Indonesian Journal Education
Vol. 4, No. 4, November 2025, pp. 112~122

Development of an Inquiry Learning Model in Islamic Religious Education to Improve Students Critical Thinking Skills at Yayasan Pendidikan Islam Yahdi

Winna Nabillah[1], Munawir Pasaribu[2], Robie Fanreza[3]
[1,2,3]Universitas Muhammadiyah Sumatera Utara, Indonesia
E-mail: nabillahwinna@gmail.com; munawirpasaribu@umsu.ac.id; robiefanreza@umsu.ac.id

ABSTRACT

This study aims to develop an inquiry-based learning model in Islamic Religious Education (PAI) to enhance students' critical thinking skills at Yayasan Pendidikan Islam Yahdi. The core problem identified is that PAI learning remains predominantly teacher-centered, resulting in passive student participation and limited development of critical thinking abilities. The research employed a Research and Development (R&D) approach using the ADDIE model, which consists of the stages of analysis, design, development, implementation, and evaluation. The research subjects included one Islamic Religious Education teacher and 25 fifth-grade students at SD Swasta Yahdi. Expert validation results showed an average feasibility score of 88.3%, categorized as "Highly Feasible." The practicality test obtained an average score of 4.45, indicating that the model was "Highly Practical." During implementation, students demonstrated increased activity, motivation, and reflective thinking in understanding Islamic values. Teachers also reported that the learning process became more interactive, engaging, and meaningful. Overall, the developed inquiry-based learning module was declared feasible, practical, and effective in improving students' critical thinking skills in Islamic Religious Education at the elementary school level.

Keyword: critical thinking; inquiry-based learning model; Islamic religious education

Corresponding Author:
Winna Nabillah,
Universitas Muhammadiyah Sumatera Utara,
Jl. Kapten Muchtar Basri No.3, Glugur Darat II, Kec. Medan Tim., Kota Medan, Sumatera Utara 20238, Indonesia
Email: nabillahwinna@gmail.com

1. INTRODUCTION

Education has a strategic role in shaping Indonesian people who are faithful, pious, noble in character, and knowledgeable, as mandated in the Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System. In the framework of modern education, learning is required not only to develop cognitive aspects but also to foster higher-order thinking skills (HOTS), especially critical thinking skills that enable students to analyze information, evaluate arguments, and make rational decisions. Ennis (2011) and Fisher (2008) emphasize that critical thinking is a reflective and logical process that has become an essential 21st-century skill.

In the Islamic perspective, the ability to use reason and think deeply is a fundamental teaching. The Qur'an repeatedly encourages humans to think critically and take lessons from life phenomena. Verses that explicitly invite humans to reflect include:

1. Q.S. Ali Imran [3]: 190–191

إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ لَآيَاتٍ لِأُولِي الْأَلْبَابِ

الَّذِينَ يَذْكُرُونَ اللَّهَ قِيَامًا وَقُعُودًا وَعَلَىٰ جُنُوبِهِمْ وَيَتَفَكَّرُونَ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ ۚ رَبَّنَا مَا خَلَقْتَ هَٰذَا بَاطِلًا ۚ سُبْحَانَكَ فَقِنَا عَذَابَ النَّارِ

"Indeed, in the creation of the heavens and the earth and the alternation of the night and the day are signs for people of understanding."

"Those who remember Allah while standing, sitting, and lying on their sides, and reflect on the creation of the heavens and the earth…."

2. Q.S. Az-Zumar [39]: 9

قُلْ هَلْ يَسْتَوِي الَّذِينَ يَعْلَمُونَ وَالَّذِينَ لَا يَعْلَمُونَ ۗ إِنَّمَا يَتَذَكَّرُ أُولُوا الْأَلْبَابِ

"Say, 'Are those who know equal to those who do not know?' Only those who possess understanding will take heed."

This verse emphasizes the importance of intellect and the pursuit of knowledge.

3. Q.S. An-Nahl [16]: 125

ادْعُ إِلَىٰ سَبِيلِ رَبِّكَ بِالْحِكْمَةِ وَالْمَوْعِظَةِ الْحَسَنَةِ وَجَادِلْهُم بِالَّتِي هِيَ أَحْسَنُ

"Invite to the way of your Lord with wisdom and good instruction, and argue with them in the best and most gracious manner."

This verse indicates the importance of reasoning, dialogue, and presenting logical arguments.

In Islamic Religious Education (PAI), critical thinking skills play an important role in helping students understand Islamic teachings deeply, contextually, and reflectively. However, initial observations at Yayasan Pendidikan Islam Yahdi show that the PAI learning process is still dominated by lecture and memorization methods. This teacher-centered approach makes students passive; around 65% of students are unable to analyze religious issues contextually and 70% struggle to answer questions requiring critical reasoning. These findings align with studies by Nurmalikha (2010) and Trisnawati (2024), which state that conventional PAI learning inhibits analytical ability, reflection, and active student participation.

To address this issue, a learning model that positions students as active participants in the knowledge-seeking process is needed. The inquiry learning model is considered relevant because it encourages students to ask questions, investigate, and discover concepts independently. This approach aligns with the constructivist theories of Piaget and Vygotsky and has been proven to enhance analysis, motivation, and student engagement (Dita, 2021).

