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Implementation of the Problem Based Learning (PBL) Learning Model with the Assistance of Interactive Media to Improve Student Learning Outcomes in Indonesian Language Subjects in Grade 2 of SD Inpres Tulo

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ABSTRACT

The background of this study is the low reading comprehension and literacy skills of students as indicated by only 36.36% of students achieving the minimum completion criteria at the pre-action stage. This classroom action research aims to improve the learning outcomes of Indonesian language subjects of grade 2 students of SD Inpres Tulo through the application of the Problem Based Learning (PBL) model assisted by interactive media. Using classroom action research with data collection techniques using learning outcome tests, teacher and student activity observation sheets, and field notes. Quantitative descriptive analysis is used to calculate individual absorption and classical completion, while qualitative analysis is used to assess activity scores to assess the success of the actions taken. The results of the study showed a significant increase in student learning outcomes, with the average value increasing from 61.81 in the pre-action to 80.90 in cycle II and classical completion reaching 81.81%. Student activity also increased from the sufficient category to good. In conclusion, the use of PBL with relevant media can be an alternative strategy to improve literacy skills and can be adapted to other subjects at the elementary level.

1. Introduction

Indonesian is a subject that plays a strategic role in shaping students' literacy and communication skills, especially at the elementary school level. Mastery of Indonesian is not only aimed at improving oral and written language skills, but also as a means of developing students' logical, creative, and critical thinking skills from an early age. In the context of elementary education, the success of learning Indonesian is an important indicator in assessing the quality of the overall learning process. However, various problems are still found in the implementation of Indonesian language learning in the field, especially in lower grades. Based on the results of initial observations conducted at SD Inpres Tulo, it was found that grade

II students still had difficulty in understanding the subject matter, limited reading skills, and low active student involvement in the learning process. This condition is exacerbated by the learning methods used by teachers which tend to be monotonous and do not actively involve students, resulting in low student learning outcomes. This problem shows an urgent need to develop an innovative, adaptive, and student-centered learning approach.

Along with the demands of the curriculum and the development of 21st century education, the PBL model is present as an alternative that can be applied to overcome various learning problems. This model emphasizes real-world problem solving as the core of the learning process, which encourages students to actively seek solutions, discuss, and build knowledge through social interactions and meaningful learning experiences. Ardianti (2021) stated that PBL is a contextual approach that can stimulate students to investigate and solve problems, while developing high-level thinking skills. Various studies have proven the effectiveness of the PBL model in improving student learning outcomes. Herawati et al (2022) showed that the application of the PBL model assisted by interactive multimedia can improve thematic learning outcomes in grade V students. Similar research by Rindengan (2023) also showed that the use of the PBL model can significantly improve the understanding of Indonesian language concepts and project skills in elementary school students. However, most of these studies were conducted on upper-class students and not many have focused on the application of PBL in lower grades, such as grade II of elementary school, which have different cognitive and social characteristics.

In addition to learning models, the use of interactive media is also an important component in supporting the success of the learning process, especially in problem-based learning. Interactive media not only functions as a visual aid, but also as a means of exploration that allows students to learn actively and independently. Interactive media can increase students' interest and involvement in learning, and help them understand abstract concepts through concrete and enjoyable learning experiences (Kirani et al., 2024). Thus, the combination of the PBL model and interactive media is considered relevant to create an active, participatory, and meaningful learning atmosphere. In this study, the interactive media used was adjusted to the characteristics of grade II elementary school students, namely media that is simple, visually appealing, and easy to use individually or in groups. This study is different from previous studies because it focuses on lower grade students, who are in the basic literacy development stage, and examines the effectiveness of implementing PBL with the support of interactive media as an alternative learning strategy.

This study is also in line with the direction of the Merdeka Curriculum policy which emphasizes project-based learning, differentiated learning, and character building through collaborative activities. By implementing the interactive media-assisted PBL model, it is expected that students will not only improve their learning outcomes, but also be able to develop social, communication, and critical thinking skills as part of 21st century competencies. Based on the description, it can be concluded that there is still a research gap in the implementation of the interactive

media-assisted PBL model in Indonesian language subjects in lower elementary school classes. Therefore, this research is important to be carried out as a form of effort to develop adaptive learning strategies to the needs and characteristics of students, especially at SD Inpres Tulo. The purpose of this study is to describe the application of the PBL model with the help of interactive media that can improve student learning outcomes in Indonesian language lessons in grade 2 of SD Inpres Tulo.

2. Methodology

The research method used in this study is Classroom Action Research (CAR) with the application of the PBL learning model assisted by interactive media. This study was conducted in two cycles, each of which was designed to solve learning problems in stages in class II of SD Inpres Tulo with 22 students. The selection of CAR was based on the need to improve the quality of the learning process and outcomes through real actions that can be observed, evaluated, and reflected systematically. The PBL model is used because it emphasizes the active involvement of students in solving contextual problems that are closely related to the teaching material, so that it is expected to be able to improve conceptual understanding, critical thinking skills, and the ability to work together.

