Nawasena:
Interdisciplinary Journal of Islamic Studies
E-ISSN: 3163-740X
Volume 1, Issue 2, October 2026, pp. 91-106
https://doi.org/10.67245/nawasena.v1i2.45

Islamic Religious Education (PAI) Learning Strategies to Develop Higher-Order Thinking Skills: A Systematic Literature Review

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Article Information:
Received: 23 August 2026
Revised: 12 September 2026
Accepted: 14 September 2026
Published: 19 September 2026

Keywords:
Islamic Religious Education, Learning Strategies, HOTS, SLR, Critical Thinking.

Abstract
Developing Higher Order Thinking Skills (HOTS) in Islamic Religious Education (PAI) is important to equip students with the ability to analyze, evaluate, problem-solve, and reflect on Islamic values. This study aims to analyze PAI learning strategies that contribute to the development of HOTS through a Systematic Literature Review (SLR) in the Scopus database, yielding 14 articles that were thematically analyzed. The results show six main strategies, namely active-collaborative learning, inquiry and dialogue, experiential contextual learning, digital technology utilization, student-centered transformative learning, and value-based reflective learning. These strategies give rise to cognitive activities such as asking, exploring, discussing, analyzing, evaluating, solving problems, arguing, and reflecting. These activities produce HOTS skills such as critical thinking, creativity, reasoning, problem solving, argumentation, reflection, cognitive flexibility, and ethical reasoning. The findings confirm that learning strategies do not directly form HOTS, but rather through students' cognitive activities as the main link. Thus, developing HOTS in PAI requires an active, dialogical, contextual, and reflective learning design.

How to Cite this Article: Khoiroh, Zulfiatul, and Anwar M. Radiamoda. "Islamic Religious Education (PAI) Learning Strategies to Develop Higher-Order Thinking Skills: A Systematic Literature Review." *Nawasena: Interdisciplinary Journal of Islamic Studies* 1, no. 2 (2026): 91–106. https://doi.org/10.67245/nawasena.v1i2.45.

INTRODUCTION

Islamic Religious Education (PAI) is not only oriented toward mastering religious knowledge but also toward students' ability to understand, assess, and apply Islamic values in real life.[1] Changes in student characteristics, technological developments, and the complexity of social problems demand PAI learning beyond memorization-oriented learning patterns (Mukmin et al., 2026). PAI learning needs to provide space for students to analyze information, evaluate views, solve problems, formulate arguments, and make decisions responsibly. These abilities are an

[1] M. Fauziah et al., "Reconstructing Curriculum Epistemology through the Tawhidic Worldview: A Conceptual Framework Based on Syed Muhammad Naquib al-Attas," *International Journal of Islamic Khazanah* (UIN Sunan Gunung Djati, Bandung, Indonesia) 16, no. 1 (2026): 55–77, https://doi.org/10.15575/ijik.v16i1.54317.

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important part of Higher Order Thinking Skills (HOTS), especially the ability to analyze, evaluate, and create.[2]

Developing HOTS is increasingly important because Islamic education emphasizes not only mastery of the material but also students' ability to think critically when understanding and responding to various problems. Learning needs to encourage students to question information, analyze problems, consider various views, and provide reasons for their thinking.[3] Kosasih (2022) show that applying HOTS in PAI requires a shift from memorization-based learning to analysis, evaluation, and creation activities.[4] In line with that, Karwadi (2024) through meta-analysis showed that active learning has a positive influence on the development of HOTS in Islamic education.[5]

The development of HOTS is closely related to learning strategies because strategies determine the cognitive activities students experience. Inquiry and dialogue-based strategies, for example, encourage learners to ask questions, give reasons, and consider different views.[6] The findings show the importance of dialogical and inquiry activities in developing thinking skills in Islamic learning. Cooperative learning, experiential learning, and contextual approaches also provide space for involvement, problem-solving, reflection, and critical thinking.[7] In developing digital learning, the Cyber Scientific Approach, gamification, and adaptive learning expand

[2] S. Hussien et al., "IMPROVING STUDENTS' INQUIRY SKILLS IN ISLAMIC EDUCATION THROUGH HIKMAH PEDAGOGY AND COMMUNITY OF INQUIRY," *Malaysian Journal of Learning and Instruction* (Department of Social Foundations and Educational Leadership, Kulliyyah of Education International Islamic University, Malaysia) 18, no. 2 (2021): 189–214, https://doi.org/10.32890/mjli2021.18.2.7.

[3] Muslim Fikri and Elya Munfarida, "Konstruksi Berpikir Kritis Dalam Pendidikan Islam: Analisis Tafsir Maudhu'i Berdasarkan Al-Qur'an," *Jurnal Pendidikan Agama Islam Al-Thariqah*, no. Vol. 8 No. 1 (2023): Jurnal Pendidikan Agama Islam Al-Thariqah (2023): 108–20, https://doi.org/https://doi.org/10.25299/al-thariqah.2023.vol8(1).11469.

