Application of Problem-Based Learning Models and Puzzle Media to Improve Students' Learning Outcomes

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ABSTRACT

The impact of the Covid-19 pandemic on education in Indonesia is the occurrence of Learning Loss. In this case, teachers must innovate by using strategies and learning models that increase the learning process and results. This study aims to describe using the Problem-Based Learning (PBL) learning model and puzzle media to improve student learning outcomes in learning Pancasila and Citizenship Education in Grade 1 Elementary School. This type of research is class action research (PTK). The subjects in the study were first-grade students of SDN Genengsari 03, as many as 17 students. The data collection techniques used in this study were item instrument test techniques and observations. The data analysis technique used is a comparative descriptive technique with a percentage comparison of cycle 1 and cycle 2 based on the percentage of completion of the minimum, maximum, and average scores. The results showed an increase in learning outcomes. In pre-cycle learning, the results of class action research of students who completed as many as 8 out of 17 children or 47% of 100%, with an average score of 61. In cycle I, as many as 11 students out of 17 children, or 64% of 100%, with an average score of 81. Furthermore, in cycle II, as many as 16 learners out of 17 children, or 94% of 100%, with an average score of 88. In conclusion, the Problem-Based Learning learning model and Puzzle media effectively improve learning outcomes in grade 1 elementary school students. Overall, this research contributes to improving student learning outcomes.
Keywords: Problem-Based Learning Model, Puzzle Media, Learning Outcomes, PPKN

INTRODUCTION

The Covid-19 pandemic in Indonesia has impacted learning loss in education. Learning loss is a condition in which students lose the time and opportunity to learn optimally, decreasing the quality of education (Komalawati et al., 2020). The Ministry of Education, Culture, Research, and Technology argues the same thing that learning loss is the loss of learning opportunities due to the lack of interaction between teachers and students during the learning process, which results in a decrease in students' mastery of competencies (Nurhayati, 2021). The change in teaching-learning patterns from face-to-face in the classroom to Distance Learning (PJJ) has impacted the

less-than-optimal teaching and learning process. Distance Learning is effective if a good internet network supports it. Then, in its implementation, teachers and students understand how to use various applications for distance learning, the availability of smartphones, and adequate internet quota.

Conversely, students with parents who have low education and live in rural areas tend to spend time playing and learning, which is not optimal (Novia & Wasehudin, 2021). In line with Cerelia (2021) stated that the lack of face-to-face learning influences students' learning motivation and learning outcomes. Due to the pandemic, students from the lower middle economic group have less opportunity to learn than other groups of children due to limited facilities and parental guidance. This gap still has an impact on current learning, which results in some students not being able to master the required competencies because they are unable to follow the material. In this case, it is necessary for teachers to innovate in their learning by using strategies, learning models that increase the learning process and results. Improving the quality of learning can be seen through the learning process. The learning process is related to the learning experience experienced by students. The learning experience obtained by students is related to the teaching and learning activities process, which originate from teaching and learning interactions, teacher/student questioning skills, teaching styles, learning methods, and implementation of learning methods. (Kusnandar, 2019).

The use of active learning models involving students and media in current learning practices is rarely applied, learning is still teacher-centered, and learning occurs monotonously through lectures and working on LKS questions. Learning that only relies on lectures alone will make it difficult to make students active in learning (Istiningtyas et al., 2022). This impacts students who are less able to understand the material, especially in Pancasila Education subjects. Low student interest in Pancasila subjects because the characteristics of this content learning tend to memorize, making the material difficult. Monotonous learning of lectures and listening to books puts students in a state of learning loss with less literacy skills, making it difficult for students to understand the material so that learning outcomes are low. From the results of evaluations and initial assessments in Pancasila and Citizenship Education Class I SD Negeri Genengsari 03 gotong-royong material. The evaluation results show that students who have not mastered the subject matter are 52%.