Interactive media in the form of letter boards and teaching modules are designed to attract the interest of students who are still at the stage of basic literacy development. With the help of these media, students are expected to be able to more easily understand the concept of reading, stringing words together, and recognizing new vocabulary visually. The existence of media also helps teachers in providing varied learning stimuli so that it is not monotonous and more enjoyable for children. This model is prepared by adjusting the material, lesson plans, and division of student roles so that implementation can run effectively according to the characteristics of the lower elementary school classes.

The instruments used in this study consisted of learning outcome tests, observation sheets of teacher and student activities, and field notes as supporting qualitative data. Learning outcome tests were given at the initial stage to determine the initial conditions of students and at the end of each cycle to see the improvement in learning outcomes achieved after the actions were taken. Observation sheets function to record the implementation of learning activities and the level of student participation in group discussions, asking questions, and collaborative problem-solving activities.

Field notes were used to document various important events outside of formal observations, such as technical constraints, spontaneous student responses, or things that emerged outside the plan. Data collection techniques were carried out continuously through direct observation, written tests, and recording field conditions. Furthermore, the data were analyzed using quantitative descriptive techniques through the calculation of individual absorption capacity and classical learning completeness to measure the level of learning success. Qualitative data

analysis was carried out by assessing teacher and student activity scores to determine the extent of active involvement during the learning process. All stages of this study include the planning stage, implementation of actions, observation, and reflection which are carried out repeatedly in order to achieve continuous learning improvements in accordance with the research objectives that have been formulated from the beginning.

3. Results and Discussion

Results

This classroom action research was conducted with the aim of finding out how much the learning outcomes of Indonesian language improved through the application of the PBL model assisted by interactive media for class II students of SD Inpres Tulo. The pre-action stage shows a general picture of students' initial abilities. Based on the results of the initial test, it was found that out of 22 students, only 8 students or around 36.36% achieved a score above the Minimum Completion Criteria of 75, with a class average score of only 61.81. This shows that most students have difficulty understanding Indonesian language material well if they only use conventional learning methods. From this condition, it can be seen that there are still many students who need to be encouraged to be actively involved in the learning process and require more contextual and meaningful learning strategies in order to be able to facilitate their abilities optimally. This pre-action data is an important basis for formulating improvement steps through the next action cycle. Detailed information about the pre-action results can be seen in Table 1 below.

Table 1. Pre-Action Test Results for Grade II Students of SD Inpres Tulo

No	Acquisition Aspects	Results
1.	Number of students in class II	22
2.	Number of students completed	8
3.	Number of students who did not complete	14
4.	The highest score	90
5.	Lowest Value	30
6.	Average value	61,81
7.	Classical learning completion value	36,36%

Through the data in Table 1, it can be seen that there is a significant gap in learning outcomes between students who have completed and those who have not completed. The highest score reached 90, but the lowest score was only 30, indicating a wide range of student abilities. This situation illustrates that the learning approach used before the research action was not fully able to accommodate differences in individual student abilities. Teachers need to provide a variety of learning methods to minimize this gap. Therefore, the PBL model with interactive media support was chosen as a solution because it is expected to facilitate students to learn actively, work together, and solve problems in real terms. These data show the urgency of learning innovation so that all students, especially those in the low score range, can achieve learning targets.

In the implementation of cycle I, the researcher began to apply the PBL learning model with the help of interactive media, namely letter boards and teaching modules that were adjusted to the level of student ability. The results showed a significant increase compared to the pre-action conditions. Of the 22 students, the number of students who completed increased to 14 students, or around 63.63%, with an average score increasing to 72.72. This increase shows that the PBL learning approach can provide more contextual learning stimuli and attract students' interest to be actively involved in learning. Complete data on the results of the cycle I test are presented in Table 2 below.

Table 2. Results of Cycle I Test of Grade II Students of SD Inpres Tulo

No	Acquisition Aspects	Results
1.	Number of students in class II	22
2.	Number of students completed	14
3.	Number of students who did not complete	8
4.	The highest score	90
5.	Lowest Value	30
6.	Average value	72,72
7.	Classical learning completion value	63,63%

Despite the improvement, the data in Table 2 also shows that there are still 8 students who have not reached the KKM, indicating that the implementation of PBL in cycle I has not been fully optimal. Through observation, several causal factors were identified, including the lack of student motivation in groups, the lack of activity of some students in discussions, and the less than optimal use of interactive media to support understanding of the concept of letters and words. Therefore, reflection on the results of cycle I becomes important evaluation material for improving strategies in cycle II. At this stage, researchers and partner teachers also formulated several improvements, for example adding awards for active students, increasing practice with letter board media, and guiding students with low reading abilities to be more confident in asking questions and discussing.