[4] A. Kosasih et al., "Higher-Order Thinking Skills in Primary School: Teachers' Perceptions of Islamic Education," *Journal of Ethnic and Cultural Studies* (Universitas Pendidikan Indonesia, Bandung, Indonesia) 9, no. 1 (2022): 56–76, https://doi.org/10.29333/ejecs/994; Nurul Indana, "From Ritual Compliance to Spiritual Internalization: The Experiential Dimension of Religiosity among Indonesian Madrasa Students," *Nawasena: Interdisciplinary Journal of Islamic Studies* 1, no. 1 (2026): 11–23, https://doi.org/10.67245/nawasena.v1i1.7; Faisol Hakim, "A Model for Vocational Curriculum Management in Senior High Schools to Enhance Graduate Independence," *Nawasena: Interdisciplinary Journal of Islamic Studies* 1, no. 1 (2026): 24–36; Saefudin Saefudin, "Digital Transformation in Islamic Education: A Strategic Framework for IT-Based Instructional Design," *Kawruh: Journal of Islamic Studies* 1, no. 1 (2026): 14–28; Ismael Ibrahim Ahmed, "Challenges of Teaching Philosophy in the Absence of Educational Resources Among Eleventh Grade Teachers in Duhok Governorate Preparatory Schools," *Adabuna: Jurnal Pendidikan Dan Pemikiran* 5, no. 2 (2026): 80–99, https://doi.org/10.38073/adabuna.v5i2.4421.

[5] K. Karwadi et al., "A Review of the Effects of Active Learning on High Order Thinking Skills: A Meta-Analysis within Islamic Education," *Journal of Education and Learning* (Department of Islamic Studies, Faculty of Tarbiyah and a Teacher Training, Universitas Islam Negeri Sunan Kalijaga, Yogyakarta, Indonesia) 18, no. 1 (2024): 97–106, https://doi.org/10.11591/edulearn.v18i1.20895.

[6] Hussien et al., "IMPROVING STUDENTS' INQUIRY SKILLS IN ISLAMIC EDUCATION THROUGH HIKMAH PEDAGOGY AND COMMUNITY OF INQUIRY."

[7] A. Khanif, "Islamic Religious Education Learning Strategy for Alpha Generation: A Case Study at Darul Qur'an School Elementary School Semarang City," *Ascarya: Journal of Islamic Science, Culture and Social Studies* (Walisongo State Islamic University, Indonesia) 3, no. 1 (2023): 36–45, https://doi.org/10.53754/iscs.v3i1.461; H. C. A. Kistoro et al., "PROBING EXPERIENTIAL LEARNING APPROACH IN ISLAMIC RELIGIOUS EDUCATION," *Jurnal Pendidikan Islam* (Universitas Ahmad Dahlan Yogyakarta, Jalan Kolektor Ring Road Selatan, Tamanan Banguntapan Bantul, Yogyakarta, 55166, Indonesia) 9, no. 2 (2023): 157–68, https://doi.org/10.15575/jpi.v9i2.24374.

students' opportunities to explore information and develop critical thinking, creativity, and problem-solving skills.[8]

The development of HOTS in PAI can also be integrated with character formation and social skills. Learning based on religious moderation can lead students to analyze religious and social issues while building character.[9] Meanwhile, integrating the Love-Based Curriculum with deep learning pedagogy encourages critical reflection, ethical dialogue, contextual problem-solving, and collaborative participation.[10] The findings show that HOTS can develop in PAI through various strategies, but its success depends on the quality of thinking activities students experience.

Although various studies have discussed the learning strategies and development of HOTS in Islamic education, they generally focus on specific strategies or approaches. A synthesis that specifically maps the relationship between learning strategies, student activities, and thinking skills developed in various PAI contexts is still needed. This research therefore conducted a Systematic Literature Review to analyze and synthesize PAI learning strategies used to develop HOTS. This study specifically identifies the forms of learning strategies, student activities, the roles of teachers and students, and thinking skills developed based on previous research. The results are expected to provide a systematic overview of the characteristics of PAI learning that support the development of HOTS in an active, contextual, reflective, and oriented manner.

METHOD

Research Design

This study employed a Systematic Literature Review (SLR) approach to identify, select, and synthesize research on Islamic Religious Education (PAI) learning strategies for developing students' higher-order thinking skills. SLR was selected because it provides a systematic and rigorous procedure for identifying relevant studies, screening and selecting literature, extracting data, and synthesizing research. The review process involved literature identification, screening based on predetermined criteria, assessment of relevance and document availability, removal of duplicate records, full-text review, data extraction, and synthesis. The literature was retrieved from the Scopus database.

[8] Hendarman Hendarman et al., "Gamification and Adaptive Learning Innovations for Enhancing Students' Critical Thinking and Creativity at an Islamic Boarding School in Indonesia," *Nazhruna: Jurnal Pendidikan Islam* (Pakuan University, Indonesia) 9, no. 2 (2026): 518–35, https://doi.org/10.31538/nzh.v9i2.414.

[9] H. Basri et al., "APPLYING HIGHER ORDER THINKING SKILL (HOTS) TO STRENGTHEN STUDENTS' RELIGIOUS MODERATION AT MADRASAH ALIYAH," *Jurnal Pendidikan Islam* (UIN Sunan Gunung Djati Bandung, Jl. A. H. Nasution No. 105, West Java, Bandung, 40614, Indonesia) 8, no. 2 (2022): 207–20, https://doi.org/10.15575/jpi.v8i2.21133; Masturin Masturin, "Development of Islamic Religious Education Materials Based on Religious Moderation in Forming Student Character," *Munaddhomah* (Institut Agama Islam Negeri Kudus, Indonesia) 3, no. 4 (2022): 346–55, https://doi.org/10.31538/munaddhomah.v3i4.310.

