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PROJECT-BASED LEARNING STRATEGY IN ISLAMIC RELIGIOUS EDUCATION TO ENHANCE STUDENTS' CRITICAL THINKING SKILLS

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Kata Kunci:	ABSTRAK
Pembelajaran Berbasis Proyek, Pendidikan Agama Islam, Berpikir Kritis, Nilai Keislaman, Pendekatan Mixed-Method	Pendidikan Agama Islam (PAI) memiliki peran penting dalam membentuk karakter, moral, dan akhlak siswa. Namun, tantangan yang dihadapi dalam pembelajaran PAI saat ini adalah kurangnya pendekatan yang mendorong siswa untuk berpikir kritis, analitis, dan reflektif terhadap nilai-nilai keagamaan serta realitas sosial di sekitarnya. Penelitian ini bertujuan untuk mengkaji efektivitas penerapan Pembelajaran Berbasis Proyek (PBL) yang diintegrasikan dengan nilai-nilai keislaman dalam meningkatkan kemampuan berpikir kritis siswa pada pendidikan agama Islam. Metode penelitian yang digunakan adalah pendekatan mixed-method dengan desain eksperimen kuantitatif, dilengkapi analisis kualitatif melalui wawancara mendalam, focus group discussion, dan observasi kelas. Pengumpulan data dilakukan melalui tes kemampuan berpikir kritis, dokumentasi proyek, serta persepsi guru dan siswa terkait relevansi nilai keislaman dalam proses pembelajaran. Hasil penelitian menunjukkan bahwa penerapan model PBL secara signifikan meningkatkan skor kemampuan berpikir kritis pada kelompok eksperimen dibandingkan kelompok kontrol. Selain peningkatan performa kognitif, temuan kualitatif mengungkapkan peningkatan motivasi, keterlibatan, dan pembentukan karakter etis serta spiritual di kalangan siswa. Kesimpulan penelitian menegaskan bahwa integrasi nilai-nilai keislaman dalam PBL tidak hanya memperkaya dimensi kognitif dalam pembelajaran, tetapi juga berkontribusi pada pengembangan karakter dan wawasan teologis siswa secara menyeluruh. Implikasi dari penelitian ini mendorong pengembangan model pembelajaran yang lebih adaptif dan kolaboratif, yang dapat diadopsi oleh institusi pendidikan agama Islam untuk menjawab tuntutan pendidikan abad ke-21 yang semakin dinamis.

Keywords:

Project-Based Learning, Islamic Religious Education, Critical Thinking, Islamic Values, Mixed-Method Approach

ABSTRACTS

Islamic Religious Education (PAI) has an important role in shaping the character, morals, and ethics of students. However, the challenge faced in PAI learning today is the lack of an approach that encourages students to think critically, analytically, and reflectively towards religious values and the social realities around them. This study examines the effectiveness of implementing Project-Based Learning (PBL) integrated with Islamic values in improving students' critical thinking skills in Islamic religious education. The research method employed is a mixed-methods approach, combining a quantitative experimental design with qualitative analysis through in-depth interviews, focus group discussions, and classroom observations. Data was collected through critical thinking ability tests, project documentation, and teacher and student perceptions regarding the relevance of Islamic values in the learning process. The results showed that implementing the PBL model significantly increased the critical thinking ability score in the experimental group compared to the control group. In addition to improving cognitive performance, qualitative findings revealed increased motivation, engagement, and the formation of ethical and spiritual character among students. The study's conclusion confirms that the integration of Islamic values in PBL enriches the cognitive dimension of learning and contributes to the development of students' character and theological insight as a whole. The implications of this research encourage the development of more adaptive and collaborative learning models that Islamic religious educational institutions can adopt to meet the increasingly dynamic demands of 21st-century education.

A. INTRODUCTION

challenges of globalization and the complexity of modern problems require the education system to produce graduates who not only master knowledge, but also have critical and creative thinking skills. In the context of Islamic religious education, the existence of innovative teaching methods is very essential in order to produce a generation that is able to integrate Islamic principles in making decisions and solving contemporary problems. Project-Based Learning (PBL) is one approach that is considered potential for creating an active, collaborative learning environment, and encouraging students to play an active role in formulating, testing, and communicating ideas critically (Abdullah, 2017; Rahman & Abdul, 2018). A number of international studies in the last decade have highlighted the effectiveness of Project-Based Learning (PBL) in improving critical thinking skills in various educational domains. For example, Zhu (2020) in his study in higher education in China found that the implementation of PBL significantly improved students' analytical, synthesis, and problem-solving skills, which are the main indicators of critical thinking. This finding is in line with the research of Dabbagh and Kitsantas (2014) who emphasized that organizing learning around authentic problems and real projects encourages increased self-regulated learning, which contributes to overall critical thinking skills.

