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Developing Inquiry-Based Learning Modules to Enhance Critical Thinking: A Study on "My Indonesia is Rich" Social Studies Material

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Abstract: This study aims to develop and test the effectiveness of an Inquiry-Based Learning (IBL) module for the topic "My Indonesia is Rich" in enhancing critical thinking skills among fifth-grade students at Madrasah Ibtidaiyah. Employing Research and Development (R&D) with the ADDIE model (Analysis, Design, Development, Implementation, Evaluation), the module underwent rigorous validation by material, media, and language experts, achieving an average score of 4.00 (very good category). Effectiveness was tested via pretest-posttest assessments involving 20 students. The module significantly improved critical thinking, with average scores rising from 52.50 (pretest) to 83.25 (posttest) and an N-Gain of 0.65 (medium–high category). Student feedback yielded an average score of 68.5/80 (very good), confirming the module's usability and appeal. This study pioneers an IBL-based module tailored to Madrasah Ibtidaiyah's social studies curriculum, bridging pedagogical innovation with cultural relevance in Indonesian elementary education. The validated module offers teachers a ready-to-use, contextual tool to foster active, meaningful learning aligned with madrasa students' needs. The research provides an evidence-based model for developing IBL materials that enhance critical thinking while preserving local cultural context, applicable to similar educational settings.

Keywords: Critical Thinking, Inquiry-Based Learning Modules, My Indonesia is Rich, Social Studies Material

A. Introduction

Access to quality education is a fundamental right for every learner in Indonesia. As emphasized by (Cindy Tifani, Fatkhur Rohman, 2025), effective educational guidance provides the necessary framework for developing meaningful knowledge and competencies. Education serves as the vehicle that enlightens and empowers future generations, much like fuel propels an engine. However, as noted by (Dalimunte et al., 2023) this transformative process requires sustained institutional support, adequate resources, and strategic implementation to achieve its full potential.

Education in Indonesia, particularly at the Madrasah Ibtidaiyah (MI) level, plays a crucial role in shaping a knowledgeable, intelligent, and creative generation with critical thinking abilities. In response to contemporary demands, modern education must transcend rote memorization and prioritize the development of students' critical thinking skills. The Inquiry-Based Learning (IBL) approach has proven effective in achieving this objective by emphasizing active learning through investigation, questioning, and exploration. This methodology encourages students to move beyond passive information consumption and instead engage actively in knowledge acquisition, problem formulation, and problem-solving.

Social studies learning at the elementary madrasah level continues to face several challenges, including low student academic performance and limited active participation in the learning process. These issues may stem from the use of teaching approaches that lack variety and fail to foster critical thinking and exploratory skills among students. One potential solution to address these challenges involves implementing an IBL model, which emphasizes active student engagement and investigative learning methods.

Social Studies learning should adopt the IBL approach to enhance students' active participation in the instructional process. This methodology encourages learners to conduct independent investigations and discover solutions to presented problems, thereby developing their ability to autonomously explore and acquire information to achieve learning objectives.

Critical thinking is a purposeful cognitive process used to achieve goals, whether for exploring topics in depth, analyzing complex issues, or solving problems. This process can be effectively implemented through collaborative activities that foster shared understanding among participants. As emphasized by (Yolanza & Mardianto, 2022) it requires the ability to articulate one's thought patterns to others, thereby stimulating their comprehension and encouraging engagement with alternative perspectives. Furthermore, (Gunardi, 2020) highlights that inquiry-based learning models are specifically designed to enable students to investigate, access, and process diverse information and ideas. This approach enhances their conceptual mastery when addressing specific problems or topics.

According to Sanjaya, the primary characteristic of the IBL model is its emphasis on students' active involvement in the process of investigation and discovery. This approach positions learners as the central subjects of the educational process, encouraging them to independently seek solutions to presented problems. Consequently, the teacher's role shifts to that of a facilitator and motivator who supports students' learning processes. The fundamental objective of implementing the IBL model is to develop structured, rational, and analytical thinking skills among students (Setyorini, 2020).

The development of teaching materials in module form serves as an essential learning reference. Instructional models play a vital role in structuring the learning process. The effectiveness of these learning strategies largely depends on teachers' ability to properly implement the models during instructional activities (Ardanti Hermala, Mudmainah Vitasari, 2024). These systematically designed modules function as teaching tools that support the learning process and can be used independently to facilitate student engagement in self-directed learning (Tanjung et al., 2023).

