



Enhancing Learning Outcomes in Christian Religious Education and Character Development Through Problem-Based Learning (PBL) Model With Powerpoint Media On The Topic Of The Church As God's People And An Open Fellowship In Grade XII at SMA Negeri 1 Dolok Silau

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ABSTRACT

This study is a collaborative classroom action research conducted in Class XII-6 at SMA Negeri 1 Dolok Silau with 13 students comprising 8 male students and 5 female students. This research aims to examine whether the problem-based learning model using PowerPoint media can enhance student learning outcomes in studying the topic of the Church as God's People and an Open Fellowship. The research was divided into two cycles, with each cycle consisting of problem identification, planning, action implementation, observation and data collection, data analysis, and reflection and improvement. Data collection was conducted using tests. The results showed an improvement in students' learning ability using PowerPoint media on the topic of the Church for the community, as evidenced by the average score of student learning outcomes at the end of Cycle I of 65.75 or 27%, and at the end of Cycle II of 73.39 or 69.69%. From these research findings, it can be concluded that learning using the problem-based learning model with PowerPoint media can enhance students' ability in the topic of the Church as God's People and an Open Fellowship in Grade XII at SMA Negeri 1 Dolok Silau

Keywords: *Problem-Based Learning, Christian Religious Education, Learning Outcomes*

INTRODUCTION

Education today faces increasingly complex challenges in achieving more effective and sustainable learning outcomes. Traditional learning methods, which are often teacher-centered and passive, frequently fail to foster students' deep conceptual understanding and critical thinking skills (Rusman, 2014). Consequently, there is a growing need for innovative and active learning approaches that encourage students to engage directly in problem-solving and the development of higher-order thinking skills. One such approach is the Problem-Based Learning (PBL) model, which requires students to confront complex real-world issues, formulate questions, seek solutions, and apply relevant knowledge and skills within contextual settings (Arends, 2012). In a PBL environment, students act as independent learners who collaborate in groups, developing critical thinking,

cooperation, and problem-solving abilities. The implementation of the PBL model in the topic *“The Church as the People of God and as a Fellowship Open to the World”* at SMA Negeri 1 Dolok Silau offers an active and contextual learning experience that enables students to apply biblical principles and relevant skills to real-life situations. The use of the PBL model is expected to significantly enhance students’ learning outcomes. By involving students actively in solving authentic problems, they are more likely to develop higher motivation, deeper conceptual comprehension, and stronger critical thinking abilities needed in everyday life. Education plays a vital role in shaping students’ attitudes and behaviors toward their environment, and through the application of PBL in the context of understanding the Church as the People of God, SMA Negeri 1 Dolok Silau can make a meaningful contribution to helping students comprehend the Church as a community of believers and as an open fellowship that engages with the world. Based on this background, the researcher is interested in conducting a study entitled *“Improving Learning Outcomes in Christian Religious Education and Character Formation through the Problem-Based Learning (PBL) Model Using PowerPoint Media on the Topic ‘The Church as the People of God and as an Open Fellowship’ for Grade XI Students at SMA Negeri 1 Dolok Silau.”* This study seeks to explore how the implementation of the Problem-Based Learning model can influence students’ learning outcomes in understanding the concept of the Church as the People of God, as well as to identify the extent of improvement achieved through PBL in the topic of knowing the Church through everyday life. The general objective of this research is to determine the effectiveness of the Problem-Based Learning model in enhancing students’ understanding of *“The Church as the People of God and as an Open Fellowship.”* More specifically, this research aims to examine the impact of applying the PBL model supported by PowerPoint media on students’ learning outcomes and to assess the degree of improvement in their comprehension of the Church through their daily experiences. The results of this study are expected to provide several significant benefits. First, it is anticipated to yield an innovative learning approach that can improve students’ mastery of the topic *“The Church as the People of God”* through contextualized learning in Christian Religious Education at the senior high school level. Second, the findings may serve as a useful reference for developing similar models in other religious education subjects, such as Catholic Religious Education, and can be disseminated for use by future educators to enhance the effectiveness of faith-based teaching practices.

METHODS

This research employs a Classroom Action Research (CAR) design. The study will be conducted at SMA Negeri 1 Dolok Silau during the first semester of the 2024/2025 academic year, specifically in the second and third weeks of August. The research subjects are students in Grade XII at SMA Negeri 1 Dolok Silau. As a classroom-based study, the participants are directly involved in the learning process, serving as the primary subjects for observing the effects of the implemented learning model. The research instrument used in this study is a multiple-choice test consisting of ten items for each cycle. Each item provides four possible answers, and students receive a score of one point for each correct answer and zero points for an incorrect answer. This instrument aims to measure students’ cognitive achievement throughout the learning cycles. The study applies the

Classroom Action Research model developed by Kurt Lewin (Kusumah, Wijaya, & Dwitagama, 2011), which involves four systematic stages: planning, acting, observing, and reflecting. The goal of this research is to improve students' curiosity and engagement in Christian Religious Education, particularly in the topic "*The Church as the People of God and as a Fellowship Open to the World,*" through the use of PowerPoint media and the Problem-Based Learning (PBL) approach. The study consists of two cycles, each comprising the same four phases but refined through continuous reflection and improvement.