Based on the above explanation, the main problem of this study is the low critical thinking ability of students due to the dominance of conventional and teacher-centered PAI methods. Therefore, this study explicitly aims to develop an inquiry-based learning model in Islamic Religious Education to improve students' critical thinking skills at Yayasan Pendidikan Islam Yahdi. The research results are expected to provide theoretical contributions to PAI learning innovation and practical benefits for teachers to improve learning quality.

Pat Joyce & Weil (1980) in Nurlaela (2021) state that the general purpose of the inquiry learning model approach is to help students ask questions driven by curiosity and to foster compliance and intelligent knowledge needed to develop their own arguments. The inquiry approach aligns with the constructivist theories proposed by Piaget (1970) and Vygotsky (1978), who argue that knowledge is built through active experience and social interaction. Through inquiry-based learning, students are encouraged to construct their own understanding rather than merely receiving information from teachers. In the context of PAI, this enables students to understand Islamic teachings more deeply and relate them to real-life phenomena so that Islamic values can be internalized holistically.

2. LITHERATURE REVIEW

A. Concept of Critical Thinking

Critical thinking is the ability to analyze, evaluate, and conclude information logically and reflectively. Ennis (2011) defines critical thinking as a rational thought process focused on making decisions about what to believe or do. Fisher (2008) adds that critical thinking involves judging and evaluating arguments through systematic reasoning.

In the context of education, critical thinking is part of Higher Order Thinking Skills (HOTS), which require students to interpret information, connect concepts, and solve problems independently. This skill is essential to prepare students for social dynamics and the demands of modernization, which require analytical competence and responsible decision-making.

From the Islamic perspective, the use of reason and the ability to think rationally are strongly emphasized. Verses such as Surah Ali Imran 190–191 and Surah Az-Zumar 9 indicate that deep contemplation and deriving lessons are characteristics of people of understanding (*ulu al-albab*). Thus, developing critical thinking is not only a pedagogical necessity but also an Islamic obligation.

B. Concept of Inquiry in the Inquiry Learning Model

The inquiry learning model is rooted in the constructivist approach, which emphasizes that knowledge is built through active experience. Joyce & Weil (2003) explain that inquiry is a learning process that encourages students to ask questions, gather data, analyze it, and discover learning concepts themselves. Thus, students do not receive knowledge passively but construct it through investigation.

Theoretically, the inquiry model is supported by Piaget's (1970) ideas on the importance of direct experience in intellectual development and Vygotsky's (1978) emphasis on the role of social interaction in

constructing knowledge through *scaffolding*. The inquiry model cultivates learning independence, argumentation skills, and problem-solving abilities because students participate directly in discovering truth through observation and reasoning.

The core processes of inquiry include identifying problems, formulating questions, collecting and processing information, drawing conclusions, and reflecting on findings. These stages naturally train critical, analytical, and reflective thinking skills.

C. Relevance of the Inquiry Model in Islamic Religious Education

Islamic Religious Education (PAI) does not only aim to transfer religious knowledge but also to guide students in understanding, internalizing, and practicing Islamic values in daily life. To achieve this goal, PAI learning should encourage students to think deeply, reason critically about religious facts, and relate Islamic teachings to social realities.

The inquiry model is highly relevant in PAI learning because:

1. It aligns with Islamic values regarding the use of intellect.

The Qur'an repeatedly commands Muslims to think, reflect on creation (Surah Ali Imran 190–191), consider the consequences of actions (Surah Al-Baqarah 219), and seek knowledge with wisdom (Surah An-Nahl 125).

2. It encourages meaningful understanding rather than memorization.

Through investigation, students discover the wisdom behind Islamic teachings instead of merely repeating information.

3. It helps students connect Islamic teachings to real-life contexts.

Inquiry supports analysis of social phenomena through Islamic values so students can apply religious teachings in contemporary situations.

4. It aligns with the goals of PAI to shape character and intellectual competence.

Inquiry fosters curiosity, independence, and the ability to resolve moral-religious issues through critical reasoning.

3. RESEARCH METHOD

This study used the Research and Development (R&D) method with the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). This method was chosen because it is suitable for producing a valid and effective learning model. The product developed was a PAI learning module as a supporting tool for the implementation of an inquiry-based learning model in elementary schools.

The study was conducted at Yayasan Pendidikan Islam Yahdi, with a focus on the SD Swasta Yahdi Helvetia unit, Deli Serdang Regency, North Sumatra. The selection of this location was based on the consideration that the school has diverse student characteristics and requires learning innovations that encourage critical thinking activities. The research was carried out over five months and involved a PAI teacher as the learning implementer and fifth-grade students as the subjects of the model application.

The development stages followed the ADDIE model procedure. The analysis stage was conducted to identify learning needs, student characteristics, and teacher challenges in developing critical thinking skills. The design stage included the planning of the inquiry learning model and its components, including objectives, learning syntax, and evaluation tools. The development stage involved compiling the module and learning steps, which were then validated by two experts—namely, a PAI subject-matter expert and an instructional design expert. The implementation stage was conducted through a limited trial in the fifth-grade class of SD Swasta Yahdi Helvetia. The evaluation stage was used to assess the effectiveness of the model and the practicality of the resulting module.

