Improving Critical Thinking and Problem Solving Skills of Grade VIII Students: A Descriptive Study through Photovoice-assisted Problem-Based Learning in Pancasila Education at SMP Negeri 3 Singaraja

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Abstrak

Penelitian ini bertujuan untuk mengkaji efektivitas model Pembelajaran Berbasis Masalah (PBL) berbantuan metode Photovoice dalam meningkatkan kemampuan berpikir kritis dan pemecahan masalah siswa dalam mata pelajaran Pendidikan Pancasila. Penelitian ini dilakukan di SMP Negeri 3 Singaraja dengan subjek penelitian siswa kelas VIII B. Pendekatan deskriptif kualitatif yang dipadukan dengan metode penelitian tindakan kelas digunakan untuk menilai capaian pembelajaran. Integrasi Photovoice ke dalam PBL memungkinkan siswa untuk terlibat aktif dengan permasalahan kehidupan nyata melalui dokumentasi visual dan diskusi kelompok. Temuan penelitian menunjukkan peningkatan yang signifikan dalam kemampuan siswa untuk menganalisis, bernalar, dan mengusulkan solusi atas permasalahan sosial dan kewarganegaraan yang berakar pada nilai-nilai Pancasila. Penggunaan Photovoice merangsang refleksi dan dialog, yang berkontribusi pada pemahaman yang lebih mendalam dan meningkatkan motivasi belajar. Penelitian ini menyoroti pentingnya strategi pembelajaran interaktif dan kontekstual dalam mengembangkan kompetensi abad ke-21 di kalangan siswa sekolah menengah pertama.

Kata kunci: Pembelajaran Berbasis Masalah, Photovoice, Berpikir Kritis, Pemecahan Masalah, Pendidikan Pancasila, Sekolah Menengah Pertama Siswai.

Abstract

This study aims to examine the effectiveness of the Problem-Based Learning (PBL) model assisted by the Photovoice method in improving students' critical thinking and problem-solving abilities in Pancasila education. The research was conducted at SMP Negeri 3 Singaraja with eighth-grade students of class VIII B as the research subjects. A qualitative descriptive approach combined with classroom action research methods was used to assess the learning outcomes. The integration of Photovoice into PBL allowed students to engage actively with real-life issues through visual documentation and group discussion. The findings revealed a significant improvement in students' ability to analyze, reason, and propose solutions to social and civic problems rooted in Pancasila values. The use of Photovoice stimulated reflection and dialogue, which contributed to deeper understanding and enhanced learning motivation. This study highlights the importance of interactive and contextual learning strategies in fostering 21st-century competencies among middle school students.

Keywords: *Problem-Based Learning, Photovoice, Critical Thinking, Problem Solving, Pancasila Education, Middle School Students*

1. INTRODUCTION

In the 21st century, education demands more than just the mastery of subject matter. Students are also expected to demonstrate key competencies such as creativity, communication, and collaboration. These are often referred to as the 3Cs. In addition, learners must develop critical thinking, problem-solving abilities, and digital literacy to face the challenges of a rapidly changing world. These soft skills are essential for preparing students to make

meaningful contributions both in academic contexts and in real-life problem-solving situations.11,69 inch. Layout: header 0,5 inch, footer 0,5 inch. Critical thinking is a high-level cognitive skill that enables students to systematically process, evaluate, and organize information from various sources such as observation, experience, reasoning, and communication. According to Scriven and Paul, critical thinking is defined as a disciplined intellectual process involving conceptualization, application, analysis, synthesis, and evaluation. This process allows individuals to draw accurate and logical conclusions and supports better academic performance and real-world decision-making.

Problem-solving, on the other hand, is the capacity to identify a problem, analyze its causes, find potential solutions, and implement the most appropriate one. Jonassen (2000) described problem-solving as a complex cognitive process involving interpretation, planning, strategic action, and reflection. The integration of both critical thinking and problem-solving is considered a vital component in 21st-century education, often grouped under the 4Cs framework along with communication and collaboration.

Based on preliminary observations at SMP Negeri 3 Singaraja, especially in class VIII B, several challenges have been identified. These include low student participation, a lack of critical thinking abilities, and difficulties in solving real-life problems. These issues stem from traditional teacher-centered instructional approaches, limited exposure to active learning strategies, and students' tendency to rely on memorization rather than conceptual understanding. As a result, many students struggle to apply theoretical knowledge to practical situations.

