



Problem Based Learning Solutions to Improve Student Learning Outcomes

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Abstract

The implementation of Islamic Religious Education learning in the eleventh grade of State Senior High School One, Empat Koto District, Agam Regency, shows that teachers have not developed an appropriate learning model, and the teaching modules used are not yet appropriate to the learning process in the classroom, resulting in low student learning outcomes. This study aims to analyze the effectiveness of the application of problem-based learning models in improving student learning outcomes in Islamic Religious Education subjects. This study is a classroom action research that uses qualitative and quantitative approaches. Learning planning is carried out by reviewing learning outcomes, compiling learning objectives, preparing media and learning resources, and compiling student worksheets, evaluation questions, and observation sheets. The implementation of learning follows the stages of the problem-based learning model, namely problem recognition, organizing learning activities, guiding the investigation process, presenting results, and evaluating the problem-solving process. Learning evaluation is carried out in two cycles. In the first cycle, the first meeting, the results are in the sufficient category; the first cycle, the second meeting, increases to the good category; and in the second cycle, the first meeting, the learning outcomes are in the very good category. These results indicate that the application of the problem-based learning model is effective in improving student learning outcomes in Islamic Religious Education subjects.

INTRODUCTION

The learning process involves interactions between teachers, students, objectives, materials, tools, and methods that influence each other to achieve the objectives. Students are the main component in learning, so a teacher's understanding of them is crucial to creating an optimal learning environment. (Riza & Barrulwalidin, 2023; Khoiri & Nopitasari, 2024; Rasyad & Wulandari, 2024).

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Learning outcomes are achievements achieved through effort and mastery of knowledge. According to Darmansyah, learning outcomes are an assessment of student abilities expressed in numbers. Bloom groups learning outcomes into three domains: cognitive (reasoning development), affective (attitudes and values), and psychomotor (skills). In the context of Islamic Religious Education, learning aims to provide cognitive and affective knowledge to students at all levels of education (Umar, 2020; Suhono, 2022; Putra, 2024).

The Problem-Based Learning (PBL) model adapts to the educational level and abilities of students. PBL encourages students to think critically, collaborate, share ideas, and relate real-world experiences to problem-solving. This model improves learning outcomes by directly engaging students in finding solutions to problems around them and helping to improve their understanding of the material. (Syamsudin, 2020; Putri et al., 2024). PBL also involves multiple intelligences to address real-world challenges. According to Faturrohman, PBL begins with a problem that encourages students to gather and integrate new knowledge (Rusman, 2016).

Islamic Religious Education (PAI) learning in high schools has limited time compared to other subjects. However, PAI teachers have a significant responsibility to achieve learning objectives. However, several obstacles were found, such as class control and the implementation of appropriate learning models. Observations at SMA Negeri 1 IV Koto, Agam Regency (November 2023–March 2024) showed that PAI learning was less than optimal. Problems with the teaching module include: (1) teachers have not developed an appropriate learning model, and (2) the learning steps in the module are not implemented appropriately. During the learning process, problems were found: (1) not yet oriented towards problem solving, (2) not enough training for students to solve real problems, (3) students are confused by the concepts taught due to teacher dominance, and (4) learning is still teacher-centered, so students are not given the opportunity to express their opinions (Observation, 2023).

The problems experienced by students have an impact on low learning outcomes, as seen by the large number of students who have not achieved the Minimum Competency (KKM) in the final assessment of semester 1. Interviews with Islamic Religious Education teachers at SMA Negeri 1 IV Koto revealed difficulties in determining the right learning model, with the lecture method still dominant. Although several models such as Project Based Learning and CTL have been tried, learning outcomes remain low. Low learning outcomes are also reflected in the small number of students accepted into higher education through the grade pathway (SNBP). To address this, learning improvements are needed by implementing appropriate models to improve student learning outcomes.