Table 1. Addie Stage

ADDIE Stage	Main Activities	Output
Analysis	Observation of PAI learning, needs analysis, problem identification	Map of learning needs and problems
Design	Designing inquiry flow, media, student worksheets, evaluation instruments	Blueprint of the learning module
Development	Creating initial product, expert validation, revision	Feasible inquiry module
Implementation	Trial with fifth-grade students	Data on student activity and responses
Evaluation	Formative and summative evaluation, effectiveness analysis	Final module and effectiveness results

4. RESULTS AND DISCUSSION

A. Results

1) Analysis

The analysis stage in this study aimed to explore and understand the needs, problems, and real conditions in the Islamic Religious Education (PAI) learning process at SD Swasta Yahdi. The results of this analysis served as the foundation for designing an inquiry-based learning model that is appropriate for the learning context and effective in improving students' critical thinking skills. At this stage, the researcher carried out a series of activities including needs analysis, curriculum analysis, learner characteristics analysis, and analysis of the learning environment and teacher competence.

Based on the needs analysis phase, observations and interviews revealed that the PAI learning process—particularly the Aqidah Akhlak subject—at SD Swasta Yahdi was still teacher-centered. Teachers tended to use lecture methods and simple assignments. Students appeared passive and had not yet demonstrated the ability to ask questions, express opinions, or analyze PAI values in depth. This indicates the need to develop a learning model that can foster active participation and critical thinking skills, one of which is the inquiry-based learning model.

In the curriculum analysis stage, the researcher examined the Merdeka Curriculum documents, specifically the Aqidah Akhlak subject, to identify alignment between learning objectives and the principles of inquiry. The curriculum analysis showed that PAI learning objectives align with the inquiry approach, which emphasizes the process of seeking meaning through observation, reasoning, and examination. The PAI learning outcomes require students not only to know Islamic teachings cognitively, but also to understand, analyze, and apply them in real-life contexts.

In the learner characteristics analysis stage, the researcher collected data regarding the characteristics of fifth-grade students at SD Swasta Yahdi, such as age, socio-religious background, learning styles, and initial thinking abilities. Based on the results of questionnaires and observations, the majority of students showed high curiosity but lacked confidence in expressing their opinions. They preferred learning that involved exploratory activities and group work. This condition indicates that the implementation of the inquiry model will provide space for students to learn through discovery and active reflection.

In the analysis of the learning environment and teachers, the researcher examined the conditions of facilities and infrastructure, availability of media, and teacher competence in managing PAI learning. Interviews with the PAI teacher indicated that the learning facilities at SD Swasta Yahdi were adequate; however, the teacher still experienced difficulties in implementing the inquiry-based learning model due to limited experience and references. Therefore, a learning model design that is easy to understand and practical for teachers is required.

2) Design

In the design stage, the researcher began designing the development product in the form of an Islamic Religious Education and Character module for the Aqidah Akhlak subject with the material "Respect and Obedience to Parents and Teachers." This module was designed based on the findings from the previous analysis stage, which showed that Aqidah Akhlak learning was still dominated by lecture methods and simple printed media. Therefore, the module design focused on presenting learning that is more interactive, reflective, and contextual by using the Inquiry Learning model.

The first step taken was to prepare the structural framework of the module, which consists of:

1. Module cover, designed using Canva with a combination of soft Islamic-themed colors and child-friendly illustrations. The cover contains the module identity, name of the compiler, class/educational unit, and subject.
2. Module identity page, which includes the name of the compiler, school, phase/class/semester, time allocation, elements, material, student profile, learning model, and the facilities and infrastructure used.
3. Introduction section, learning outcomes (CP), learning objective flow (ATP), learning objectives, and learning achievement criteria in cognitive, affective, and psychomotor aspects.
4. Main module section, which contains learning activities based on the six stages of the Inquiry Learning model, namely:
   (1) orientation,
   (2) formulating problems,
   (3) formulating hypotheses,
   (4) collecting data,
   (5) testing hypotheses, and
   (6) drawing conclusions.
   Each stage is designed in the form of activities involving self-reflection, observation of Qur'anic verses and hadiths, and writing and discussion activities.

5. Assessment section, which includes formative, summative, and performance assessments, complemented with a 1–4 scale scoring rubric for knowledge, attitude, and skill aspects.
6. Enrichment and remedial section, which contains extended activities such as the mini project "Respect Action in My School" and a student reflection journal titled "My Good Deed This Week."
7. Student Worksheet (LKPD), designed so students can independently record the results of their reflections, hypotheses, and personal conclusions.

The following is the result of the module design in each of its sections.

