ulum Islamic Institute Surakarta, for their constructive input and encouragement during the research and writing stages. Finally, we would like to acknowledge the administrative assistance provided by the institution's academic staff, which was very helpful in completing this article.

6. REFERENCES

- Ahmad, A., Ruslan, R., & Nasaruddin, N. (2025). Building Critical and Moral Generation: The Implementation of HOTS Approach in Islamic Religious

- Education. *Journal of English Language and Education*, 10(1), 476–490. <https://doi.org/10.31004/jele.v10i1.656>
- Alinata, R., Sari, W. A., & Putri, Y. K. (2024). Makna pendidikan dalam perspektif Islam dan relevansinya dengan pendidikan di Indonesia. *TADHKIRAH: Jurnal Terapan Hukum Islam Dan Kajian Filsafat Syariah*, 1(3), 49–61. <https://doi.org/10.59841/ihsanika.v2i3.1416>
- Alfi, Maulia, A., Febriasari, A., & Azka, J. N. (2023). Transformation of Islamic religious education through technology. *Religion: Journal of Religion, Social, and Culture*, 02(04), 511–522. <https://doi.org/10.37680/scaffolding.v7i3.8020>
- Angkat, I. (2025). Implementasi Strategi Pembelajaran Berbasis HOTS (Higher Order Thinking Skills) pada PAI. *Analysis: Journal of Education*, 3(1), 83–89. <https://doi.org/10.65311/j.analysis.v3i1.1456>
- Agusta, A. R., & Sa'dijah, C. (2021). Kesiapan guru melaksanakan pembelajaran berbasis HOTS ditinjau dari pengetahuan dan kemampuan mengemas perangkat pembelajaran. *PADARINGAN (Jurnal Pendidikan Sosiologi Antropologi)*, 3(2), 402–424. <https://doi.org/10.20527/padaringan.v3i2.3422>
- Baxter, P., & Jack, S. (2008). Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13(4), 544–559. <https://doi.org/10.46743/2160-3715/2008.1573>
- Biesta, G. (2015). What is education for? On Good education, teacher judgement, and educational professionalism. *European Journal of Education*, 50(1), 75–87. <https://doi.org/10.1111/ejed.12109>
- Chand, S. P. (2025). Methods of Data Collection in Qualitative Research: Interviews, Focus Groups, Observations, and Document Analysis. *Advances in Educational Research and Evaluation*, 6(1), 303–317. DOI 10.25082/AERE.2025.01.001
- Chotimah, U., Aisyah, N., & Meryansumayeka, M. (2020). Memperkuat Karakter Peserta Didik Melalui Implementasi Model Pembelajaran Berbasis Hots Pada Pembelajaran PPKn. *Bhineka Tunggal Ika: Kajian Teori Dan Praktik Pendidikan PKN*, 7(1), 55–67. <https://doi.org/10.36706/jbti.v7i1.11414>
- Cooling, T. (2012). What is a controversial issue? Implications for the treatment of religious beliefs in education. *Journal of Beliefs and Values*, 33(2), 169–181. <https://doi.org/10.1080/13617672.2012.694060>
- Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59–109. <https://doi.org/10.3102/00346543074001059>
- Halimah, S. (2021). Implementasi Pendekatan Hots (Higher Order Thinking Skills) Dalam Pembelajaran PAI (Studi Pada Siswa Kelas X Di SMAN 2 Pasuruan Jawa Timur). *Evaluasi: Jurnal Manajemen Pendidikan Islam*, 5 (2021), 342–362. <https://doi.org/10.32478/evaluasi.v5i2.762>
- Hidayati, B. T., & Saparudin, S. (2023). Higher Order Thingking Skills (Hots) dalam Konsep Integrasi Pendidikan Islam dan Sains. *EduInovasi: Journal of Basic Educational Studies*, 4(1), 688–696. <https://doi.org/10.47467/edui.v4i1.5800>