METHODS

This study uses qualitative and quantitative approaches (Engkizar et al., 2023; Rahman et al., 2024). Qualitative research is used to observe phenomena that occur during the learning process. Kunandar explains that a qualitative approach is used because the data generated is in the form of sentence information that provides an overview of student expressions related to the level of understanding of the subject, students' views or attitudes towards new learning techniques, student activities following lessons, attention, enthusiasm in learning, self-confidence, learning motivation and the like (Munandar, 2008; Efendi 2022). Meanwhile, a quantitative approach is used to calculate the final results during the learning process. According to Kunandar, the quantitative approach is to analyze student learning outcomes using a percentage approach, using learning outcome tests. In the qualitative approach, researchers observe conditions or phenomena that occur in the field

which produce descriptive data in the form of written or spoken words and observed behavior from students. Meanwhile, in the quantitative approach, researchers process the learning outcome scores of students. This study describes the improvement of student learning outcomes using a model PBL in class XI F.3 SMA Negeri 1 IV Koto. It can be concluded from the opinions above that the qualitative approach is an approach that produces information in the form of sentences that provide an overview of the learning process, while the quantitative approach is research that processes, presents, and produces data in the form of numbers.

RESULT AND DISCUSSION

Implementation of the Problem-Based Learning (PBL) Model in Islamic Religious Education (PAI) Learning

Model implementation *Problem-Based Learning* (PBL) in Islamic Religious Education learning in class XI F.3 SMA Negeri 1 IV Koto is an innovative approach that aims to increase active student participation while supporting the achievement of learning objectives contextually. PBL does not only emphasize mastery of the material alone, but further, encourages students to think critically, creatively, and reflectively through a problem-solving process that is relevant to their lives. In the context of Islamic Religious Education learning, the PBL model is very effective because religious values cannot only be understood cognitively, but must be internalized and manifested in everyday attitudes and behaviors. Learning topics such as "Etiquette in Using Social Media" are very appropriate to be applied with the PBL approach, because this topic directly intersects with the digital reality that students face every day. Students are encouraged to not only understand the concept of etiquette in theory, but also practice it in real life, such as making useful posts, giving polite comments, and not spreading hoaxes or hate speech.

Learning activities become more dynamic because students are directly involved from the beginning, from problem identification and information gathering to presenting solutions in group presentations. This way, they feel responsible for their own learning outcomes. The teacher acts only as a facilitator who guides and monitors, not as a sole source of information. This encourages self-confidence and independent learning among students. PBL also creates a collaborative and communicative classroom environment because students must work together and discuss in groups.

Increasing Teacher and Student Activities in Islamic Religious Education Learning

The results of the study showed a significant increase in teacher and student activity from cycle I to cycle II. Teachers' activities in implementing the PBL model became more structured and responsive to classroom dynamics. Teachers no longer focused solely on delivering material but also created a classroom atmosphere that encouraged students to think independently, collaborate, and develop the courage to express their opinions. This improvement was evident in the teachers' ability to manage time, facilitate group discussions, and provide constructive feedback on student-proposed solutions. In cycle II, teachers also succeeded in motivating students from being passive to become more active through a personal approach and positive reinforcement.

Teachers are also more proactive in creating engaging and challenging learning scenarios and adapting based on student characteristics. For example, in discussion groups, teachers balance the number of students with varying abilities to foster mutually reinforcing collaboration. Teachers also practice open-ended questions that stimulate higher-order thinking, rather than simply asking factual

questions. Furthermore, students demonstrate increased confidence in expressing ideas and accepting criticism. Learning activities become more lively and meaningful because interactions are not solely one-way.

Evaluation of Student Learning Outcomes

Evaluation of learning outcomes is the main indicator of the success of the PBL model implementation. The research results showed that in the first cycle, student learning outcomes were still considered adequate. This was due to students' initial adaptation to the new learning model, which requires more active involvement. However, after improvements were made to various aspects of learning, there was a very significant increase in learning outcomes in the second cycle, where all students achieved the KKTP with an average score of 90.0 and a Very Good qualification. Learning evaluation was conducted formatively and summatively using instruments such as written tests, observation sheets, and student reflective notes.

This increase in grades not only demonstrates an increase in cognitive knowledge but also indicates that students truly understand and are able to internalize the values taught. For example, students are beginning to show changes in their attitudes toward social media use, becoming more thoughtful and polite. This is clear evidence that problem-based learning can have significant moral and social impacts. Furthermore, evaluations are conducted not only at the end but also throughout the process, allowing teachers to make improvements in real time. With this approach, students become more active, monitored, and optimally guided throughout the learning process.

Cycle-Based Learning Improvement and Reflection

One of the strengths of classroom action research is the improvement cycle, which allows teachers to reflect on their learning practices. Reflections on cycle I revealed several weaknesses, such as suboptimal use of learning media, uneven group discussion duration, and unequal student participation. Therefore, in cycle II, several important improvements were made, such as the use of engaging and relevant educational videos, the development of more focused student worksheets (LKPD), and student grouping strategies that take into account heterogeneity of ability. Furthermore, a motivational approach was strengthened, with teachers providing rewards and affirmations to active students.