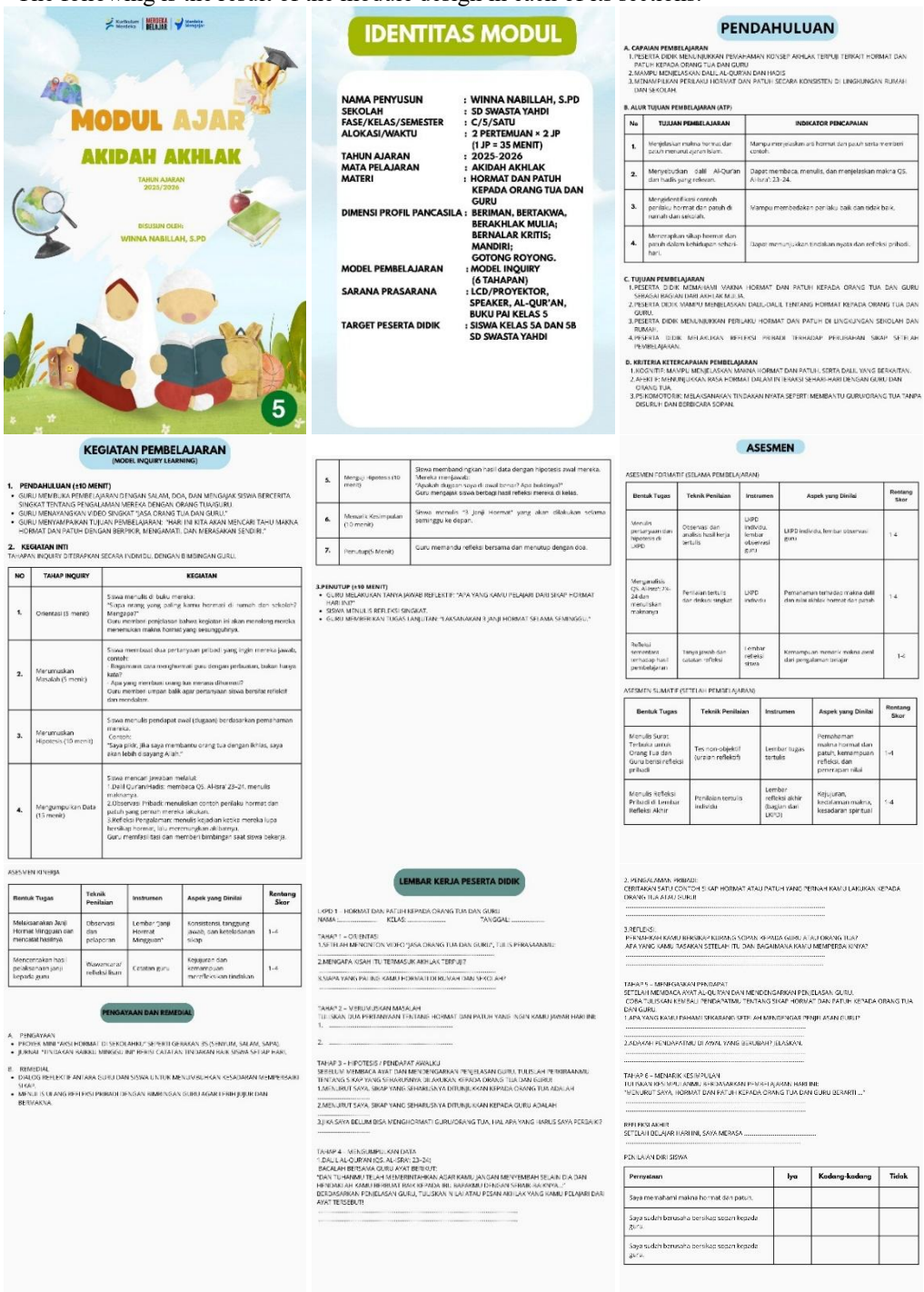

Figure 1. Design Module

3) Development

In the development stage, the process began by conducting validation of the learning module product. This validation aimed to assess the feasibility level and quality of the developed learning module. The assessment was carried out by 3 validators, consisting of two religious studies teachers and one curriculum

vice principal. The validation process was conducted to evaluate several aspects, including content, appearance, and integration within learning. Each validator provided an assessment through two stages to obtain an optimal final result. To ensure product quality, this development stage was carried out through two main activities, namely expert validation testing and user practicality testing.

In the expert validation test, the assessment was conducted in two stages: the first stage to obtain input and suggestions for improvement, and the second stage after revising the module to ensure the suitability of the revisions.

The assessment results from the validators are presented in the following table:

Table 2. Validation Results of the Inquiry-Based PAI Learning Module

Aspects Assessed	Validator 1	Validator 2	Validator 3	Average	Criteria
Content and Material	90%	88%	92%	90%	Very Feasible
Appearance and Design	85%	87%	89%	87%	Very Feasible
Learning Integration	88%	90%	86%	88%	Very Feasible
Average				**88.3%**	**Very Feasible**

Based on the validation results, the module obtained an average score of 88.3% with the category "Very Feasible." This means the module has met the feasibility standards and can be used with minor revisions. The suggestions from the validators included improving page layout, simplifying the language to make it easier for students to understand, and adding inquiry activity examples that are relevant to students' daily lives.

After the module was declared feasible by the experts, the next stage was the practicality test, which aimed to determine the ease of use of the module by teachers and students. This test was conducted on a limited basis involving 1 PAI teacher and 25 fifth-grade students at SD Swasta Yahdi.

Table 3. Practicality Test Results of the Learning Module

Practicality Aspect	Average Score (1–5)	Category
Ease of use	4.5	Very Practical
Attractiveness of activities	4.3	Practical
Clarity of instructions	4.6	Very Practical
Accuracy of implementation time	4.4	Practical
Average	**4.45**	**Very Practical**

Based on the practicality test results, an average score of 4.45 was obtained, which falls under the "Very Practical" category. This means that the inquiry learning module is easy to use by both teachers and students, both in terms of appearance and the steps of learning activities.