In implementing the Merdeka Curriculum, there are several suitable learning models, one of which is problem-based learning or problem-based learning. According to Dewey (Al-Tabany, 2014), learning using problems is an interaction between stimulus and response, a relationship between two learning directions and the environment. The environment provides input to students in the form of problems, while the brain's nervous system helps interpret problems so that the problems faced can be investigated, assessed, and analyzed until they find a good solution. The problem-based learning model through problem-solving contained in learning is considered more fun and preferred by students because students learn actively by presenting relevant material in actual circumstances, often referred to as student-centered (Aisyanah et al., 2017).

In addition to the learning model, learning media is also needed that contains information from sources that will become learning materials for students. Using game-based learning media will create an active learning atmosphere so that students can be directly involved in the learning

process (Hafidah et al., 2020). One of the learning media that can be used to improve learning outcomes in accordance with the characteristics of elementary school students is the use of puzzles. Puzzle is not a foreign game for children. Usually, children like to arrange and match shapes with their places from various pictures. Puzzle media aims to help teachers convey messages to be received by students precisely, quickly and more easily so that they are actively involved in understanding the material provided (Nisak, 2011). This class action research aims to improve the learning process at SDN Genengsari 03 by using the Problem-Based Learning (PBL) learning model and puzzle media to improve student learning outcomes in Pancasila and Civics Education.

METHODS

The research method uses a type of classroom action research through cyclical steps of two cycles, and each cycle consists of four stages: planning, acting, observing, and reflecting (Arikunto, 2015). The subjects in the study were first-grade students of SDN Genengsari 03 as many as 17 students. The data collection techniques used in this study were item instrument test techniques and observations. The data analysis technique used is a comparative descriptive technique with a percentage comparison of cycle 1 and cycle 2 based on the percentage of completeness of the minimum, maximum, and average scores. The success indicators of this study in cycles I and II obtained an average class score of 75.00 with a total learning completeness of 75%, according to the KKM (Minimum Completeness Criteria) determined in the Pancasila and Citizenship Education subject at Genengsari 03 State Elementary School is 75.

RESULTS AND DISCUSSION

Results

The results of the research obtained from the learning outcomes of Pancasila and Citizenship Education subjects through the application of the Problem-Based Learning (PBL) learning model and puzzle media, based on learning completeness, average, minimum and maximum values of grade 1 students of Genengsari 03 State Elementary School, Polokarto District, Sukoharjo semester II of the 2022/2023 school year, in detail presented in table 1 below:

Table 1. Comparison of Pancasila and Civics Education Learning Outcomes based on Learning Completeness, Average, Minimum, and Maximum Values Pre-Cycle, Cycle 1 and Cycle 2

Value	Description	Pre-Cycle		Cycle 1		Cycle 2	
		F	P (%)	F	P (%)	F	P (%)
≥ 75	Completed	8	47	11	64	16	94
< 75	Not Completed	9	52	6	35	1	5
Total		17	100	17	100	17	100
Average		69,41		81,17		88,00	
Minimum		70		70		70	
Maximum		90		90		100	

Description:

F = Frequency

P = Percentage

Table 1 shows that learning outcomes in terms of learning completeness, minimum value, maximum value and average value from pre-cycle, cycle 1 and cycle 2 always increase. The initial data on the learning outcomes of students from 17 students, 8 students were complete with a percentage of 52% and 9 students were not complete with a percentage of 47%, for the average value of all students had not reached the KKM (Minimum Completion Criteria) with an average of 69.41 which is still in the low category.