[10] G. C. Kesuma et al., "Integrating a Love-Based Curriculum and Pedagogical Deep Learning for Character Transformation in Indonesian Islamic Senior High Schools," *Munaddhomah* (Universias Islam Negeri Raden Intan Lampung, Indonesia) 7, no. 3 (2026): 657–70, https://doi.org/10.31538/munaddhomah.v7i3.2915.

Data Sources and Search Strategies

The literature search was conducted through the Scopus database using three search strategies. These three strategies were used to obtain adequate literature coverage while maintaining a research focus on PAI, learning strategies, and higher thinking skills. The first search uses the string: "Islamic Religious Education" OR "Islamic Education" OR "Islamic Studies" AND "critical thinking" OR "critical thinking skills" AND "learning strategy" OR "learning model" OR "teaching strategy" OR pedagogy OR "learning approach". The first search yielded 24 documents. After screening based on the research criteria, 15 documents were obtained for further study.

The second search used the string: TITLE-ABS-KEY "Islamic Religious Education" OR "Islamic Religious Education") AND "critical thinking" OR "higher order thinking" OR HOTS AND school OR student OR madrasah. The second search yielded 14 documents, which became 12 after the initial screening. The third search used the string: "Islamic Religious Education" OR "Islamic Education" OR "Islamic Studies" AND "learning strategy" OR "teaching strategy" OR "instructional strategy" OR pedagogy AND school OR madrasah OR secondary OR primary. The third search yielded 134 documents initially and 58 after the initial screening. Documents that meet the relevance criteria and are available in full text are then further reviewed.

Inclusion and Exclusion Criteria

Inclusion criteria are used to ensure that the articles analyzed fit the focus of the research. Articles are included if they meet the following criteria: (1) Articles discuss Islamic Religious Education, Islamic Education, Islamic Religious Education, or Islamic learning that are relevant to the research context, (2) The research is in a relevant educational context, including elementary schools, high schools, madrasas, Islamic boarding schools, non-formal Islamic education, or studies that cover several levels of education, (3) Articles discuss strategies, models, approaches, learning methods, or pedagogical practices, (4) The article shows the relationship between learning strategies and critical thinking, higher order thinking skills, inquiry, problem solving, creativity, reasoning, cognitive flexibility, or other high-level thinking skills, (5) The article is available in a complete text document so that it can be thoroughly examined, (6) The article is a scientific publication indexed in Scopus.

An article is issued when: (1) The focus of the research is not related to PAI learning or Islamic education, (2) The article only discusses the management, policy, institutional, or administrative aspects of education without discussing the learning strategy, (3) The main focus of the article is language learning or other subjects and not PAI learning or Islamic education, (4) The article does not show a connection with the development of students' thinking skills, (5) The document cannot be obtained in the form of complete text so it is not possible to analyze the content, (6) The article is a duplicate of other search results.

Literature Selection Process

The results of the three search strategies were then combined as a single body of literature. The three strategies are used to capture relevant articles from different perspectives, namely the relationship between Islamic education and thinking skills, the context of PAI and students, and learning strategies or pedagogies in Islamic education. The search results of the three strategies are not summed up directly because there are articles that appear in more than one search strategy. All

documents were then examined based on titles, abstracts, research context, learning strategies, and the development of thinking skills. Articles that do not fit the focus of the research are excluded from the selection process.

The next stage involved checking the availability of full texts and reviewing the content of each article. Based on the entire selection process, 18 articles met the initial inclusion criteria. Furthermore, we examined source similarity because several articles appeared in more than one search result. This check identified 4 duplicate articles. After removing duplicates, we obtained 14 relevant articles and used them as the final corpus for the research. Thus, the literature selection process resulted in 14 articles for the data extraction and synthesis stage.