This module is designed as a written learning resource, systematically organized in print format. It contains instructional materials, teaching approaches, learning objectives, guides for independent study activities, and student directions for practicing skills aligned with established competency indicators (Maha et al., 2022). The module follows a learning model framework specifically created to encourage students' active participation in information discovery and critical analysis processes, thereby developing their full potential (Kartika & Rakhmawati, 2022).

The success of a learning model depends on the appropriate selection and implementation of teaching methods. When determining instructional methods, educators must consider several factors: (1) alignment with subject matter, (2) teacher competencies, (3) student characteristics, (4) availability of facilities, and (5) contextual implementation requirements (Kusumawati, 2024). The IBL model actively engages students in the learning process by stimulating intellectual curiosity and strengthening logical thinking abilities. Research demonstrates that IBL enhances academic achievement, fosters positive attitudes, and effectively increases student motivation (Budiyati, 2024). This student-centered approach provides opportunities for active participation in problem-solving and higher-order thinking skill development. The "My Indonesia is Rich" learning material, which highlights Indonesia's natural and cultural wealth, is particularly suitable for IBL implementation at the MI level. This content effectively cultivates national awareness while encouraging critical thinking about sustainable resource management, making it highly relevant for elementary Islamic school curricula.

Despite its high educational potential, the implementation of this material in MI faces significant challenges in fostering critical thinking skills. As noted by (Ramadhani & Aufa, 2024) students' reasoning abilities remain underdeveloped due to their reliance on rote memorization practices. Furthermore, most existing learning modules predominantly employ one-directional lecture methods, which fail to adequately stimulate students' analytical thinking (Evalina & Ihsanudin, 2024). Consequently, developing an IBL module for the "My Indonesia is Rich" topic becomes essential to: (1) cultivate critical thinking skills, (2) enhance problem analysis capabilities, and (3) develop contextually appropriate solutions related to Indonesia's natural and cultural wealth.

As an instructional approach, IBL presents both advantages and limitations. According to Roestiyah, the key benefits of this learning strategy include: (1) developing students' self-concept, (2) enhancing comprehension of fundamental concepts through detailed exploration, and (3) facilitating knowledge retention and application in novel learning situations. Furthermore, IBL encourages learners to think critically and act independently without direct guidance, fostering skills grounded in reality, intellectual honesty, and open-mindedness. This approach also promotes independent hypothesis formulation, intrinsic motivation, and engaging learning environments while supporting individual potential and self-directed learning opportunities.

Despite its advantages, the inquiry learning model presents several limitations. As noted by (Mulyani, 2023), these challenges include: (1) difficulty in monitoring student activities and learning outcomes, (2) implementation barriers due to varying student learning styles, and (3) requiring extended instructional time that often conflicts with standard schedules. Furthermore, when learning success is measured solely by students' content mastery, this model becomes particularly challenging for educators to implement effectively across diverse classroom contexts.

The inquiry learning model faces several implementation challenges, including: (1) difficulties in monitoring student activities and assessing learning outcomes, and (2) constraints arising from students' established learning habits. Additionally, the model's requirement for extended instructional time often conflicts with standard scheduling limitations, creating adaptation challenges for teachers. When learning success is measured primarily by content mastery, this approach becomes particularly difficult for educators to implement effectively across diverse classroom settings (Aini, 2024).

The implementation of IBL in MI remains suboptimal, largely due to insufficient teaching materials aligned with inquiry-based pedagogical principles. Current learning modules lack design elements that facilitate exploration, discovery, and active student engagement essential for IBL. Developing purpose-built IBL modules presents a promising educational alternative that would: (1) foster analytical thinking skills from elementary levels, (2) prioritize active student participation, and (3) create meaningful learning experiences that enhance critical thinking competencies. Such modules could transform learning into a more student-centered process while addressing existing implementation gaps.

While numerous studies have demonstrated the effectiveness of IBL in enhancing critical thinking skills, existing research predominantly focuses on general applications of learning models and strategies. As noted by (Saputro & Rayahub, 2020) and (Mediana et al., 2025), these studies largely overlook the development of contextually relevant IBL modules that align with real-world learning situations and address the specific characteristics of fifth-grade students at MI. Current literature

lacks detailed discussion on designing IBL-based learning modules tailored to this unique educational context.