In addition to the learning outcome test data, the results of student activity observations are also important indicators of the success of the action. In cycle I, the average student activity was recorded in the sufficient category, with an observation score percentage of around 63%. This illustrates that not all students are optimally involved in PBL learning activities. Student activities that still tend to be passive in several groups are a special concern to be improved in the next cycle. The results of teacher observations also showed similar things. Teacher activity in facilitating learning was recorded in the sufficient category, with an average observation score of 61.53% at the first meeting and 59.61% at the second meeting. This indicates that although teachers have prepared good planning, in practice the implementation still needs strengthening, especially in the aspect of motivating students and managing group discussion dynamics. The data from teacher and student observations are used as evaluation material to improve the quality of learning in cycle II.

The implementation of actions in cycle II was carried out by implementing several improvements according to the results of the reflection. The teacher increased the variety of motivational strategies, added rewards for active students, and facilitated group discussions with clear role divisions. The results showed a significant increase. The average value of student learning outcomes increased to 80.90 with classical completeness reaching 81.81%. This increase is close to the minimum completeness target of 85% set by the school. The detailed results of the cycle II test can be seen in Table 3 below.

Table 3. Results of Cycle II Test of Grade II Students of SD Inpres Tulo

No	Acquisition Aspects	Results
1.	Number of students in class II	22
2.	Number of students completed	18
3.	Number of students who did not complete	4
4.	The highest score	90
5.	Lowest Value	70
6.	Average value	80,90
7.	Classical learning completion value	81,81%

In addition to the increase in test scores, student activity was also recorded in the good category with an average activity observation score of 77% in cycle II. Teachers also showed an increase in their skills in managing the class more effectively, marked by an average teacher activity observation reaching 73.07%.

Discussion

The results of the study indicate that the application of the PBL learning model assisted by interactive media has a significant positive effect on improving Indonesian language learning outcomes in grade II students of SD Inpres Tulo. This can be seen from the increase in the average value of learning outcomes from 61.81 in the pre-action to 80.90 in cycle II. The increase in classical completeness from 36.36% to 81.81% proves that the PBL model is able to help students understand the material more deeply. This finding is in line with the results of research stating that the application of problem-based contextual learning methods is effective in improving critical thinking skills and student learning outcomes. In the context of this study, interactive media in the form of letter boards serves to clarify teaching materials so that students can more easily recognize letters and words. Interesting visualizations and opportunities for students to practice directly can increase interest and motivation in learning which ultimately has an impact on better learning outcomes (Ariyani & Kristin., 2021)

The increase in student learning activities in cycle II also strengthens the finding that learning activity has a positive correlation with the achievement of learning outcomes. Students who were initially passive in the pre-action, slowly showed increased participation in group discussions, asked questions, and dared to present their work. This is in accordance with other opinions stating that the PBL model can encourage student activity in finding concepts through collaboration and exploration. The interactive whiteboard media used also supports more contextual

learning, in accordance with the characteristics of lower-class students who generally need visual stimulation and light motor activities to facilitate understanding of abstract concepts (Paratiwi & Ramadhan., 2023)

The results of observations of teacher activities also showed an increase in cycle II. Teachers became more skilled at facilitating discussions, guiding students in solving problems, and directing the optimal use of interactive media. This positive change shows that the success of implementing the PBL model cannot be separated from the teacher's competence in designing and implementing learning. This is in line with the view of Wahyudi et al. (2024) who stated that teachers who are creative in using interactive media can increase the effectiveness of learning. Through reflection carried out at the end of each cycle, teachers can identify weaknesses in learning and immediately formulate corrective steps. This reflective process is the key to the success of PTK implementation.

In terms of relevance, the findings of this study strengthen the results of previous studies by Herawati et al. (2022) and Nikmah & Andriani (2023) which both proved that learning with a PBL approach based on interactive media can improve the learning outcomes of elementary school students, especially in the Indonesian language subject. The application of interactive media such as letter boards or digital multimedia greatly supports literacy learning in elementary schools. Students can learn to recognize letters, put words together, and read sentences in a more enjoyable way. The practical implication of this finding is that teachers can make PBL an alternative learning model that is varied, adaptive, and in accordance with the needs of elementary school students who have diverse early literacy abilities.

4. Conclusion

Based on the results of the research that has been carried out, it can be concluded that the application of the PBL learning model in the Indonesian Language subject in class II of SD Inpres Tulo has been proven to be able to improve student learning outcomes. This learning model provides an opportunity for students to be more actively involved in the learning process through letter recognition activities and the use of letter boards creatively. The application of PBL steps encourages students to think critically, work together, and solve problems related to learning materials so that they have a positive impact on understanding concepts. The success of this research answers the stated objectives, namely to improve student learning outcomes through student-centered learning strategies. The results achieved show that PBL can be used as an alternative effective learning model to be applied to Indonesian Language learning in elementary schools. It is hoped that the results of this study can be a reference for teachers in designing innovative, interactive, and enjoyable learning so that students can achieve the expected competencies optimally. Future research is expected to explore the application of the Problem Based Learning model to materials, class levels, or other learning contexts, so that its benefits are wider and can provide a sustainable contribution to improving the quality of basic education.

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