To address these challenges, this research integrates the Problem-Based Learning (PBL) model with the Photovoice method. PBL encourages students to actively engage with real-world problems as the foundation of learning, thereby fostering independence, analytical thinking, and solution-oriented reasoning. Meanwhile, Photovoice allows students to document social phenomena through photography, promoting reflection, deeper understanding, and critical analysis. The combination of PBL and Photovoice is expected to enhance students' engagement, develop their critical thinking, and improve their ability to solve problems effectively and creatively.

Despite various educational reforms and curriculum improvements, the implementation of character education through Pancasila Education in many Indonesian schools still lacks innovation. Learning tends to be monotonous, with minimal opportunities for students to explore, analyze, and discuss current social issues critically. Students often find it difficult to connect civic and moral values in Pancasila with their real-life experiences. Consequently, the subject becomes passive, less meaningful, and fails to cultivate the intended attitudes and competencies outlined in the national curriculum. This condition calls for an alternative learning approach that is more student-centered, contextual, and reflective.

The integration of the Photovoice method into Problem-Based Learning (PBL) offers a promising solution. Photovoice empowers students to capture images of their social environment that reflect problems, conflicts, or issues related to civic values. These visual elements are then discussed in class, allowing students to critically interpret situations, identify problems, and formulate solutions collaboratively. This method not only enhances students' critical thinking and problem-solving abilities but also fosters a sense of empathy, responsibility, and engagement with their community. Moreover, it aligns well with the goals of Pancasila Education to form morally grounded and socially aware citizens.

Based on preliminary observations at SMP Negeri 3 Singaraja, particularly in class VIII B, several problems were identified. Students were often passive during Pancasila lessons, showed minimal ability to express opinions, and lacked initiative in solving classroom and community issues. These conditions suggest that students' critical thinking and problem-solving skills are underdeveloped. Thus, the problem identification in this research centers on

the limited application of innovative, student-centered methods in Pancasila Education that can support the development of 21st-century competencies.

From the above, the research questions are formulated as follows: (1) How does the implementation of the Problem-Based Learning (PBL) model assisted by the Photovoice method influence students' critical thinking skills in Pancasila Education? and (2) How does the integration of Photovoice in PBL affect students' problem-solving abilities in class VIII B at SMP Negeri 3 Singaraja? These questions aim to guide the research toward understanding the extent and impact of the learning model on key cognitive skills.

The purpose of this study is to analyze and describe the effectiveness of the PBL model assisted by the Photovoice method in improving students' critical thinking and problem-solving skills in the context of Pancasila Education. The expected benefits of this research include: (1) providing a reference for educators to apply innovative learning strategies in civic education; (2) enhancing students' engagement and reflection on real-life issues through visual learning; and (3) contributing academically to the development of character-based education models that integrate values, skills, and active student participation.

2. METHOD

This research uses a qualitative descriptive approach that aims to provide an in-depth description of the process and results of the application of the Problem-Based Learning (PBL) model combined with the Photovoice method in learning Pancasila Education. The focus of this research is on the development of critical thinking and problem solving skills of students in class VIII B SMP Negeri 3 Singaraja. This research adopted the framework of Classroom Action Research (PTK) based on the Kemmis and McTaggart model (1988) which consists of four stages: planning, action, observation, and reflection. The research was conducted in two learning cycles, each involving intervention, observation, and improvement based on reflection. In the first cycle, teachers designed and implemented learning activities by integrating PBL and Photovoice, where students were invited to observe social phenomena related to Pancasila values through photography, which then became the basis for group discussions to analyze problems, propose solutions, and critically evaluate ideas. Observations focused on student engagement, emerging critical thinking patterns, and challenges during the learning process. The second cycle was a refinement of the first cycle by adjusting learning strategies based on the results of reflection, such as presenting more challenging problems, optimizing the use of Photovoice, and deepening group discussions. Data were collected through direct observation, interview, and test..

3. DISCUSSION

3.1. Results and Discussion of Critical Thinking Skills

The implementation of the Problem-Based Learning (PBL) model assisted by the Photovoice method showed a positive impact on students' critical thinking abilities. During the first cycle, students demonstrated the ability to identify issues from visual observations related to Pancasila values. However, their capacity to analyze causes, evaluate perspectives, and draw logical conclusions was still limited. The average score for critical thinking in Cycle I was 70.23, categorized as "adequate". After refining instructional strategies in Cycle II, including more guided inquiry and deeper reflection during group discussions, the average score increased to 82.18, with most students showing improvement in interpreting evidence and articulating well-reasoned arguments.