Previous studies have largely failed to develop IBL modules that incorporate Islamic values relevant to MI contexts, creating a significant gap in religious-aligned teaching materials. This study addresses this limitation by developing an IBL module that: (1) enhances critical thinking skills, (2) aligns with MI students' characteristics and learning environment, and (3) systematically integrates Islamic values into elementary education. Literature confirms that well-designed IBL modules improve learning quality and reflective thinking through investigative activities, guided questioning, and reflective tasks that promote deeper understanding. The module's emphasis on student-led exploration and discussion additionally increases learning motivation. For fifth-grade MI thematic learning, this approach serves dual purposes: cultivating critical thinking while raising awareness about environmental sustainability and Indonesia's natural resources - ultimately creating an active, meaningful learning experience grounded in students' real-world contexts.

B. Methods

This study employs the Research and Development (R&D) method, a well-established approach in educational research (Rasyidah & Rambe, 2022). The research design follows the ADDIE model (Analysis, Design, Development, Implementation, Evaluation), originally developed by Dick and Carey (Prasasti & Anas, 2023). Data collection procedures include: (1) interviews with social studies teachers and students, (2) student questionnaires administered before and after using the developed learning modules (Asminar Siregar, Masganti Sitorus, 2021) and (3) document analysis. The research instruments consist of validation questionnaires, teacher response surveys, student feedback forms, and written assessments (pretest-posttest).

This study employs four distinct data analysis methods: (1) validity analysis, which evaluates all aspects assessed by validators through validation instruments (including module validation sheets, lesson plans, and student response questionnaires); (2) test instrument analysis, examining students' mathematical communication skills; (3) question validity analysis, measuring the validity of assessment items; and (4) module feasibility analysis, assessing teacher and student feedback questionnaires (Aulia et al., 2020). For quantitative data analysis, the study utilizes the Likert Scale to measure attitudes, opinions, and perceptions regarding educational phenomena. This scaling technique enables the operationalization of research variables through dimensional breakdown - where variables are decomposed into dimensions, dimensions into sub-variables, and sub-variables into measurable indicators (Sarah, 2021).

This study engaged 20 fifth-grade students from a MI as participants, equally divided into an experimental group (using an Inquiry-Based Learning module) and a control group (following traditional instruction). Both groups focused on developing critical thinking skills in Social Studies instruction. Additionally, participating teachers provided evaluative feedback on the module's instructional effectiveness and practical implementation. The study employed a mixed-methods analytical approach, combining thematic analysis of qualitative data (from questionnaires, interviews, and documentation) with quantitative statistical processing using SPSS software. The quantitative analysis focused on validity testing and N-Gain calculations, while the qualitative examination identified emerging themes through systematic coding of student responses regarding the IBL module's implementation. Coding procedures specifically targeted patterns related to: (1) module effectiveness, (2) student engagement levels, and (3) learner perceptions of the IBL approach. This dual analytical strategy enabled comprehensive evaluation of critical thinking skill development and assessment of the module's congruence with Madrasah Ibtidaiyah students' learning characteristics.

C. Results and Discussion

This study aims to enhance critical thinking skills among fifth-grade students at Madrasah Ibtidaiyah. Data were collected through pretest and posttest assessments administered to 20 participants. The results demonstrate significant improvement in student learning outcomes, as evidenced by comparative analysis of pre-intervention and post-intervention scores as follows:

Table 1. Average Score of Students' Pretest and Posttest

Size Type	Pretest	Posttest	Gain score	N-gain
Average	52.50	83.25	30.75	0.65

As shown in Table 1, the implementation of the Inquiry-Based Learning (IBL) module resulted in significant improvements in student learning outcomes. The average pretest score of 52.50 increased substantially to 83.25 on the posttest, with an N-Gain value of 0.65 (medium-high category), demonstrating the module's effectiveness in developing students' critical thinking skills. Analysis of N-Gain score distribution revealed that: (1) 45% of students (9/20) achieved high improvement (≥0.70), (2) 55% (11/20) showed moderate improvement (0.30–0.69), and (3) no students fell into the low improvement category. These findings indicate that all participants exhibited enhanced critical thinking abilities after using the IBL module.