4) Implementation

The implementation stage is a follow-up step after the inquiry-based learning module product was declared feasible and practical based on expert validation results and limited trials. The main purpose of this stage is to test the application of the module in an actual learning environment, as well as to observe the real responses of teachers and students in the context of Islamic Religious Education (PAI) learning activities. The implementation was carried out with 1 PAI teacher and 25 fifth-grade students at SD Swasta Yahdi.

The PAI teacher who implemented the learning activities expressed a very positive response to the use of the module. The teacher assessed that the inquiry module encouraged students to become more active and reflective in understanding the values of respect and obedience. In addition, the teacher felt supported because the module provided a systematic guide to the steps of inquiry learning that suited the characteristics of elementary school students.

The teacher also stated that learning activities became more interactive, enjoyable, and meaningful because students were not only reading or listening to advice, but also discovering the meaning of respectful behavior through inquiry activities. Based on observations and interviews, the teacher gave an average score of 4.6 (Very Good category) for the implementation of the module in learning.

After the learning activity, students filled in a response questionnaire that included aspects of engagement, material understanding, learning motivation, teamwork, and critical thinking skills. The results can be seen in the table below:

Table 4. Student Response Results

No	Aspect	Total Score	Category
1	Engagement in learning activities	4.6	Very Good
2	Ability to understand the values of respect and obedience through inquiry	4.5	Very Good
3	Curiosity and learning motivation	4.7	Very Good
4	Critical thinking ability in drawing conclusions	4.3	Good
5	Ability to work collaboratively in groups	4.4	Very Good
	Overall Average	**4.5**	**Very Good**

Based on the table above, it can be concluded that the inquiry learning module fosters students' interest, participation, and deeper understanding of moral values. Students became more appreciative of the role of parents and teachers and were able to relate religious concepts to their everyday personal experiences.

5) Evaluation

The evaluation stage is the final process in the ADDIE development model, which aims to assess the overall success and final feasibility of the inquiry-based learning module that has been developed. Evaluation was conducted summatively by reviewing the validation results, implementation, and user responses to the product.

Based on the validation and trial results in the previous stages, the inquiry learning module received an assessment in the "Very Good" category. The teacher gave an average score of 4.6, while student responses showed an average of 4.5, both of which indicate that the module is considered feasible, engaging, and effective for use in Islamic Religious Education learning.

These results demonstrate that the inquiry-based learning module developed has met the criteria of feasibility, practicality, and effectiveness, and is capable of enhancing student engagement and critical thinking skills in understanding PAI values, especially the topic of Respect and Obedience to Parents and Teachers.

B. Research Findings

The research findings are presented based on the stages of developing the ADDIE model, including analysis, design, development, implementation, and evaluation.

1) Analysis Stage

The needs analysis showed that Islamic Religious Education learning at Yayasan Pendidikan Islam Yahdi was still dominated by lecture methods, memorization, and assignments without opportunities for exploration. A total of 65% of students were not yet able to reason about religious issues contextually, and 70% had difficulty answering questions requiring critical reasoning. These findings are in line with Mirrota (2024), who found that PAI learning in schools often does not provide space for students to construct understanding independently.

2) Design Stage

The design stage produced an inquiry module design that included components of problem identification, exploration, data collection, analysis, and Islamic reflection. The design concept referred to the inquiry model framework by Joyce, Weil, & Calhoun (2011) and the constructivist principles of Piaget–Vygotsky. The module design was also aligned with Islamic values so that learning is not only cognitively oriented but also affective–spiritual.

3) Development Stage

At the development stage, the module was evaluated by a subject-matter expert, an instructional design expert, and a PAI teacher. The validation results showed an average feasibility level of 88.3%, categorized as "Very Feasible." The experts assessed that the module fits the characteristics of elementary school students, has a logical sequence of activities, and contains Islamic values. These findings are consistent with the study by Muhammad Rizqy Fadhlan & Zailani (2025), which showed that modules based on Islamic values tend to receive high feasibility ratings because they align with students' religious needs.

4) Implementation Stage

Implementation was carried out with 25 fifth-grade students through three sessions. During the learning process, students appeared more active in asking questions, investigating religious phenomena, discussing, and connecting the material with daily experiences. The teacher reported that learning became more participatory and meaningful because students were not merely receiving information but constructing their own understanding. This increase in activity aligns with the findings of Azmar & Nurhilaliati (2021), which showed that the inquiry model based on Islamic values significantly enhances students' motivation and learning outcomes.

5) Evaluation Stage

Evaluation was conducted through observations, practicality questionnaires, and critical thinking ability tests. The practicality results showed an average score of 4.45 (category: "Very Practical"). The module was considered easy to use, the activity steps were clear, and the instruction was effective for the elementary level. In addition, students' critical thinking skills improved, as reflected in more analytical answers, more logical reasoning, and the ability to relate Islamic teachings to real-life contexts.

This improvement is consistent with the research of Hamdani, Prayitno, & Karyanto (2019), which proved that active learning strategies significantly enhance critical thinking skills.