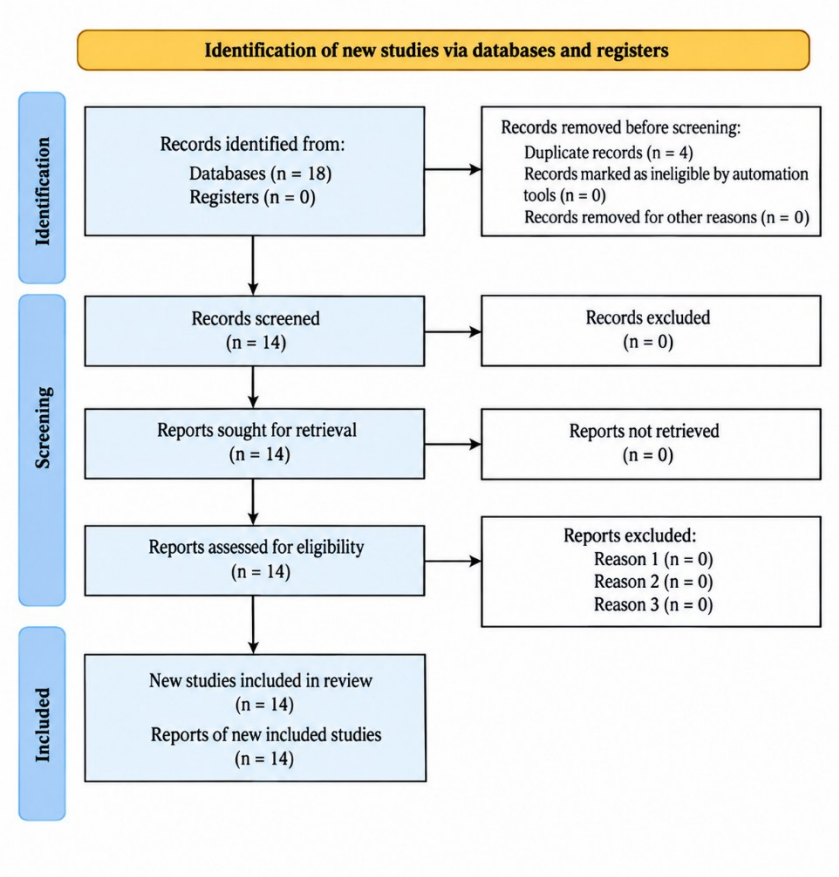

Figure 1. PRISMA Flow Diagram of Study Selection

RESULTS AND DISCUSSION

Characteristics of Analyzed Articles

The literature selection process resulted in 14 articles for further analysis. The articles were published between 2020 and 2026 and discuss learning strategies in Islamic Religious Education (PAI) related to the development of higher-level thinking skills. The research context includes elementary schools, secondary schools, madrasas, Islamic boarding schools, and non-formal Islamic education, as well as studies covering several levels of education. Based on these characteristics, secondary education is the most commonly found context in research on the

development of HOTS in PAI learning. However, the diversity of levels shows that developing high-level thinking skills is not limited to one particular age group or educational environment.

Table 1. Characteristics of Articles Analyzed in Systematic Literature Review

No.	Title	Author	Year	Context/Ability	Focus Level
1	*Epistemological Reconstruction of Islamic Education: Developing a Transformative Pedagogical Model to Foster Creativity*	Mardatillah et al.	2025	Islamic Education	Creativity, critical thinking, and intellectual independence
2	*Gamification and Adaptive Learning Innovations for Enhancing Students' Critical Thinking and Creativity*	Hendarman et al.	2026	SMA/Islamic Boarding School	Critical thinking and creativity
3	*Strengthening the Ideology of Islamic Religious Education in the Era of Technological Disruption*	Ismail et al.	2025	Madrasah Aliyah	Critical and philosophical thinking
4	*A Review of the Effects of Active Learning on High Order Thinking Skills: A Meta-Analysis within Islamic Education*	Karwadi et al.	2024	Elementary to university	HOTS
5	*Critical Thinking and Nonformal Islamic Education: Perspectives from Young Muslims in the Netherlands*	Altinyelken	2021	Non-formal Islamic education	Reflective critical thinking
6	*Development of Islamic Religious Education Materials Based on Religious Moderation in Forming Student Character*	Masturin	2022	SMA	Religious moderation and character building
7	*Improving Students' Inquiry Skills in Islamic Education Through Hikmah Pedagogy and Community of Inquiry*	Hussien et al.	2021	SMA	Inquiry and high-level thinking
8	*Integrating a Love-Based Curriculum and Pedagogical Deep Learning for Character Transformation*	Kesuma et al.	2026	Madrasah Aliyah	Critical reflection, ethical dialogue, and contextual problem-solving
9	*Islamic Religious Education Learning Strategy for Alpha Generation: A Case Study*	Khanif	2023	SD	Critical thinking, creativity, and problem-solving
10	*Transforming Fiqh Instruction Through the Cyber Scientific Approach: Enhancing Critical Thinking in Islamic Education*	Sapiudin et al.	2026	Madrasah Aliyah	Critical thinking and reasoning
11	*Probing Experiential Learning Approach in Islamic Religious Education*	Kistoro et al.	2023	SMA	Independent and critical thinking
12	*Applying Higher Order Thinking Skill (HOTS) to Strengthen Students' Religious Moderation*	Basri et al.	2022	Madrasah Aliyah	HOTS and critical thinking
13	*Jurisprudential Differences as a Pedagogical Tool for Developing Cognitive Flexibility*	Alsenaidi & Alhamidah	2026	Secondary education	Cognitive flexibility and high-level thinking
14	*Higher-Order Thinking Skills in Primary School: Teachers' Perceptions of Islamic Education*	Kosasih et al.	2022	SD	HOTS

Discovered Learning Strategies

The extraction of 14 articles revealed six groups of learning strategies: active and collaborative learning, inquiry and dialogue, contextual and experiential learning, technology and digital, transformative and student-centered learning, and reflective and value-based learning. The grouping is based on the main characteristics of the learning activities used in each study.

The findings show that there is no single learning model that is consistently a single strategy in the development of HOTS. Various strategies can be used during the learning design providing space for students to process information, provide reasons, compare perspectives, solve problems, and reflect. Thus, the effectiveness of strategies in the context of HOTS has more to do with the quality of the cognitive activities that are built rather than simply the name or category of the learning model.

Table 2. Grouping of Learning Strategies

Strategy Group	Form Strategy
Active and collaborative	Active learning, cooperative learning, PBL
Inquiry and dialogue	Hikmah Pedagogy, Community of Inquiry, inkuiri, dialog reflektif
Contextual and experiential	Contextual learning, experiential learning, Real projects
Technology and digital	Gamification, adaptive learning, Cyber Scientific Approach
Transformative and student-centered	Transformative pedagogy, pluralistic approach, student-centered learning
Reflective and value-based	Religious moderation, Love-Based Curriculum, ikhtilaf

In the active and collaborative learning groups, Karwadi (2024) through meta-analysis showed a positive contribution of active learning to the development of HOTS in Islamic education.[11] These findings are in line with Khanif (2023) who shows that cooperative and contextual learning can support student engagement, problem-solving, and critical thinking.[12] Masturin (2022) also shows that active learning combined with religious moderation materials can support creativity and problem-solving.[13]