Table 2. Validation Results

Aspect Validation	Validator	Average score	Category
Material	Subject Matter Expert	4.00	Very worthy
Media	Media Expert	4.00	Very worthy
Language	Linguist	3.80	Worthy

Three subject-matter experts conducted validation assessments focusing on content, media design, and language aspects. The module received an average score of 4.00 (classified as "very good") for both content and media quality, while the language component scored 3.80 ("good" category). These results indicate that the module is highly suitable in terms of substantive content and visual presentation, with linguistically appropriate execution. However, minor refinements in language use could further enhance the module's overall quality.

Table 3. Average Questionnaire Score Response Student to the Module

Amount respondents	Maximum score per student	Total score	Average	Category
20 students	80	1370	68.5	Very worthy

Student responses to the learning module demonstrated overwhelmingly positive feedback. Analysis of the 20 collected questionnaires yielded a total score of 1,370 out of a possible 1,600, with an average rating of 68.5/80 - classifying the module in the "very good" category according to student evaluations. Participants particularly noted that the module was engaging, easy to comprehend, and effectively facilitated deeper understanding of social studies content. The following table synthesizes key findings from interviews, questionnaires, and document analysis regarding the implementation of the IBL module in Social Studies instruction. It presents comparative perspectives from both students and teachers, highlighting the module's perceived effectiveness in developing critical thinking skills and its overall impact on the learning process.

Table 4. IBL Module Interview Themes

Theme	Description	Data Source
Student Engagement	Students feel more engaged in learning with IBL modules. They actively ask questions and engage in discussions.	Interview with students
Critical Thinking Ability	IBL modules help students develop critical thinking skills, especially in analyzing social issues.	Student response questionnaire, interview
Teacher Response	Teachers feel that this module is very helpful in increasing student participation and the quality of social studies learning.	Interview with Teacher
Difficulty in Implementation	Some students find it difficult to explore independently, especially at the beginning of learning.	Interviews with students, questionnaires

The table presents key findings from student and teacher interviews and questionnaires about the IBL module implementation. Students reported significantly higher engagement levels, particularly through the module's emphasis on question formulation and participatory discussions. Furthermore, participants

demonstrated enhanced critical analysis skills when examining social issues, evidencing IBL's efficacy in fostering critical thinking development. Teacher responses corroborated these findings, highlighting the module's dual benefits in improving Social Studies instructional quality while promoting active classroom participation.

The implementation process faced initial challenges, particularly regarding students' difficulties with independent exploration. These findings suggest the need for preparatory skill-building to enhance learners' capacity for effective inquiry-based engagement. Notwithstanding these transitional obstacles, the IBL module ultimately demonstrated significant effectiveness in boosting both student participation and critical thinking development, yielding measurable improvements in overall learning outcomes.

The research findings demonstrate that the developed IBL module significantly enhances critical thinking skills among fifth-grade students at MI. This improvement is evidenced by the substantial increase in average learning outcomes, rising from 52.50 (pretest) to 83.25 (posttest), with an N-Gain value of 0.65 (medium-to-high category). These results confirm that the IBL approach effectively promotes active student engagement in the learning process, thereby making a substantial contribution to the development of students' critical thinking abilities.

These findings align with (Gunardi, 2020) assertion that the IBL strategy actively engages students in knowledge exploration and independent concept formation. The module incorporates structured activities including question formulation, hypothesis development, and observational tasks - all designed to strengthen critical thinking skills as emphasized by (Yolanza & Mardianto, 2022).

Regarding product feasibility, validation results indicate that the module received "very good" ratings from both content and media experts, with average scores of 4.00 in each category. Language experts awarded a score of 3.80 ("good" category), demonstrating the module's strong suitability in terms of content quality, visual design, and linguistic clarity - though some language aspects could still be refined. As (Apriani, 2018) emphasizes, using developmentally appropriate and communicative language significantly impacts the effectiveness of material delivery.

Student responses to the module were overwhelmingly positive, with questionnaires yielding an average score of 68.5/80. These results indicate that participants found the module engaging, easily comprehensible, and effective for understanding social studies content. These findings align with the research of (Kartika & Rakhmawati, 2022), which demonstrates that inquiry-based learning models significantly enhance student motivation and engagement in the instructional process.