C. Discussion

1) Effectiveness of the Inquiry Model in Improving Critical Thinking

The research findings show that the inquiry model is effective in improving the critical thinking skills of PAI students. Students were able to engage in higher-order thinking processes such as reasoning, evaluating, and drawing conclusions about religious information. This aligns with constructivist theory, which states that knowledge is acquired through active participation in learning experiences (Piaget; Vygotsky). The study by Azmar & Nurhilaliati (2021) also supports this finding, showing that the inquiry model can

improve learning outcomes and analytical abilities of elementary students when Islamic values are integrated into the investigative process.

2) Compatibility of the Inquiry Model with PAI Learning

The integration of investigative activities with Islamic values makes learning more relevant for students. The module developed not only guides students in discovering concepts but also encourages them to reflect on Islamic values such as honesty, responsibility, and wisdom in every learning process. This finding is consistent with Arifin et al. (2023), who emphasized that Islamic education becomes effective when character values are internalized through real-life experiences, not merely through lectures. Thus, inquiry provides space for deeper and more meaningful internalization of values.

3) Improvement of Learning Activity and Motivation

The implementation of the module encouraged students to be more active in asking questions, engaging in discussions, and connecting learning material with daily life. This activeness also indicates that the inquiry model can reduce boredom that often occurs in lecture-based learning.

This is supported by Harfiani & Fanreza (2019), who found that active learning approaches improve concept understanding as well as creativity among early childhood education students.

Table 5. Comparison of Previous Studies with This Study

No	Researcher & Year	Title / Research Focus	Method / Subject	Main Findings of Previous Research	Relevance to This Study	Similarities	Differences
1	Azmar & Nurhilaliati (2021)	Influence of the Islam-Value-Based Inquiry Model in Elementary Science	Quasi-experiment, students of SDN 219 Sinjai	Inquiry increases motivation, learning outcomes, and students' analytical abilities.	Reinforces that inquiry can improve critical thinking and student participation in PAI.	Both use inquiry approach; both in elementary school context.	Their study focuses on Science; this study focuses on PAI and module development.
2	Hamdani, Prayitno, & Karyanto (2019)	Improving Critical Thinking through Experimental Method	Classroom Action Research (CAR), high school students	Active learning significantly increases critical thinking skills.	Supports that activity-based learning models—including inquiry—are effective for HOTS.	Both improve critical thinking.	This study uses inquiry & module; Hamdani uses experimental method.
3	Mirrota (2024)	Challenges of PAI Learning in Inclusive Schools	Qualitative study	PAI is still dominated by lectures; students are less independent in thinking.	Strengthens the research background that PAI remains teacher-centered.	Both highlight the issue of low independent thinking.	Mirrota focuses on inclusion; this study focuses on developing a learning model.
4	Arifin et al. (2023)	Character Education Model for Santri in Islamic Boarding Schools	Qualitative, Muhammadiyah boarding school	Internalization of values is effective when based on real-life experiences.	Supports integrating Islamic values into the inquiry process in PAI.	Both emphasize Islamic values as core to learning.	Focuses on boarding school, not elementary school; does not use inquiry.
5	Harfiani & Fanreza (2019)	Active Learning (Practicum Lesson Study) to Improve Concept Understanding	CAR, university students	Participatory learning activities improve understanding and creativity.	Relevant to the finding that student activeness in inquiry improves learning outcomes.	Both emphasize collaborative and active learning.	Their study is at university level.
6	Nabillah & Tanjung (2023)	Interactive Canva Media in PAI Learning	R&D, junior high school students	Interactive media increases student engagement and understanding of PAI concepts.	Reinforces that innovative strategies (including inquiry) are effective for increasing PAI engagement.	Both focus on improving PAI learning effectiveness.	They focus on digital media; this study focuses on an inquiry model.
7	Fadhlan & Zailani (2025)	Development of Akhlak Learning Module	R&D, SMA An-Nizam IBS	Islamic value-based modules obtain high	Supports that PAI modules aligned with student	Both develop Islamic value-based modules.	Their focus is Akhlak at high school level; this study

No	Researcher & Year	Title / Research Focus	Method / Subject	Main Findings of Previous Research	Relevance to This Study	Similarities	Differences
				feasibility (validity).	characteristics tend to be feasible.		focuses on PAI at elementary level using inquiry.
8	Effendi, Zainuddin & Ahmad (2022)	Learning Evaluation Using the Kirkpatrick Model	Evaluative study	Systematic evaluation (reaction, learning, behavior) is important for learning quality.	Relevant for the evaluation stage of the inquiry module, which also considers feasibility and effectiveness.	Both evaluate learning quality.	Not focused on inquiry model.
9	Khasinah (2022)	Need Analysis in Curriculum Development	Theoretical analysis	Needs analysis is an essential stage in educational R&D.	Supports the needs analysis stage in the development of the inquiry module.	Both emphasize the importance of needs analysis.	Khasinah is conceptual; this study is practical-applied.

This study produced an inquiry-based module to improve students' critical thinking skills and participation in PAI learning. This model is considered relevant because it provides opportunities for students to discover the meaning of Islamic values through reflective and exploratory activities. This aligns with constructivist theory, which explains that knowledge is actively constructed by individuals through direct experience and interaction with their environment.