This improvement is supported by classroom observations, which revealed that students became more engaged and participative in class discussions. Their use of Photovoice helped

them connect theoretical values of Pancasila to real-life scenarios, thus enhancing their ability to think critically about social issues. The learning model successfully encouraged students to question assumptions, compare perspectives, and reflect on the implications of their ideas. These findings align with prior studies that emphasize the role of PBL in fostering higher-order thinking skills in civic and character education contexts.

Furthermore, the reflection process built into the Photovoice method encouraged students to revisit and analyze their own perspectives. It created a safe space for dialogue, which allowed for diverse viewpoints to emerge. This exposure to multiple perspectives is a fundamental component of critical thinking development. Students began asking more open-ended questions, challenging peer responses, and expressing opinions based on evidence from their photo documentation.

In addition, the integration of real-life social issues through Photovoice increased student motivation. Rather than passively receiving information, students were involved in a process of discovery and personal engagement. The relevance of the issues selected such as environmental cleanliness, discipline, and social awareness further deepened students' interest in thinking critically, not only in the classroom but also in their daily lives.

3.2. Results and Discussion of Problem-Solving Skills

In terms of problem-solving skills, Cycle I results indicated that students were still struggling to identify root causes and propose feasible solutions to the issues captured in their Photovoice projects. The average problem-solving score in Cycle I was 66.71, which showed that many students relied heavily on teacher guidance and lacked strategic planning in proposing solutions. After improvements in learning design including clearer problem orientation, peer collaboration sessions, and structured solution mapping the average score in Cycle II increased to 80.57.

Students showed better ability to define problems, analyze contributing factors, and formulate actionable solutions. The Photovoice technique helped them explore the issues more deeply by presenting concrete, visible examples from their environment. Moreover, group collaboration strengthened their reasoning and decision-making process. These results support the theoretical framework that PBL enhances learners' capacity to solve real-world problems by engaging them in meaningful, inquiry based learning experiences.

Moreover, the use of group discussions to analyze photographs taken by students encouraged collaborative problem-solving. Students were not only expected to solve problems individually but also to listen, negotiate, and refine their ideas with their peers. This collaborative process made their solutions more realistic and applicable. It also taught students essential skills such as compromise, consensus-building, and teamwork skills crucial for life in a democratic society.

Through the application of the Photovoice method, students were also able to internalize the problem-solving process in a more personal and reflective way. They developed the ability to empathize with the social problems they documented, which helped them go beyond superficial solutions. Instead of offering idealistic answers, students began proposing actions that were relevant, contextual, and doable in their school or community environment.

3.3 Overall Improvement and Interpretation

Comparing the results from both cycles, there was a significant improvement in students' critical thinking and problem-solving abilities. The increase in mastery level (KKM achievement) from 68% in Cycle I to 88% in Cycle II indicates the effectiveness of the applied model. Students became more autonomous, reflective, and motivated to engage in civic-oriented discussions. The PBL model with Photovoice not only improved cognitive skills but also fostered empathy, teamwork, and civic awareness core goals of Pancasila Education. These findings confirm that combining PBL and Photovoice is an effective strategy to support holistic student development in junior high school contexts.

The significant changes observed between Cycle I and Cycle II demonstrate that innovative learning models can transform passive classrooms into interactive learning spaces. Students who were initially hesitant to express their opinions gradually gained the confidence to speak, question, and explore social realities with greater awareness. These behavioral changes are as important as academic outcomes, as they reflect the development of responsible and active citizens - one of the key purposes of character education embedded in the Pancasila curriculum.

In summary, this study proves that the integration of Problem-Based Learning and Photovoice is not only applicable in a Pancasila education context but is also effective in cultivating essential 21st-century skills. These include not only cognitive abilities such as critical thinking and problem-solving but also affective qualities such as empathy, initiative, and collaborative spirit. The success of this research encourages broader implementation and further study in other educational contexts to refine and validate the model.

4. CONCLUSION

The implementation of the Problem-Based Learning (PBL) model assisted by the Photovoice method in Pancasila Education has proven effective in enhancing the critical thinking and problem-solving skills of eighth-grade students. Through the integration of real-life social issues and student-generated visual documentation, learners were able to engage in meaningful reflection, analysis, and collaborative dialogue. The improvement observed from Cycle I to Cycle II demonstrates that this innovative approach not only fosters cognitive development but also supports the cultivation of civic awareness and active participation. Thus, combining PBL and Photovoice offers a powerful pedagogical strategy to promote both academic and character education in junior high school settings.

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