This study demonstrates that the IBL-based module effectively enhances students' critical thinking skills, as evidenced by significant pre-test to post-test improvements. The research contributes novel insights by developing modules that uniquely: (1) target critical thinking development, (2) align with MI students' learning characteristics, and (3) integrate Islamic values. This approach distinguishes itself from prior studies that primarily examined generic IBL applications without addressing MI-specific contexts or religious value integration. However, this study has several limitations that should be acknowledged. The relatively small sample size only 20 students limit the generalizability of the findings to a broader population. Additionally, the short duration of the intervention restricts the ability to assess the long-term effects of using this module. For future research, it is recommended to increase the sample size and extend the intervention period to yield more representative results and provide a more comprehensive understanding of the effectiveness of IBL modules in enhancing students' critical thinking skills.

D. Conclusions

This study demonstrates that the Inquiry-Based Learning (IBL) module on the topic "My Indonesia is Rich" effectively enhances the critical thinking skills of fifth-grade students at Madrasah Ibtidaiyah. The results reveal a significant improvement in students' average scores, rising from 52.50 (pretest) to 83.25 (posttest), with an N-Gain score of 0.65 (moderate to high effectiveness). Furthermore, expert validation in material, media, and language aspects rated the module as "very good" (average score: 4.00 for material/media) and "good" (3.80 for language), confirming its high quality. Student feedback was also highly positive, with an average satisfaction score of 68.5 out of 80, classifying the module as "very good" in terms of engagement, clarity, and active participation. These findings highlight the practical implications of the IBL module as a valuable teaching tool for Social Studies. Its success in fostering critical thinking while creating an interactive and engaging learning environment suggests it is suitable for broader implementation in other elementary schools. The module's design combining structured inquiry with student-centered activities makes it adaptable for diverse educational settings. For future research, it is recommended to: 1) Expand testing to a larger, more diverse student population to strengthen generalizability; 2) Extend the intervention period to assess long-term retention of critical thinking skills; 3) Enhance the module by integrating digital technology (e.g., interactive e-books, gamified quizzes) and project-based activities to promote contextual, real-world learning; and 4) Investigate its application in other subjects or grade levels to measure cross-disciplinary effectiveness. By refining and scaling this IBL module, educators can further advance critical thinking education in Indonesia, aligning with modern pedagogical demands.

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References

Aini, S. N. N. N. (2024). The Effect of Inquiry-Based Learning Model on Scientific Reasoning Ability in Science Subjects in Grade V of SDIT Wasilatul Huda. *Asatidzuna Jurnal Pendidikan Guru Madrasah Ibtidaiyah, 5*(1). https://journal.iaitasik.ac.id/index.php/Asatidzuna/article/view/367

Apriani, R. S. (2018). *Implementation of the Inquiry Learning Model in Improving Social Studies Learning Outcomes of Grade VII Students at Al Muhajirin Islamic Middle School*. Thesis: Universitas Islam Negeri Syarif Hidayatullah Jakarta

Ardanti Hermala, Mudmainah Vitasari, L. T. B. (2024). Development of a Google Form-Based Three Tier Diagnostic Test Instrument to Identify Misconceptions of grade VII Students on the Theme of Heat Around Us Jurnal Ilmiah Pendidikan Citra Bakti. *11*(3), 764–779. https://doi.org/10.38048/jipcb.v11i3.3667

Asminar Siregar, Masganti Sitorus, R. (2021). Developing Mathematics Learning Media Using Canva to Increase Student Learning Motivation. *Relevant: Journal of Mathematics Education, 1*(2), 286–289.

Aulia, N., Nurmawati, N., & Andhany, E. (2020). Development of Problem Based Learning Modules to Improve Students' Mathematical Communication Skills at MAN 3 Langkat. *Axiom : Jurnal Pendidikan dan Matematika*, *9*(2), 133–144. https://doi.org/10.30821/axiom.v9i2.7822

Budiyati, E. R. E. (2024). Improving Critical Thinking Skills of Junior High School Students Using the Inquiry Based Learning Model. *Jurnal Review Pendidikan Dan Pengajaran*, *7*(3), 9196–9200.

Cindy Tifani, Fatkhur Rohman, H. E. (2025). Implementation of Inquiry Learning Strategy to Cultivate Student Learning Creativity in Social Studies Subject in Grade VII of MTs. Babul Ulum. *Khidmat: Jurnal Pendidikan Dan Ilmu Sosial*, *3*(1), 30–37.