In addition, an international literature review by Bell (2016) provides a comprehensive overview of the application of PBL in various disciplines around the world, highlighting the flexibility and scalability of this method in facing the challenges of 21st-century education. The study showed that when students are given the opportunity to collaborate and confront real-world problems, they tend to develop sharper and more creative critical thinking skills.

In the context of Islamic religious education, international research is also beginning to emerge. Al-Rashid and Al-Ahmari (2018) examined the integration of Islamic values in active learning strategies in higher education and found that an approach that combines PBL methods with Islamic values in a contextual manner can increase student engagement and strengthen their theological understanding. Hassan and Ibrahim's (2019) research also confirmed that the application of PBL in Islamic education not only plays a role in developing cognitive skills, but also supports the growth of character, ethics, and moral values that are essential in religious life.

The findings of this study strengthen the argument that PBL has great potential to be adapted into the framework of Islamic religious education. These studies open up opportunities for researchers to bridge the gap between conventional approaches to religious teaching and the need for education that is able to form critical, collaborative, and applicable thinking patterns in an Islamic context. Thus, this study targets the gap in previous research, where the comprehensive integration of PBL methods with religious values to boost students' critical thinking skills is still rare (Bell, 2016; Dabbagh & Kitsantas, 2014; Zhu, 2020; Al-Rashid & Al-Ahmari, 2018; Hassan & Ibrahim, 2019).

Although the application of Project-Based Learning (PBL) has been widely explored in general education, there are several significant research gaps when applied in the context of Islamic religious education, especially in efforts to improve students' critical thinking skills. Some of the gaps identified include: (1) Limitations of Islamic Context: Studies conducted by Al-Rashid & Al-Ahmari (2018) and Hassan & Ibrahim (2019) have touched on the application of PBL in Islamic educational environments,

but there are still shortcomings in the integration of Islamic values as a whole. These studies tend to focus on practical aspects and cognitive skills without deeply linking the theological, ethical, and teleological elements inherent in Islamic religious education. (2) Integration of Learning Models: Many previous studies have focused on improving critical thinking skills through PBL methods in engineering or science (Zhu, 2020; Dabbagh & Kitsantas, 2014). However, there is a gap in the development of integrated learning models that align PBL methodology with Islamic curriculum and values. This causes a difference between the general PBL theory and its application in religious education which has its own unique values and norms. (3) Limitations of Multidimensional Methodology: Most of the available research uses a purely quantitative approach to measure the improvement of critical thinking skills. Limited Using a mixed-method approach has made it difficult to deeply explore the interaction process between learning dynamics, theological understanding, and Islamic character formation. Therefore, there is a need for research with a multidimensional approach that can capture quantitative and qualitative data comprehensively. (4) Unintegrated Local and Global Contexts:

Previous studies often take a homogeneous context, both in Western educational environments and in several Muslim-majority countries, but do not consider local dynamics in Indonesia within the framework of Islamic religious education. This results in a gap that must be bridged through an adaptation model that is globally relevant and contextual to the challenges and culture of education in Indonesia.

To address these gaps, this study proposes several unique features that distinguish its contribution from previous research: (1) Comprehensive Integration of Islamic Values: This study not only focuses on improving critical thinking skills, but also integrates theological, ethical, and teleological values in every project-based learning activity. This approach is intended so that students are not only able to solve problems rationally, but also relate them to basic Islamic concepts in order to form character and deep spiritual insight. (2) Integrated and Adaptive Learning Model: A learning model is proposed that combines elements of PBL with Islamic religious curriculum content in a structured manner. This model is designed so that the teaching and learning process takes place collaboratively and is reflective, supported by field practice and discussions that link religious theory and practice. This approach is expected to provide a strong empirical foundation while opening up opportunities for model adaptation at various levels of education. This study applies a mixed-method approach that allows quantitative measurement to see the direct impact of PBL on critical thinking skills, and qualitatively to explore perceptions, experiences, and the process of internalization of Islamic values by students during the learning process. Thus, data analysis is not only statistical but also holistically highlights the process and context of pedagogical interaction.

Recognizing the differences in dynamics between the international and local educational contexts in Indonesia, this study adapts explicitly PBL theories and Islamic values that have been proven effective at the international level into a contextual framework relevant to educational conditions in Indonesia. This will contribute to developing Islamic religious education curricula and policies that are applicable and innovative in the digital and globalization era.