In Cycle I, the planning stage includes designing PBL-based instruction, preparing learning materials and instruments such as evaluation tests, and grouping students according to their initial abilities and learning styles—visual, auditory, or kinesthetic. The acting stage involves implementing PBL lessons that encourage students to apply the values of Jesus in their daily lives. During the observation stage, the researcher monitors both group and individual learning activities to assess student engagement and interaction. The reflection stage focuses on evaluating the teaching process, the effectiveness of instructional materials, group and individual performance, and post-test results (Post-Test 1). Cycle II follows with a revised plan based on reflections from Cycle I. The planning phase in this cycle involves designing improved instructional strategies and preparing new learning materials aligned with PBL principles. The acting phase consists of conducting lessons that focus on applying problem-solving strategies in understanding Scripture. Observations are again carried out to monitor student participation and learning behaviors during group and individual tasks. Finally, in the reflection phase, the researcher evaluates the overall implementation, instructional materials, group collaboration, and students' independent learning outcomes as reflected in the post-test results of Cycle II (Post-Test 2). To collect data, the researcher employs a testing technique to obtain information on students' learning outcomes. The primary data collection tool is an objective test in the form of multiple-choice questions, each with four answer options. Students' pre-test and post-test responses serve as the raw data for analysis. The data are analyzed using descriptive statistical analysis, which is applied to explain the direction and improvement of students' learning outcomes on the topic "*The Church as the People of God and as an Open Fellowship.*"

The final test analysis at the end of each cycle is conducted to determine the level of student mastery. Students' scores are calculated using the following formula:

$$\text{Value} = \frac{\text{scores obtained by students}}{\text{maks scores}} \times 100$$

Students who achieve a score below 75 are categorized as having learning difficulties, while those who score 75 or higher are considered to have achieved mastery. To measure overall class mastery, the following formula is used:

$$\% \text{ Value} = \frac{\text{The number of students who received grades} \geq 75}{\text{The number of students}} \times 100\%$$

Classroom mastery is deemed achieved when at least 85% of students obtain a score equal to or higher than 75. This analytical approach provides a clear indication of the effectiveness of the Problem-Based Learning model in improving students' comprehension and engagement in Christian Religious Education.

RESULT AND DISCUSSION

After implementing a classroom action research (CAR) project using the Problem-Based Learning (PBL) model, a significant change was observed, particularly among students. The collected learning outcome data indicated improvements in both academic achievement and students' level of engagement during the learning process. Throughout the process, students appeared enthusiastic in responding to the teacher's questions, and the teacher provided appropriate feedback and guidance. Overall, students demonstrated joy and interest in studying religious education, particularly in the topic of global warming, through the use of practice-based methods. They became more confident in tackling practice questions and were able to complete assigned tasks effectively during lessons. These changes reveal that the implementation of the PBL model can foster an active learning environment, motivate students to participate more dynamically, and enhance their academic performance. Within the context of religious education, practice-based methods have proven effective in building conceptual understanding and improving students' problem-solving skills. Furthermore, through this model, students developed greater courage to express their opinions and improved their communication skills. The findings of this study underscore the importance of employing learning approaches that actively involve students in the educational process, both in finding solutions to given problems and in responding to questions raised during lessons. The use of practice-based methods also helps students sharpen their ability to apply religious concepts in real-life contexts. In implementing this approach, the teacher plays a crucial role in facilitating discussions and providing appropriate guidance to students. In addition, students' growing enthusiasm for learning religion and their increased confidence in facing academic challenges demonstrate positive changes in their attitudes and motivation toward the subject. Through the use of the Problem-Based Learning model and practice-based methods, students experienced meaningful and relevant learning that connects directly to their everyday lives. The results of this study strongly support the application of the Problem-Based Learning model and practice-based approaches in religious education. A student-centered learning paradigm, active interaction between teachers and students, and the use of challenging learning strategies can create a positive learning experience and produce significant impacts on students' learning outcomes.