Inquiry and dialogue strategies show different mechanisms. Hussien (2021) shows that Hikmah Pedagogy and the Community of Inquiry provide space for students to ask questions, provide reasons, defend opinions, and discuss.[14] Altinyelken (2021) also emphasizes the importance of reflective and dialogical pedagogy in providing opportunities for students to question and reflect on religious understanding.[15] Meanwhile, Alsenaidi and Alhamidah (2026)

[11] Karwadi et al., "A Review of the Effects of Active Learning on High Order Thinking Skills: A Meta-Analysis within Islamic Education."
[12] Khanif, "Islamic Religious Education Learning Strategy for Alpha Generation: A Case Study at Darul Qur'an School Elementary School Semarang City."
[13] Masturin, "Development of Islamic Religious Education Materials Based on Religious Moderation in Forming Student Character."
[14] Hussien et al., "IMPROVING STUDENTS' INQUIRY SKILLS IN ISLAMIC EDUCATION THROUGH HIKMAH PEDAGOGY AND COMMUNITY OF INQUIRY."
[15] H. K. Altinyelken, "Critical Thinking and Non-Formal Islamic Education: Perspectives from Young Muslims in the Netherlands," *Contemporary Islam* (The Research Institute of Child Development and Education, University of Amsterdam, Nieuwe Achtergracht 127, Amsterdam, 1018 WS, Netherlands) 15, no. 3 (2021): 267–85, https://doi.org/10.1007/s11562-021-00470-6.

show that differences of opinion in fiqh can be used as a pedagogical resource to encourage students to compare views and evaluate evidence.[16]

The same pattern is seen in contextual and experiential learning. Kistoro (2023) show that experiential learning helps students connect PAI material with real-life experiences.[17] Basri (2022) show that HOTS can be used to analyze the issue of religious moderation.[18] Kesuma (2026) also integrate critical dialogue, value reflection, and contextual problem-solving in PAI learning.[19] The findings show that real problems can serve as a stimulus that encourages students to use religious knowledge in the thought process.

The development of technology expands the forms of strategies that can be used. Hendarman (2026) show that gamification and adaptive learning are related to learning engagement, critical thinking, and creativity.[20] Sapiudin (2026) developed a Cyber Scientific Approach that integrates the exploration of digital sources with the Fiqh learning process.[21] These findings show that technology is not a learning goal, but serves as a means to obtain information, explore sources, and build thinking activities.

Thus, the results of the synthesis show that PAI learning strategies have diverse forms, but have the same characteristics. Strategies that support HOTS provide opportunities for students to become active actors in the learning process. These findings shift attention from the question of the most superior learning model to the question of how students' cognitive activity is designed within the model.

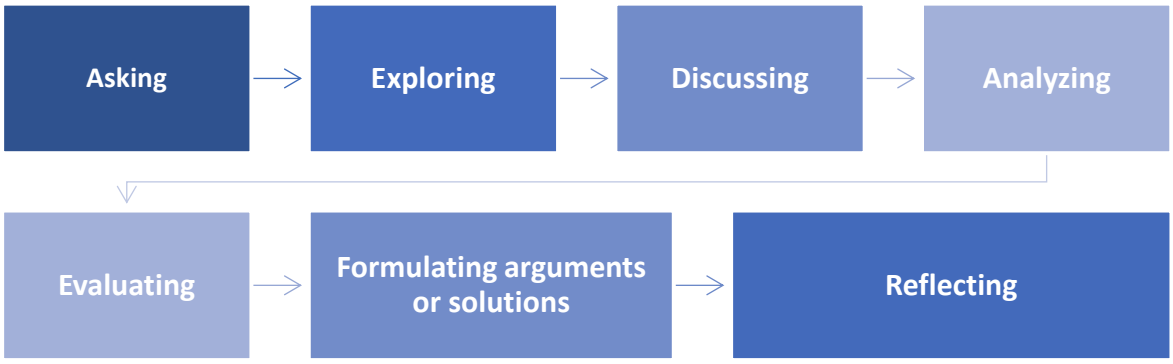

Figure 2. Learning Activities That Support HOTS

[16] S. Alsenaidi and F. Alhamidah, "Jurisprudential Differences as a Pedagogical Tool for Developing Cognitive Flexibility: An Empirical Study in Islamic Education," *Frontiers in Education* (College of Education, Curriculum and Instruction Department, Qassim University, Buraydah, Saudi Arabia) 11 (2026), https://doi.org/10.3389/feduc.2026.1780461.
[17] Kistoro et al., "PROBING EXPERIENTIAL LEARNING APPROACH IN ISLAMIC RELIGIOUS EDUCATION."
[18] Basri et al., "APPLYING HIGHER ORDER THINKING SKILL (HOTS) TO STRENGTHEN STUDENTS' RELIGIOUS MODERATION AT MADRASAH ALIYAH."
[19] Kesuma et al., "Integrating a Love-Based Curriculum and Pedagogical Deep Learning for Character Transformation in Indonesian Islamic Senior High Schools."
[20] Hendarman et al., "Gamification and Adaptive Learning Innovations for Enhancing Students' Critical Thinking and Creativity at an Islamic Boarding School in Indonesia."
[21] Hendarman et al., "Gamification and Adaptive Learning Innovations for Enhancing Students' Critical Thinking and Creativity at an Islamic Boarding School in Indonesia."