- Husna. (2024). Peran Guru Pendidikan Agama Islam dalam Pembentukan Karakter Siswa: Strategi dan Dampak di Lingkungan Sekolah. *Al-Ulum: Multidisciplinary Research Review*, 1(1), 54–72. <https://barkah-ilmi-fiddunya.my.id/ojs/index.php/au/article/view/56>
- Rachmatia, M. (2024). *Implementasi, Konsep*. Pembelajaran, I. P. A. D. S. S. B. M. U. M. K. (2022). *Muslim Jafar 1, Devy Aisyah 2, Amrina 3*. 2338, 13–34.
- Jarmer, S. T. (2025). Critique of religion and critical thinking in religious education. *British Journal of Religious Education*, 47(3), 253–267. <https://doi.org/10.1080/01416200.2024.2403400>
- Mala, A., Zulkarnain, Z., Marpuah, S., & Badriyah, L. (2024). Towards Sustainable Inclusive Education: Challenges and Reconstruction of PAI Learning Methods in Islamic Boarding School Education. *Jurnal Tarbiyatuna*, 15(2), 116–125. <https://doi.org/10.31603/tarbiyatuna.v15i2.11181>
- Muttaqin, H., Susanto, Hobri, & Tohir, M. (2021). Students' creative thinking skills in solving mathematics higher order thinking skills (HOTS) problems based on online trading arithmetic. *Journal of Physics: Conference Series*, 1832(1). <https://doi.org/10.1088/1742-6596/1832/1/012036>
- Muttaqin, M. F., & Rizkiyah, H. (2022). Efektifitas Budaya Literasi dalam Meningkatkan Keterampilan 4C Siswa Sekolah Dasar. *Dawuh Guru: Jurnal Pendidikan MI/SD*, 2(1), 43–54. <https://doi.org/10.35878/guru.v2i1.342>
- Nasution, J. E. (2024). Perencanaan Pembelajaran Pai Berbasis Higher Order Thinking Skills (Hots) Di Era Society 5.0: Strategi Dan Implementasi. *Al-Ihda': Jurnal Pendidikan Dan Pemikiran*, 19(2), 1632–1641. <https://doi.org/10.55558/alihda.v19i2.176>
- Nasution, M., Lubis, T. C., Hartati, E. D., Firmansyah, A., Wardani, A., & Jf, N. Z. (2022). Cara Memotivasi Siswa dalam Perspektif Islam. *Cendekiawan: Jurnal Pendidikan dan Studi Keislaman*, 1(1), 50–54. <https://doi.org/10.61253/cendekiawan.v1i1.28>
- Narvaez, D. (2007). Integrative Ethical Education. *Moral Education: A Handbook: Volume 1-2*, 1–2, 229–231.
- Novia, F., Desti Nurdianti, & M Bambang Purwanto. (2024). English Learning and Innovation Skills in 21st: Implementation of Critical Thinking, Creativity, Communication, and Collaboration. *Asian Journal of Applied Education (AJAE)*, 3(2), 113–124. <https://doi.org/10.55927/ajae.v3i2.8318>
- Pantic, N. (2015). A model for study of teacher agency for social justice. *Teachers and teaching*, 21(6), 759–778. <https://doi.org/10.1080/13540602.2015.1044332>
- Pu, J., Safian, A. R. Bin, Nasrifan, M. N. Bin, & Saidon, Z. L. Bin. (2025). Need analysis on developing Students' higher order thinking skills one-to-one Western classical instrumental music lessons in higher education. *Acta Psychologica*, 254(February), 104759. <https://doi.org/10.1016/j.actpsy.2025.104759>
- Qomaruddin, Q., & Sa'diyah, H. (2024). Kajian Teoritis tentang Teknik Analisis Data dalam Penelitian Kualitatif: Perspektif Spradley, Miles dan Huberman. *Journal of Management, Accounting, and Administration*, 1(2), 77–84. <https://doi.org/10.52620/jomaa.v1i2.93>