Inquiry-based learning in Islamic Religious Education encourages students to construct their own understanding of Islamic teachings through processes of discovery, reflection, and internalization of Islamic values that are applicable in daily life. Thus, the inquiry-based module not only improves critical thinking skills but also strengthens student engagement and active participation in meaningful learning processes.

The results of the needs analysis stage showed that PAI learning was still teacher-centered and did not sufficiently foster active student participation. The needs analysis in the initial instructional development stage is an important step to ensure that the learning product design produced truly addresses the problems and real needs in the educational field.

The module design was developed based on learning principles that emphasize integration and systematic alignment between content organization, learning activities, and assessment, so that all learning components work harmoniously to achieve predetermined objectives. Each component of the module—from orientation and hypothesis formulation to reflection—was designed to ensure students experience the process of scientific thinking in accordance with the stages of inquiry learning.

At the development stage, the module received an average score of 88.3% in the "Very Feasible" category, indicating that the product met feasibility standards in terms of content, appearance, and learning integration. The clarity of material, consistency of module design, and ease of use for teachers and students became key indicators for assessing the quality of this learning media. These three aspects also ensure that the module can support the learning process effectively and help achieve learning objectives optimally (Nabillah et al., 2023).

At the implementation stage, trial results showed that teachers gave an average score of 4.6 (Very Good category), while student responses averaged 4.5 (Very Good). This proves that the inquiry-based module can create an active and meaningful learning atmosphere. According to Joyce and Weil (2011), inquiry learning encourages students to think critically by fostering curiosity and emotional involvement in the learning process. This learning model provides opportunities for students to actively participate in scientific processes, explore phenomena, ask questions, and seek answers through guided investigation.

The evaluation stage showed that the inquiry module is feasible, practical, and effective for application. This is in line with Kirkpatrick's (1998) summative evaluation model, which assesses product success based on learner reactions and learning outcomes (cited in Effendi, 2022). Thus, this module can serve as an innovative alternative in PAI learning at the elementary level.

These findings support the research of Azmar (2021), which states that inquiry-based learning models encourage students to become more aware of their affective domain, enabling them to develop soft skills, including critical thinking skills, more optimally. However, the uniqueness of this study lies in the application of the inquiry model in the context of Aqidah Akhlak material, using a systematic and contextual learning module approach.

5. CONCLUSION

The results of the study show that the inquiry-based learning module developed through the ADDIE stages was declared valid with an average score of 88.3%, practical with a score of 4.45, and capable of improving the quality of students' investigative processes in Islamic Religious Education (PAI) learning. However, this study has limitations, such as the trial being conducted in only one school and involving a limited sample, so the findings cannot yet be widely generalized. Based on these results, the implementation of this module is recommended for PAI teachers to enhance students' active engagement and critical thinking skills through structured inquiry activities. In addition, teachers are advised to adapt the module to the context of their respective schools to ensure that the use of the inquiry model becomes more effective. For future research, it is recommended to conduct trials at different educational levels, compare the effectiveness of this module with other learning models, and evaluate its long-term impact on learning outcomes, religious attitudes, and students' religious literacy skills.

A. Research Limitations

This study has several limitations that need to be considered when interpreting its results. First, the module trial was conducted in only one school with a relatively limited number of students, resulting in low external validity and limited generalizability of the findings. Second, the implementation of the module occurred over a short period, which was insufficient to demonstrate its long-term impact on the development of critical thinking skills, religious attitudes, or students' overall learning outcomes. Third, this study focused only on assessing validity, practicality, and instructional implementation, and therefore did not evaluate learning effectiveness in depth through comparative statistical analysis. Fourth, teacher involvement in the module implementation was still limited, so implementation bias may have occurred. Therefore, the results of this study should be considered as preliminary findings that require further testing in broader contexts.

B. Recommendations for Practice

Based on validation and trial results, this inquiry-based learning module is recommended for use by Islamic Religious Education teachers as a means to improve students' engagement in scientific inquiry, critical reasoning, and deeper understanding of religious concepts. Teachers are advised to adapt the module to the needs and characteristics of students in each school, particularly regarding the level of content depth, contextual examples, and variation of inquiry activities. Moreover, the use of this module will be more optimal if teachers receive brief training on inquiry-model implementation strategies so that learning can proceed in a more structured and effective manner. Schools are also expected to provide support in the form of facilities, additional learning resources, and sufficient time allocation for inquiry-based learning, which requires students' exploratory activities. In this way, the module can provide maximum impact on the quality of PAI learning.

C. Directions for Future Research

To strengthen scientific contributions, future research may consider developing inquiry-based modules at different educational levels, such as junior high school, senior high school, or Islamic schools (*madrasah*), to obtain a more comprehensive picture of the module's effectiveness. Future studies may also examine the module's effectiveness through experimental or quasi-experimental designs so that changes in learning outcomes can be measured more objectively and significantly. In addition, longitudinal analysis is needed to determine the long-term influence of the module on critical thinking skills, religious character, and students' attitudes. The development of modules based on digital platforms or interactive media also has the potential to become a further research direction to align PAI learning with the needs of the digital era. Subsequent studies are also advised to incorporate more in-depth needs analysis of teachers and students so that the developed module becomes more contextual, adaptive, and easily applied in various school conditions.