Learning Activities That Encourage HOTS

An analysis of 14 articles shows that student activities are the main link between learning strategies and higher thinking skills. Repetitive activities include questioning, information exploration, discussion, analysis, evaluation, problem-solving, argumentation, and reflection.

Questioning activities are one of the early forms of student cognitive engagement. Hussien (2021) show that the Community of Inquiry encourages students to generate questions and provide reasons for the views they present.[22] This pattern shows that students are not only accepting questions from the teacher, but are beginning to engage in the process of identifying problems that need to be understood. Information exploration is the next stage. Sapiudin (2026) show that the Cyber Scientific Approach provides opportunities for students to observe, ask questions, seek information, and process digital resources.[23] Mardatillah (2025) also emphasized the process of inquiry and knowledge construction in Islamic learning. These activities show a shift from receiving information to processing information.[24]

Discussion and argumentation then expand the thought process. Hussien (2021), Basri (2022), and Alsenaidi (2026) show the importance of students' ability to express opinions, defend arguments, and consider different views.[25] In the process, students do not produce enough answers. They also need to provide reasons that support the answer Analysis and evaluation activities strengthen the high-level thinking process. Students need to elaborate on information, compare opinions, assess evidence, and determine acceptable reasons. In PAI learning, these activities are relevant because the material is not only related to religious concepts, but also values, norms, and social life issues.

Reflection is an activity that completes the process. Kistoro (2023) show that learning experiences can be the basis for connecting experiences with PAI concepts.[26] Kesuma (2026) also showed the use of value reflection in learning.[27] Based on the overall pattern, these findings are important because they show that learning strategies function as structures, while cognitive activity is the mechanism that allows HOTS to develop. Therefore, changing the learning model without changing student activities does not necessarily result in HOTS-oriented learning.

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[22] Usama M. Ibrahem et al., "The Drivers of Change for Future Learning: How Teachers Were Taught in the COVID-19 Crisis and What Will Come Next?," *Sustainability* 15, no. 20 (2023): 14766, https://doi.org/10.3390/su152014766.
[23] S. Sapiudin et al., "Transforming Fiqh Instruction Through the Cyber Scientific Approach: Enhancing Critical Thinking in Islamic Education," *Jurnal Ilmiah Peuradeun* (Universitas Islam Negeri Syarif Hidayatullah Jakarta, Jakarta, Indonesia) 14, no. 1 (2026): 299–322, https://doi.org/10.26811/peuradeun.v14i1.2198.
[24] F. Mardatillah et al., "EPISTEMOLOGICAL RECONSTRUCTION OF ISLAMIC EDUCATION: DEVELOPING A TRANSFORMATIVE PEDAGOGICAL MODEL TO FOSTER CREATIVITY," *Jurnal Ilmiah Peuradeun* (Universitas Islam Negeri Ar-Raniry Banda Aceh, Indonesia) 13, no. 2 (2025): 1071–94, https://doi.org/10.26811/peuradeun.v13i2.2200.
[25] Ibrahem et al., "The Drivers of Change for Future Learning: How Teachers Were Taught in the COVID-19 Crisis and What Will Come Next?"; Basri et al., "APPLYING HIGHER ORDER THINKING SKILL (HOTS) TO STRENGTHEN STUDENTS' RELIGIOUS MODERATION AT MADRASAH ALIYAH"; Alsenaidi and Alhamidah, "Jurisprudential Differences as a Pedagogical Tool for Developing Cognitive Flexibility: An Empirical Study in Islamic Education."
[26] Kistoro et al., "PROBING EXPERIENTIAL LEARNING APPROACH IN ISLAMIC RELIGIOUS EDUCATION."
[27] Kistoro et al., "PROBING EXPERIENTIAL LEARNING APPROACH IN ISLAMIC RELIGIOUS EDUCATION."

Developed Thinking Skills

The results of the synthesis show that the thinking skills developed in PAI learning are not limited to critical thinking. The abilities found include critical thinking, analysis and evaluation, creativity, problem solving, argumentation, reflection, reasoning, cognitive flexibility, and ethical reasoning.

Critical thinking as well as analytical and evaluation skills are the most consistent abilities that emerge. These abilities develop through the activity of questioning information, analyzing problems, evaluating opinions, and providing reasons. Hendarman (2026),[28] Hussien (2021),[29] Sapiudin (2026),[30] and Kistoro (2023)[31] show that students' direct involvement in learning activities provides space for the development of these abilities.

Table 3. Developed Thinking Skills

Capabilities	Ability Form
Critical thinking	Questioning information, reasoning, analyzing, and evaluating ideas
Analysis and evaluation	Elaborating information, comparing arguments, and assessing evidence or opinion
Creativity	Generate ideas, alternatives, or products
Troubleshooting	Identify problems and find alternative solutions
Argumentation	Conveying and defending opinions based on reason
Reflection	Connecting experiences with concepts and values
Reasoning	Connecting information and providing a basis for a conclusion
Cognitive flexibility	Consider and compare different perspectives
Ethical reasoning	Consider moral values and consequences in understanding social and religious issues

Creativity arises when students not only search for answers that are already available, but come up with ideas or alternative solutions. Mardatillah (2025), Hendarman (2026), Masturin (2022), and Khanif (2023) show that learning that provides space for exploration and problem-solving can support creative abilities.[32], [33], [34], [35] Problem-solving is also an important skill in PAI learning. The problem used does not have to be an academic problem. Social and religious issues