- Ragab, A., Kaid, A., & Sayed, A. K. (2024). Enhancing higher order thinking skills (hots) in education: Strategies and outcomes. *TOFEDU: The Future of Education Journal*, 3(5), 1488-1499. <https://doi.org/10.61445/tofedu.v3i5.267>
- Rohim, A., & Al Madzaly, M. Y. (2025). Analysis of Evaluation Techniques in the Book “Islamic Religious Education and Ethics” for Eleventh Grade Students of Madrasah Aliyah. *Edukasi Islami: Jurnal Pendidikan Islam*, 14(01), 67–86. <https://doi.org/10.30868/ei.v14i01.8054>
- Rosyida, D., Sudirman, S., & Setiawan, H. (2022). Pelaksanaan Pembelajaran Higher Order Thinking Skill (HOTS) Berbasis Technological, Pedagogical And Content Knowledge (TPACK) di SDN 4 Kilang, Kecamatan Montong Gading Kabupaten Lombok Timur. *Jurnal Ilmiah Profesi Pendidikan*, 7(3b), 1702–1710. <https://doi.org/10.29303/jipp.v7i3b.829>
- Sarkawi, N. I., Omar, M., Kamaruzaman, M., Zuber, M., & Majid, A. (2023). Teacher’s readiness in implementing higher order thinking skills and its challenges. *International Journal of Academic Research in Business & Social Sciences*, 13(12), 3339–3345. <https://doi.org/10.6007/IJARBSS/v13-i12/20220>
- Sholeh, M. I., Habibullo, M., Sokip, S., Syafi’i, A., Sahri, S., Nashihuddin, M., ‘Azah, N., Al Farisy, F., & Sulistyorini, S. (2025). Implementasi Evaluasi Pembelajaran Pendidikan Agama Islam Berbasis Higher Order Thinking Skills (Hots). *Al’Ulum Jurnal Pendidikan Islam*, 5(1), 12–26. <https://doi.org/10.54090/alulum.639>
- Sholihah, S. A., & Khoiriyah, K. (2024). Literasi Keagamaan sebagai Pondasi Pengembangan Karakter Religius Siswa. *Al-Fikri: Jurnal Studi Dan Penelitian Pendidikan Islam*, 7(2), 19. <https://doi.org/10.30659/jspi.7.2.19-39>
- Sirait, R. A., & Olis, O. (2024). Religion and culture education: Understanding the interplay and significance. *Anugerah: Jurnal Pendidikan Kristiani dan Kateketik Katolik*, 1(3), 01-12. <https://doi.org/10.61132/anugerah.v1i3.43>
- Susanto, D., Risnita, & Jailani, M. S. (2023). Teknik Pemeriksaan Keabsahan Data Dalam Penelitian Ilmiah. *Jurnal QOSIM Jurnal Pendidikan Sosial & Humaniora*, 1(1), 53–61. <https://doi.org/10.61104/jq.v1i1.60>
- Syahri, A. A., & Ahyana, N. (2021). Analisis Kemampuan Berpikir Tingkat Tinggi Menurut Teori Anderson Dan Krathwohl. *Jurnal Riset Dan Inovasi Pembelajaran*, 1(1), 41–52. <https://doi.org/10.51574/jrip.v1i1.16>
- Tan, C. (2017). A Confucian Conception of Critical Thinking. *Journal of Philosophy of Education*, 51(1), 331–343. <https://doi.org/10.1111/1467-9752.12228>
- Wahid, A. (2019). Pengaruh Model Group Investigation dengan Metode Problem Solving Terhadap Kemampuan Berpikir Kritis Peserta Didik Kelas XI IPS SMAN 1 Bangil. *Jurnal Pendidikan Ekonomi (JUPE)*, 7(2), 55–60. <https://doi.org/10.26740/jupe.v7n2.p55-60>
- Wahyudiati, D. (2022). Implementation of Islamic Education Concept in Ethnochemistry. *Jurnal Tarbiyatuna*, 13(1), 19–28. <https://doi.org/10.31603/tarbiyatuna.v13i1.5310>
- Wang, M. Te, & Eccles, J. S. (2013). School context, achievement motivation, and academic engagement: A longitudinal study of school engagement using a

- multidimensional perspective. *Learning and Instruction*, 28, 12–23. <https://doi.org/10.1016/j.learninstruc.2013.04.002>
- Wilson, D. M., & Narasuman, S. (2020). *Investigating Teachers' Implementation and Strategies on Higher Order Thinking Skills in School Based Assessment Instruments*. *Asian Journal of University Education*, 16(1), 70–84. <https://doi.org/10.24191/ajue.v16i1.8991>
- Yew, E. H. J., & Goh, K. (2016). Problem-Based Learning: An Overview of its Process and Impact on Learning. *Health Professions Education*, 2(2), 75–79. <https://doi.org/10.1016/j.hpe.2016.01.004>
- Zamroni, Z. (2019). Innovation of Learning Management in Madrasah Level. *Dinamika Ilmu*, 19(2), 337–349. <https://doi.org/10.21093/di.v19i2.1717>
- Zhaffar, N. M., Ali, W., Wan, A., Musa, N. A., & Othman, M. S. (2021). *Issues and Challenges of the Implementation of HOTS in Religious Teaching in Malaysia*. May. <https://doi.org/10.6007/IJARPED/v10-i2/9789>
- Zhang, W., & Creswell, J. (2013). The use of mixing procedure of mixed methods in health services research. *Medical Care*, 51(8), 51–57. <https://doi.org/10.1097/MLR.0b013e31824642fd>
- Živković, S. (2016). A Model of Critical Thinking as an Important Attribute for Success in the 21st Century. *Procedia - Social and Behavioral Sciences*, 232(April), 102–108. <https://doi.org/10.1016/j.sbspro.2016.10.034>



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/)