Dalimunte, N., Salim, & Samin, M. (2023). The Influence of the PJBL and Inquiry Based Learning Models on Students' Critical and Creative Thinking Skills. *Jurnal Pendidikan Matematika*, *3*(1), 105–110.

Evalina, R., & Ihsanudin. (2024). *The Effect of STEM-Integrated Problem-Based Learning on Mathematical Critical Thinking Skills and Self-Efficacy of Junior High School Students*. *08*(02), 1281–1292.

Gunardi. (2020). Inquiry-Based Learning Can Improve Student Learning Outcomes in Mathematics Lessons. *Social, Humanities, and Education Studies (SHEs): Conference Series*, *3*(3), 2288–2294.

Kartika, Y. K., & Rakhmawati, F. (2022). Improving Students' Mathematical Critical Thinking Skills Using the Inquiry Learning Model. *Jurnal Cendekia : Jurnal*

Pendidikan Matematika, *6*(3), 2515–2525. https://doi.org/10.31004/cendekia.v6i3.1627

Kusumawati, T. I. (2024). Innovation in Social Sciences (IPS) Learning in Elementary Schools/Islamic Elementary Schools. *Iijtimaiyah: Jurnal Ilmu Sosial Dan Budaya*, *8*(1), 31–38. https://doi.org/10.30821/ijtimaiyah.v8i2.20551

Maha, L. N., Halimah, S., & Ananda, R. (2022). Development of Al-Quran Hadith Learning Module. *Research and Development Journal of Education*, *8*(1), 417–423. http://dx.doi.org/10.30998/rdje.v8i1.13850

Mediana, N., Funa, A., & Dio, R. (2025). Effectiveness of Inquiry-based Learning (IbL) on Improving Students' Conceptual Understanding in Science and Mathematics: A Meta-Analysis. *International Journal of Education in Mathematics, Science and Technology*, *13*(2), 532–552. https://doi.org/10.46328/ijemst.4769

Mulyani, N. (2023). Implementation of the Inquiry Based Learning Model in Science Learning About Magnetism to Increase Student Learning Motivation and Learning Outcomes. *Jentre*, *4*(1), 9–26. https://doi.org/10.38075/jen.v4i1.321

Prasasti, R. D., & Anas, N. (2023). Development of Flipbook-Based Digital Media to Improve Students' Critical Thinking Skills. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, *4*(3), 694–705. https://doi.org/10.31538/munaddhomah.v4i3.589

Ramadhani, A., & Aufa. (2024). Game-Based Student Worksheet Development to Improve Critical Thinking in Grade III Elementary School Students. *Didaktika: Jurnal Kependidikan*, *13*(2), 2691–2700.

Rasyidah, N., & Rambe, R. N. (2022). Development of LKPD Based on Guided Inquiry on Human Respiratory System Material. *Jurnal Jeumpa*, *9*(2), 739–747. https://doi.org/10.33059/jj.v9i2.6384

Saputro, O. A., & Rayahub, T. S. (2020). Differences in the Effect of Implementing Project Based Learning (PJBL) and Problem Based Learning (PBL) Models Assisted by Monopoly Media on Students' Critical Thinking Skills. *Jurnal Imiah Pendidikan Dan Pembelajaran*, *4*(1), 185–193. https://doi.org/10.23887/jipp.v4i1.24719

Sarah, rohmad siti. (2021). *Questionnaire Instrument Development* (A. Murtadho (ed.)). K-Media Yogyakarta.

Setyorini, R. (2020). Improving Creativity in Writing Popular Scientific Articles Through the Inquiry-Based Learning (IBL) Model. *Dialektika Jurusan Pgsd*, *10*(1), 419–431.

Tanjung, M. S., Tanjung, I. F., & Rohani, R. (2023). Development of CTL-Based Biology Learning Modules on Ecosystem Material to Improve Student Learning Outcomes. *JUPEIS: Jurnal Pendidikan Dan Ilmu Sosial*, *2*(4), 16–24. https://doi.org/10.57218/jupeis.vol2.iss4.833

Yolanza, R., & Mardianto, M. (2022). Analysis of Critical Thinking Skills of Senior High School Students in Islamic Religious Education Subject. *Belajea: Jurnal Pendidikan Islam*, *7*(1), 45–60. https://doi.org/10.29240/belajea.v7i1.4339