[28] Hendarman et al., "Gamification and Adaptive Learning Innovations for Enhancing Students' Critical Thinking and Creativity at an Islamic Boarding School in Indonesia."
[29] Ibrahem et al., "The Drivers of Change for Future Learning: How Teachers Were Taught in the COVID-19 Crisis and What Will Come Next?"
[30] Sapiudin et al., "Transforming Fiqh Instruction Through the Cyber Scientific Approach: Enhancing Critical Thinking in Islamic Education."
[31] Kistoro et al., "PROBING EXPERIENTIAL LEARNING APPROACH IN ISLAMIC RELIGIOUS EDUCATION."
[32] Mardatillah et al., "EPISTEMOLOGICAL RECONSTRUCTION OF ISLAMIC EDUCATION: DEVELOPING A TRANSFORMATIVE PEDAGOGICAL MODEL TO FOSTER CREATIVITY."
[33] Hendarman et al., "Gamification and Adaptive Learning Innovations for Enhancing Students' Critical Thinking and Creativity at an Islamic Boarding School in Indonesia."
[34] Masturin, "Development of Islamic Religious Education Materials Based on Religious Moderation in Forming Student Character."
[35] Khanif, "Islamic Religious Education Learning Strategy for Alpha Generation: A Case Study at Darul Qur'an School Elementary School Semarang City."

can be used to encourage students to identify problems, consider alternatives, and determine solutions. Khanif (2023), Masturin (2022), and Ismail (2025) show such patterns in different learning contexts.[36], [37], [38]

Argumentation and cognitive flexibility are especially developed when learning brings students together with a variety of views. Hussien (2021) show the importance of defending opinions through reason.[39] Alsenaidi and Alhamidah (2026) show that ikhtilaf-based learning can help students consider more than one perspective.[40] Thus, differences of views can be used as a source of cognitive activity in PAI learning. Reflection and ethical reasoning reveal the special characteristics of HOTS development in the context of PAI. Kesuma (2026) show the integration of critical dialogue, value reflection, and contextual problem-solving.[41] The thought process is not only directed at solving problems, but also at understanding the consequences of actions and considering relevant values.

Thus, HOTS in PAI learning has a wider scope than critical thinking. HOTS includes the process of analyzing, evaluating, generating ideas, solving problems, crafting arguments, reflecting on experience, considering perspectives, and assessing ethical consequences. These abilities develop when students have the opportunity to actively process information and use it in meaningful contexts.

Synthesis of HOTS-Oriented PAI Learning Patterns

Based on the synthesis of 14 articles, Figure 3 illustrates the relationship between learning strategies, student activities, and thinking skills. This pattern, as illustrated in Figure 3, shows that learning strategies do not directly produce higher-order thinking skills. Instead, learning strategies provide a learning structure and environment that enable students to engage in cognitive activities. These activities then function as an intermediary process connecting learning strategies with the development of thinking skills. The identified strategies, including active learning, inquiry, dialogue, experiential learning, contextual learning, problem-based learning, and digital learning, employ different mechanisms to stimulate student activities. The Community of Inquiry, for example, emphasizes dialogue and questioning as the main learning activities, while experiential learning relies on direct experience and reflection. The Cyber Scientific Approach promotes the

[36] Khanif, "Islamic Religious Education Learning Strategy for Alpha Generation: A Case Study at Darul Qur'an School Elementary School Semarang City."
[37] Masturin, "Development of Islamic Religious Education Materials Based on Religious Moderation in Forming Student Character."
[38] Ismail Ismail et al., "STRENGTHENING THE IDEOLOGY OF ISLAMIC RELIGIOUS EDUCATION IN THE ERA OF TECHNOLOGICAL DISRUPTION," *Jurnal Ilmiah Ilmu Terapan Universitas Jambi* (Program Studi Pendidikan Kewarganegaraan, STKIP Budidaya Binjai, Sumatera Utara, Indonesia) 9, no. 2 (2025): 465–73, https://doi.org/10.22437/jiituj.v9i2.41841.
[39] Ismail et al., "STRENGTHENING THE IDEOLOGY OF ISLAMIC RELIGIOUS EDUCATION IN THE ERA OF TECHNOLOGICAL DISRUPTION."
[40] Alsenaidi and Alhamidah, "Jurisprudential Differences as a Pedagogical Tool for Developing Cognitive Flexibility: An Empirical Study in Islamic Education."
[41] Kesuma et al., "Integrating a Love-Based Curriculum and Pedagogical Deep Learning for Character Transformation in Indonesian Islamic Senior High Schools."

exploration of digital sources, whereas ikhtilaf-based learning encourages comparison of differing opinions and evaluation of evidence.