After improving cycle I using the Problem-Based Learning model and puzzle media. In learning, groups are formed then use discussion, presentation, question and answer methods so that students are more active in learning. The use of puzzle media makes students active in groups working together to solve problems, this media helps students to recall the material learned with the teacher during the problem orientation process. So that the learning outcomes of students increased compared to the pre-cycle, namely 8 students to 11 students who reached the value ≥KKM with a percentage of 64%, and 6 students were not complete with a percentage of 35%. Then the class average value has reached the KKM (Minimun Completeness Criteria) with the acquisition of 81 increased compared to the previous class average. A comparison of these results can be seen in Figure 1.
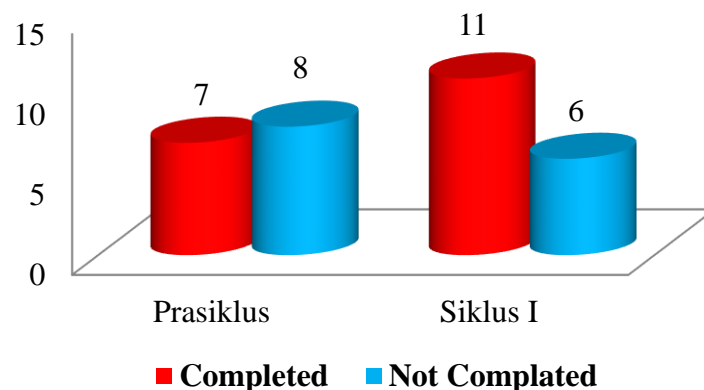

Figure 1. Pre-Action and Cycle I Student Learning Outcomes

In cycle II, improvement activities improved from the previous cycle. Learning in cycle 2 was the same as in cycle 1, using the Problem-Based Learning model and Puzzle media by making media improvements in videos and images and grouping students heterogeneously. Learners actively participate in learning activities, collaborate well in solving problems using puzzles, and more active learners come to the front of the class to answer teacher questions during the problem orientation process. Learners' learning outcomes increased to 16 learners reaching the

≥KKM score with a percentage of 94% and one learner who was not complete with a percentage of 1%. The class average value increased to 88 compared to the average in pre-cycle and cycle one. The increase in student learning outcomes in Pancasila and Citizenship Education subjects based on completeness from pre-cycle, cycle 1, and cycle 2, which in detail is presented in the following table Figure 2.
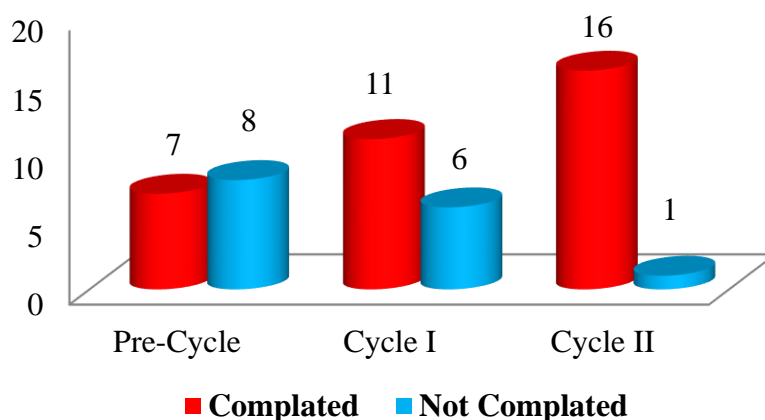

Figure 2. Completeness of Student Learning Outcomes from Pre-Cycle to Cycle I

Discussion

In this study, applying the Problem-Based Learning method and using puzzle media in Pancasila and Civics Education class I subjects can improve student learning achievement. PBL learning methods make students more active, while puzzle media makes them interested and motivated in learning. This can improve students' understanding of the material and their learning outcomes.