Following the implementation of the first cycle of research, data from the pre-test of Cycle I revealed that most students had not yet achieved the established mastery standard. This finding indicated the need for more intensive and effective learning strategies to help students reach the expected level of understanding. It was therefore important for the teacher to analyze these data carefully to design appropriate instructional strategies and provide additional support for students still experiencing difficulties. The results of the pre-test in Cycle I, as presented in Table 4.1, showed that most students scored between

30 and 40, with an overall average of 42.42. This indicated a generally low level of achievement at the beginning of the intervention. After the implementation of the PBL-based learning activities, the post-test results of Cycle I (Table 4.2) showed a noticeable improvement. The average score increased to 65.75, indicating progress in students' understanding and engagement. The data comparison between the pre-test and post-test results in Cycle I (Table 4.3) showed an increase in the number of students achieving the mastery level. While no students achieved mastery (≥ 75) during the pre-test, six students reached this threshold in the post-test, corresponding to 18% of the class. The average score also rose from 42.42 to 65.75, representing a significant improvement in student achievement following the PBL intervention. During Cycle II, further refinement and improvement were made to the learning process based on reflections from the previous cycle. The pre-test results of Cycle II (Table 4.4) indicated a slightly higher average score of 48.18, showing modest improvement from the start of Cycle I. After the implementation of the PBL approach in the second cycle, the post-test results (Table 4.5) demonstrated substantial progress, with the average score increasing to 79.39. The percentage of students achieving mastery rose dramatically to 69.69%, confirming the effectiveness of the strategy applied in Cycle II. The comparative data between the pre-test and post-test results in Cycle II (Table 4.6) highlighted a clear upward trend in students' learning outcomes. While no students reached mastery in the pre-test phase, 23 students achieved mastery in the post-test, representing an increase of 69.69%. This demonstrated that the PBL approach significantly enhanced students' learning performance and comprehension of the religious education material. The overall comparison between Cycles I and II (Table 4.7) provided a comprehensive picture of students' progress. In Cycle I, the average score rose from 42.42 in the pre-test to 65.75 in the post-test, with 27.2% of students achieving mastery. In Cycle II, the average score increased further from 48.18 to 79.39, with 69.69% of students achieving mastery. These findings indicate a consistent and substantial improvement in students' understanding, engagement, and achievement.

The descriptive analysis of both cycles shows that the PBL model successfully enhanced students' curiosity, participation, and comprehension in learning Christian Religious Education. The increase in both average scores and mastery percentages confirms that this approach not only improved cognitive outcomes but also fostered active learning behaviors and positive attitudes among students. The graphical representations (Figures 4.1–4.3) further illustrate these improvements across the two cycles. This classroom action research was conducted in Grade XII of SMA Negeri 1 Dolok Silau, involving 13 students as participants. The research followed four main stages: planning, implementation, observation, and reflection. During the planning phase, the researcher developed test instruments to measure students' learning outcomes using the Problem-Based Learning model assisted by PowerPoint media. This stage also included the preparation of lesson modules, student worksheets, and pre-test and post-test materials as evaluation tools. During the implementation phase, the researcher carried out the planned activities as outlined in the teaching module. Before the learning sessions, students completed a pre-test consisting of ten multiple-choice questions, each with five answer options. A score of one was assigned for a correct answer and zero for an incorrect one. After the instructional activities, students took a post-test to measure learning gains.

The PBL model was applied throughout the instruction, beginning with the teacher explaining the topic “The Church as the People of God.” During the lesson, the teacher posed questions that students eagerly answered, followed by group discussions to address given problems. Each group consisted of four students, and the implementation of Cycle I took place in one meeting lasting two 24-minute sessions. At the end of the session, students completed the post-test as an evaluation of their learning progress. The research results demonstrate that the Problem-Based Learning model, supported by practice-based exercises, is highly effective in improving students’ cognitive performance, motivation, and engagement in Christian Religious Education. The findings highlight the potential of this pedagogical approach to create meaningful, student-centered, and interactive learning experiences that lead to significant academic growth.

CONCLUSION

Based on the analysis and discussion of the research findings, it can be concluded that the implementation of the Problem-Based Learning (PBL) model proved effective in improving students’ learning outcomes in Catholic Religious Education and Character Formation. The use of the PBL model supported by PowerPoint media on the topic “The Church as the People of God and an Open Fellowship” in Grade XII of SMA Negeri 1 Dolok Silau successfully enhanced students’ understanding and engagement in the learning process. The results demonstrated a significant increase in students’ mastery of the subject matter, as indicated by the improvement in learning achievement—from 27.2% mastery in Cycle I to 65.75% mastery in Cycle II. This notable progress reflects the positive impact of the PBL approach on students’ comprehension, motivation, and participation during the learning process. Based on the implementation process and the outcomes obtained, several suggestions can be provided for future applications of this model. First, researchers or teachers who intend to employ the Problem-Based Learning model are advised to manage time effectively to avoid losing valuable instructional time while organizing classroom activities. Proper time allocation is essential to ensure that all stages of the PBL process—from problem exploration to reflection—are conducted efficiently. Second, to prevent students from becoming disengaged, teachers should adopt varied and interactive teaching strategies that sustain students’ interest throughout the learning process. The integration of multimedia tools, group discussions, and real-life problem-solving activities can make the lessons more dynamic and meaningful, fostering a deeper and more lasting understanding of the material. Overall, the findings of this study highlight that the Problem-Based Learning model, when combined with creative teaching methods and appropriate technological support, can significantly enhance both the cognitive and affective aspects of students’ learning in religious education.

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