Reflection was also conducted on time management, as many groups had not yet fully analyzed the problems in the first cycle. In the second cycle, time was more controlled and the allocation for group presentations was extended. The teacher also added icebreaker activities to maintain student enthusiasm. The use of daily reflection by students was also introduced to identify obstacles and difficulties they encountered in learning. This provides important data for the teacher in developing the next steps in the learning process. With a pattern of ongoing reflection, learning becomes more responsive and adaptive to students' needs.

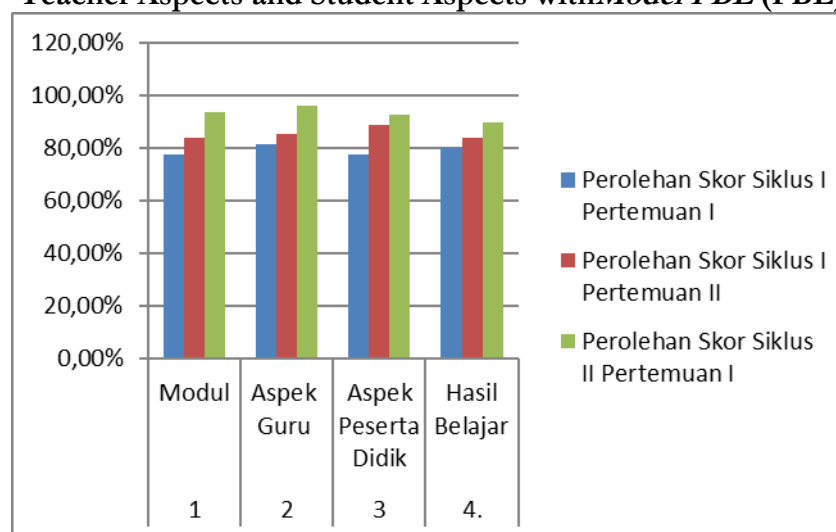
Recapitulation of Learning Improvement between Cycles

The quantitative data obtained showed an increase in scores in every aspect, including learning modules, teacher activities, student participation, and learning outcomes. In the module aspect, the score increased from 77.4% to 93.5%, indicating that improvements in material planning and presentation significantly determine the quality of learning. Teacher activity increased from 81.5% to 96.3%, while student activity reached 92.6%. This indicates that problem-based learning provides significant room for active student involvement in the learning process. The average student learning outcome also increased from 79.8 to 90.0, indicating that the

PBL approach significantly improved student mastery of the material and understanding of Islamic values.

Improvements between cycles demonstrate that the learning process requires time, experimentation, and consistent adjustments. Cycle I serves as an orientation phase, while Cycle II serves as an acceleration phase. Learning is assessed not only by the final product but also by the process itself. Teachers who are able to read evaluation results and reflect on them appropriately will be able to create concrete and impactful improvements. Thus, the PBL model can be used as a strategic approach for sustainable and meaningful learning. Overall, PBL-based learning cycles result in significant improvements in the quality of learning, both academically and in character.

Figure 1. Recapitulation Graph of Percentage of Module Observation Results, Teacher Aspects and Student Aspects with *Model PBL* (PBL)



CONCLUSION

Based on the answers to the problem formulation in this study, it can be concluded that learning planning with the Problem-Based Learning (PBL) model in improving learning outcomes of Islamic Religious Education subjects in class XI F.3 of SMA Negeri 1 IV Koto is carried out through the assessment of Learning Outcomes (CP) and Learning Objective Flow, as well as preparing media, learning resources, LKPD, evaluation questions, and observation sheets. The implementation follows the steps of the PBL model, namely student orientation to problems, coordinating learning activities, guiding individual and group experiences, developing and presenting work results, and evaluating the problem-solving process. Learning evaluation is carried out in two cycles, where in the first cycle meeting I, the module aspect obtained a score of 77.4, teachers 81.5, students 77.8, and learning outcomes 79.8 (sufficient qualification); in the second meeting it increased to 83.8 for the module, 85.2 for teachers, 88.9 for students, and 83.7 for learning outcomes (good qualification); Meanwhile, in cycle II, meeting I, the module aspect value reached 93.5, teachers 96.3, students 92.6, and learning outcomes 90.0 with very good qualifications.

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