REFERENCES

Azmar, A., & Nurhilaliati, N. (2021). Pengaruh model pembelajaran inquiry terbimbing berbasis implementasi nilai-nilai Islam terhadap hasil belajar IPA peserta didik pada SDN 219 Pukkiseng Kabupaten Sinjai. *Publikasi Pendidikan: Jurnal Pemikiran, Penelitian dan Pengabdian Masyarakat Bidang Pendidikan*, *11*(1), 20-26. https://doi.org/10.26858/publikan.v11i1.14498

Effendi, M., Zainuddin, Z., & Ahmad, M. S. (2022). Implementasi evaluasi model kirkpatrick terhadap kualitas sistem pembelajaran. *Jurnal Educatio: Jurnal Pendidikan Indonesia*, *8*(1), 1-8. https://doi.org/10.29210/1202221160

Fadhlan, M. R, & Zailani, Z. (2025). Pengembangan modul pembelajaran pendidikan akhlak untuk meningkatkan sikap toleransi siswa di SMAS An-Nizam Islamic Boarding School. *Jurnal Yudistira: Publikasi Riset Ilmu Pendidikan Dan Bahasa*, *3*(4), 450–460. https://doi.org/10.61132/yudistira.v3i4.2427

Hamdani, M., Prayitno, B. A., & Karyanto, P. (2019). Meningkatkan kemampuan berpikir kritis melalui metode eksperimen. In *Proceeding Biology Education Conference: Biology, Science, Enviromental, and Learning* (Vol. 16, No. 1, pp. 139-145).

Harfiani, R., & Fanreza, R. (2019). Implementasi model pembelajaran lesson study praktikum wisata dalam upaya meningkatkan pemahaman konsep dan berpikir kreatif mahasiswa pada mata kuliah media dan sumber belajar di

Prodi Pendidikan Islam Anak Usia Dini Fakultas Agama Islam UMSU. *Intiqad: Jurnal Agama dan Pendidikan Islam, 11*(1), 135–154. https://doi.org/10.30596/intiqad.v11i1.2041

Joyce, B. R., Weil, M., & Calhoun, E. (2011). *Models of teaching* (8th ed.). Pearson.

Khasinah, S., & Elviana, E. (2022). Need analysis dalam pengembangan kurikulum. *Jurnal MUDARRISUNA: Media Kajian Pendidikan Agama Islam*, *12*(4), 837-850. https://doi.org/10.22373/jm.v12i4.17208

Mirrota, D. D. (2024). Tantangan dan solusi pembelajaran agama Islam di sekolah inklusi. *Urwatul Wutsqo: Jurnal Studi Kependidikan dan Keislaman, 13*(1), 89–101. https://doi.org/10.54437/urwatulwutsqo.v13i1.1423

Nabillah, W., & Tanjung, E. F. (2023). Canva-based interactive learning media for Islamic Religious Education subjects. *Edureligia: Jurnal Pendidikan Agama Islam, 7*(2), 202–211. https://doi.org/10.33650/edureligia.v7i2.6883

Nasution, A. A. (2025). Penerapan model inquiry dalam meningkatkan kemampuan siswa pada pembelajaran Pendidikan Agama Islam di era Merdeka Belajar. *Analysis*, *3*(1), 137-143.

Nurmalia, N., Harfiani, R., & Setiawan, H. R. (2024). Differentiated learning process in the independent curriculum for the subject of Islamic Religious Education. *Dinasti International Journal of Education Management and Social Science, 5*(5), 1091–1098. https://doi.org/10.38035/dijemss.v5i5.2676

Nurmalikha. (2010). *Perbedaan prestasi belajar antara metode ceramah dan metode hafalan dalam pembelajaran PAI di SMA HI Pondok Pinang Jakarta Selatan* [Skripsi Sarjana, Universitas Islam Negeri Syarif Hidayatullah Jakarta].

Ramdani, S. N. (2021). *Analisis model pembelajaran inquiry dalam meningkatkan hasil belajar peserta didik di sekolah dasar*. [Skripsi Sarjana, Universitas Pasundan]

Selamat, S., Arifin, S., Haris, A., Qorib, M., & Pasaribu, M. (2023). odel pendidikan karakter santri di Pesantren Modern Muhammadiyah Kwala Madu. *Edukasi Islami: Jurnal Pendidikan Islam*, *12*(4), 3141–3152. https://doi.org/10.30868/ei.v12i04.5268

Selamat, S., Pasaribu, M., Sofyan, S. (2025). Implementasi pembelajaran Pendidikan Agama Islam (PAI) dalam membentuk karakter siswa di SMP Negeri 3 Tanjung Pura Langkat. *Al-Mutharahah: Jurnal Penelitian dan Kajian Sosial Keagamaan*, *22*(1), 26-33. https://doi.org/10.46781/al-mutharahah.v22i01.1506

Trisnawati, T., Fauziya, D. S. (2024). Faktor penyebab kejenuhan belajar siswa SMP kelas VIII pada pembelajaran Bahasa Indonesia. *Aliansi: Jurnal Hukum, Pendidikan dan Sosial Humaniora, 1*(5), 214–226. https://doi.org/10.62383/aliansi.v1i5.407