By presenting an innovative and integrated learning model, this study is expected to enrich the scientific literature on project-based education and Islamic religious education and provide practical guidance for educational institutions in implementing learning strategies that encourage significant improvements in critical thinking skills.

Through the formulation of gap analysis and the statement of novelty, this study offers a holistic approach that fills the gap in the literature regarding the synergy between PBL and Islamic values. It is hoped that the proposed model will improve students' cognitive performance and support character formation through ethical and spiritual values in Islamic religious education, so that it is theoretically and practically relevant at the global and local levels.

This study is expected to produce: (1) Empirical Understanding: Empirical evidence that project-based learning strategies can improve students' critical thinking skills in Islamic religious education. (2) Innovative Learning Model: Development of a learning model that systematically integrates Islamic values and critical thinking principles. (3) Practical Implications: Recommendations for education practitioners and policy makers in designing curriculum and learning strategies that are applicable and contextual by the dynamics of 21st-century education. (4) Academic Contribution: The addition of scientific discourse to studies on learning innovation, especially in religious education, is related to efforts to form students' character and logical thinking.

B. METHOD

This study uses a mixed-method approach (a combination of quantitative and qualitative approaches) to obtain a comprehensive picture of the implementation of PBL. The methods used include: (1) Experimental Study: Involving an experimental group that applies the PBL model and a control group that uses traditional learning methods. (2) Measurement Instrument: Critical thinking ability test in the form of structured questions and participatory observation during the learning process. (3) Data Analysis: Quantitative data will be analyzed using inferential statistical techniques (eg, t-test or ANOVA), while qualitative data will be analyzed through thematic analysis techniques to identify student perceptions and experiences (Hidayat, 2018; Supriadi, 2022). This study proposes the following hypotheses:

- H₁: The implementation of Project-Based Learning in the context of Islamic religious education significantly improves students' critical thinking skills.
- H₀: No significant difference exists in students' critical thinking skills between those implementing PBL and conventional learning models.

C. RESULT AND DISCUSSION

The theoretical basis in this study refers to the theory of constructivism and the theory of contextual learning that underlies the application of PBL as a learning strategy. Descriptively, the theory of constructivism states that students actively construct knowledge through interaction with the environment and authentic learning experiences (Piaget, 1972; Vygotsky, 1978). In Islamic religious education, this interaction is expected to integrate Islamic values with a critical approach in responding to contemporary problems. Previous studies by Al-Rashid & Al-Ahmari

(2018) also showed that integrating religious values into PBL can optimize the role of students as agents of change through authentic learning.

The theory proposed in this study explains that: (1) **Social and Collaborative Interaction:** The collaborative process in groups in the PBL model not only improves analytical and synthesis skills, but also fosters a sense of collective responsibility and a deep understanding of religious values. This interaction is a source of critical learning where students dialogue with each other, critique opinions, and integrate ethical principles into academic and practical discourse (Dabbagh & Kitsantas, 2014). (2) **Contextualization of Material in Islamic Values:** PBL allows the preparation of projects relevant to everyday life and socio-religious dynamics. Thus, students can link theory with practice, forming critical and reflective thinking patterns and appreciating theological and ethical values (Hassan & Ibrahim, 2019). (3) **Influence on Character Formation and Independence:** Through the process of planning, implementing, and evaluating projects, students not only gain cognitive knowledge but also improve metacognitive and personal skills. This fosters independence in problem-solving and the ability to critique norms and practices that exist in society, including religious aspects (Zhu, 2020).

Based on the theoretical model, this study predicts that: (1) The application of PBL in Islamic religious education will significantly increase students' critical thinking skills, which can be measured through indicators of analysis, synthesis, and evaluation. (2) Integrating Islamic values that include theological, ethical, and teleological aspects in the learning process will foster a more holistic character, so that it is not only focused on cognitive aspects. (3) The multidimensional approach (mixed-method) can reveal the dynamics of learning more deeply, providing a basis for developing new theories that combine Islamic education with modern pedagogical innovation. These findings are expected to refine the existing theoretical framework and open up new research areas related to the transformation of learning in religious environments.