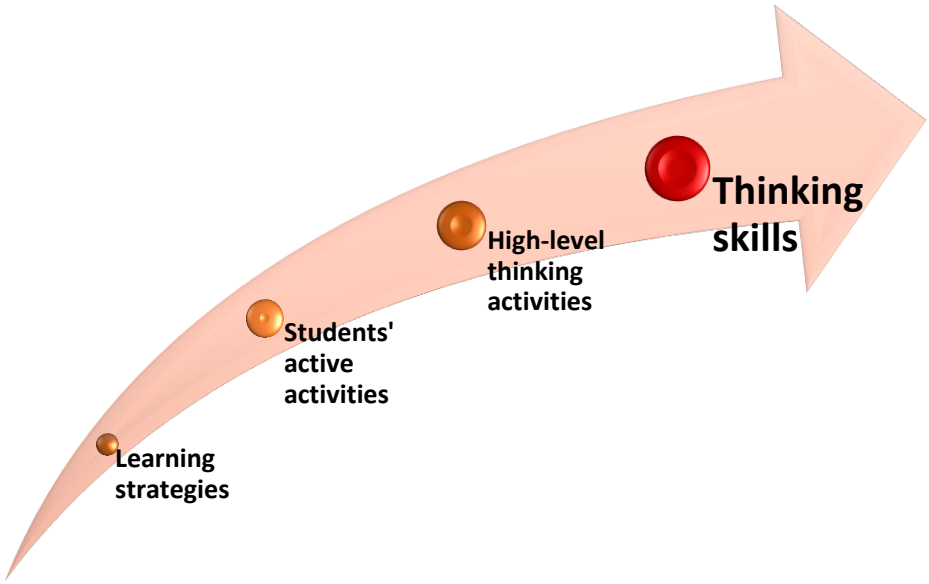

Figure 3. Synthesis of PAI Learning Strategies in HOTS Development

Although the mechanisms are different, the strategies have a common point in student cognitive engagement. Students are given the opportunity to ask questions, explore, analyze, evaluate, discuss, argue, solve problems, and reflect. These activities are then related to the development of critical thinking, creativity, problem-solving, argumentation, reflection, reasoning, and cognitive flexibility. These findings explain why different strategies can result in relatively similar thinking abilities. The main difference between strategies lies in the way learning activities are designed. Thus, teachers do not have to use one particular learning model to develop HOTS. The selection of strategies can be adjusted to the material, student characteristics, learning resources, and learning conditions. It is more important to ensure that the strategy provides activities that demand the cognitive involvement of the students.

Implications for PAI Learning

The results of the synthesis imply that the development of HOTS in PAI can be started from the design of learning activities, not solely from changing the learning model. Teachers can use the learning models that are available as long as they are able to provide space for students to think and participate actively. Learning can start with problems or stimuli that are relevant to the material. Students are then directed to ask questions, seek information, compare opinions, analyze problems, and evaluate information. The process can be continued with the preparation of arguments, alternative solutions, or reflections.

The strategy also needs to be adjusted to the characteristics of PAI material. Aqidah material can be directed to problem analysis and argumentation. Fiqh material can use comparison of opinions and case studies. Moral material can use real-life problems and reflection. Islamic Cultural

History material can use event analysis and perspective comparison.[42] As such, HOTS is not placed as an additional component that is separate from PAI learning. Thinking ability is part of the process of understanding, assessing, and applying religious knowledge. This pattern also shows that HOTS-oriented PAI learning can be built through the integration of learning strategies, students' cognitive activities, and the context of values contained in PAI materials.

CONCLUSION

Based on the results of the Systematic Literature Review of 14 articles, the development of Higher Order Thinking Skills (HOTS) in Islamic Religious Education (PAI) learning is carried out through various learning strategies, such as active and collaborative learning, inquiry and dialogue, experiential contextual learning, the use of digital technology, and value-based reflective learning. Although the strategies used are diverse, they all show the same pattern, which is to provide space for students to actively engage in the process of higher-level thinking.

The results of the synthesis show that the development of HOTS is not solely determined by the type of learning model, but rather by the quality of the cognitive activity built into it. These activities include asking questions, exploring information, discussing, analyzing, evaluating, solving problems, arguing, and reflecting. These activities are the main link between learning strategies and the development of students' thinking skills, as well as showing that HOTS in PAI encompasses broader abilities than just critical thinking, such as creativity, ethical reasoning, cognitive flexibility, and problem-solving.

Overall, this study emphasizes that HOTS in PAI learning develops through the integration of learning strategies, students' cognitive activities, and the internalization of Islamic values. Therefore, PAI teachers not only need to choose the right learning model, but also design activities that encourage students to think actively, reflectively, and contextually according to the teaching material. However, this study has limitations because it only includes articles from the Scopus database with a wide variety of contexts, so it is not intended to determine one of the most effective strategies. Further research is recommended to test these findings empirically and develop a PAI learning model that is more integrated with HOTS reinforcement.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

In the preparation of this manuscript, the authors utilized ChatGPT (OpenAI) to assist with the organization and refinement of language and selected sections of the manuscript. Microsoft Word Translator was used to assist with the translation of text between Indonesian and English, while Grammarly was used to support grammar, spelling, punctuation, and language checking. All

[42] Muhammad Alqadri Burga and Muljono Damopolii, "Humans as Pedagogical Beings: An Alternative Paradigm for Developing Islamic Education in Indonesia," *Adabuna: Jurnal Pendidikan Dan Pemikiran* 5, no. 1 (2025): 60–79, https://doi.org/10.38073/adabuna.v5i1.3746; Eka Chandra Oktaviani et al., "IHSAN (Islamic Healing & Self-Awareness Narrative): An Islamic Expressive Writing Model for Strengthening Emotional Regulation in Madrasah Adolescents," *Al-Musyrif: Jurnal Bimbingan Dan Konseling Islam* 9, no. 1 (2026): 10–34, https://doi.org/10.38073/almusyrif.v9i1.4441.

outputs were subsequently reviewed, verified, and revised by the authors. The authors assume full responsibility for the accuracy, originality, interpretation, and final content of the publication.

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