The change from distance learning (PJJ) to face-to-face learning (PTM) has a negative impact on student learning achievement and causes a decline in learning (Jauharoti Alfin et al., 2022). They were learning declines when students lose general and specific knowledge and skills or experience academic regression. This occurs due to ineffective teaching (Yatun & Sridiyatmiko, 2022). Therefore, to overcome learning loss, teachers need to design learning that suits the needs of students and can activate students in learning. Teachers have a vital role in determining the success of students. Teachers as educators should be able to design learning process activities with various learning models so that students are more active and can provide motivation for students to learn more diligently (Zaini, 2002). The success of educators in delivering material is highly dependent on the smooth communication interaction between educators and their students (Asnawir, 2002). For students to succeed, educators must have creativity in managing the learning process. Creativity can be done through strategies,

techniques, models, and media in learning (Hartatik, 2023). In learning activities, teachers have the essence of helping students develop themselves and optimize talents, abilities, and learning outcomes (Gainau et al., 2002). The implementation of the current curriculum is designed to support active learning and has a variety of strategies that can be adapted to students' ability levels (Pho et al., 2021).

The application of the Problem-Based Learning method is in accordance with the implementation of the Merdeka Curriculum to anticipate learning loss in learning, especially for students in low grades. The Problem-Based Learning method is a learning method that supports learner involvement through problem-solving activities (Mawarsari & Wardani, 2022). The findings of this study indicate an increase in students' learning achievement through the Problem-Based Learning method, so as to increase students' involvement in learning, students can understand the material more meaningfully and obtain optimal learning outcomes. In line with this opinion, Aini & Relmasira (2018) revealed that this learning method can achieve learning objectives. Then in the research findings Ikhwan (2021) at SD Negeri 3 Pandean, there was an increase in learning achievement with the use of the Problem-Based Learning learning method.

The utilization of puzzle media makes students more interested and motivated in learning and makes it easier for students to understand concepts and provide meaningful understanding to students. This is in line with the opinion of Nisak (2011) that the purpose of using puzzle media includes making it easier for students to understand concepts, providing different and varied experiences that stimulate students' interest in learning, fostering certain attitudes and skills, and creating learning situations that students cannot forget. Then the opinion Khomsoh & Gregorius (2013)that the use of puzzle media can hone thinking power, train patience, and familiarize the ability to share. In this case, it can be seen that during learning, students try to recall the material that has been learned to solve the problems in the form of puzzles given. With this puzzle media, children will be more motivated to learn because applying this exciting and unique learning method will not make students bored quickly. Students can be free to practice this learning method more casually. Puzzles are educational games that can stimulate child development, such as physical development, gross and fine motor skills, courage, cognitive (thinking skills), and psychosocial. The ability obtained by educators after learning activities is called learning outcomes. After the assessment is carried out, it can only be observed that low or high learning achievement describes the acquisition of learning outcomes. Learning improvement will be successful if supported by improvements in the teaching method of

educators in each cycle. The improvement of learning outcomes is influenced by reflection and improvement of the teaching process of educators in the classroom. In addition, success is also inseparable from the ability of educators to carry out learning and the learning methods used.

A study conducted by Aisyanah (2017)showed that using the Problem-Based Learning method and utilizing puzzle media can improve learning achievement in mathematics. At the same time, research Khomsoh & Gregorius (2013) showed that using puzzle media can improve student learning achievement in Social Studies lessons. In this study, using the Problem-Based Learning method with puzzle media also improved students' learning achievement in Pancasila and Citizenship Education lessons in Grade 1 of SD Negeri Genengsari 03. Therefore, it can be concluded that using the Problem-Based Learning method with puzzle media can improve students' learning achievement.

CONCLUSION

In overcoming suboptimal learning outcomes after learning loss, teachers must innovate by using strategies, learning models, and media that increase the learning process and results. The use of Problem-Based Learning and Puzzle Media can improve student learning outcomes. From the pre-cycle learning results, 7 students achieved scores above the KKM with an average class score of 69.41. After the improvement of cycle I, students' learning outcomes increased to 11 students who achieved scores above the KKM with an average class score of 81.17. Furthermore, in the improvement activities of cycle II, students' learning outcomes increased to 16 students achieving scores above the KKM with an average class score of 88. Based on these results, the Problem-Based Learning learning model and Puzzle media effectively improve learning outcomes in grade 1 elementary school students. Overall, this research contributes to improving student learning outcomes.

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