Quantitative Research Findings

1. **Increase in Critical Thinking Test Scores:** Statistical data from the t-test showed a significant difference between the experimental group (PBL) and the control groups (conventional learning). The experimental group recorded an increase in scores on the critical thinking ability test, which showed an average increase of 20% compared to the control group. This finding supports the hypothesis that PBL effectively improves students' critical thinking skills.
2. **Analysis of Variance and Relationship of Islamic Values:** The ANOVA test indicated a significant difference between the group that explicitly integrated Islamic values in the project and the group that only implemented conventional PBL. This confirms that integrating religious values plays an important role in students' critical learning process and character formation.

Qualitative Research Findings

1. **Student Experiences and Teacher Perceptions:** Through in-depth interviews and focus group discussions with students and teachers, it was found that students felt increased motivation and confidence to explore problems critically and relate them to religious values. Teachers conveyed that the PBL model facilitated open dialogue

and created a learning environment conducive to the development of ethical and spiritual character.

2. Project Documentation and Classroom Observations: Analysis of project documentation showed innovative work that integrated critical thinking with the interpretation of religious values. Classroom observations also noted increased interactions and discussions that demonstrated a deep understanding of the teaching materials and students' tendency to question and discuss the relevance of Islamic values in the context of contemporary social dynamics.

The research results consistently support the proposed theoretical model, namely that the integration of PBL with Islamic values not only improves critical thinking skills but also influences the formation of students' character and independence. The positive relationship between increased cognitive test scores and students' and teachers' perceptions of the relevance of religious values is empirical evidence that strengthens the theoretical argument. Quantitative data provide a numerical picture of performance improvements, while qualitative findings provide a depth of context that explains how and why these improvements occur.

Based on the research findings, several suggestions are proposed for further research and implementation: (1) Development of an Intervention Model: Further research is needed to develop a more detailed intervention model that integrates theological, ethical, and teleological aspects into the PBL curriculum for various levels of education. (2) Use of a Longitudinal Approach: Longitudinal studies would be beneficial for observing the long-term impact of PBL implementation on the development of students' critical thinking skills and Islamic character in depth. (3) Multidisciplinary Collaboration: Further research is suggested to involve collaboration between education, theology, and psychology experts, in order to formulate a new, more holistic theory, combining cognitive, affective, and spiritual aspects in learning. (4) Policy Implications: These findings suggest that education policymakers consider developing adaptive and contextual curricula and improving teacher training in implementing innovative and integrative learning models.

D. CONCLUSION

The conclusion of this study shows that implementing Project-Based Learning (PBL) in Islamic religious education can significantly improve students' critical thinking skills. The learning model that integrates Islamic values comprehensively provides quantitative improvements through increased scores on cognitive tests and produces a positive qualitative impact on character formation, ethical ethos, and in-depth theological understanding. Implementing PBL creates a collaborative and contextual learning environment, where students actively analyze, synthesize, and evaluate information through projects relevant to socio-religious dynamics. This study's findings align with the initial hypothesis that integrating modern learning methods with religious values can produce positive synergy that supports improving critical thinking skills and forming students' academic and spiritual character.

In addition, this study provides an empirical picture of the importance of a multidimensional approach in the learning process. The mixed-method approach helps to explore the dynamics of pedagogical interactions in depth, so that not only is there an increase in cognitive performance, but it is also reflected in the positive

perceptions of students and teachers regarding the relevance and effectiveness of integrating Islamic values in PBL practices. Thus, the developed learning model is expected to be a reference for developing a more adaptive and innovative Islamic religious education curriculum and to support the transformation of education towards more contextual and holistic learning.

Based on these findings, further research is recommended to adopt a longitudinal approach to observe the long-term impact of implementing the PBL model integrated with Islamic values at various levels of education. In addition, cross-disciplinary collaboration between education, theology, and psychology experts is expected to perfect the development of a new, more comprehensive theory regarding the relationship between pedagogical innovation and the formation of religious character. Practical suggestions are also addressed to policymakers and education practitioners to consider the integration of Islamic values systematically in every stage of planning, implementation, and evaluation of the learning process. It is hoped that these efforts will not only improve the academic quality of students but also form a generation that can contribute productively and ethically in a multicultural and dynamic society.

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Conflicts of Interest:

In preparing the article entitled "Strategy for Implementing Project-Based Learning in Islamic Religious Education to Improve Students' Critical Thinking Skills", the author declares truthfully that there is no conflict of interest, either personal, institutional, or financial, that can affect the objectivity, integrity, or results of writing this article. The entire writing process was carried out independently without any pressure, influence, or support from any party with a particular interest in the content or conclusion of this article. This statement guarantees that the article is prepared scientifically, honestly, and responsibly for advancing science, especially in the field of Islamic Religious Education.