

Improving learning outcomes in economic activities materials through PBL models supported by interactive multimedia in sixth grade SDN Junrejo 2

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Abstract: This research aimed to : (1) describe the implementation of the Problem-Based Learning (PBL) model in improving the learning outcomes of Grade VI students (2) the improvement of students' learning outcomes with the application of Problem-Based Learning (PBL) supported by interactive multimedia can enhance the learning outcomes of Grade VI students. The data collection technique used descriptive quantitative by comparing student learning outcomes after and before the class action. With data collection techniques using tests, observations, and interviews. The results of the research before the class action treatment were 8 students in the first cycle of mastery the learning outcomes of students above the KKM increased by 14 children. Whereas in cycle II the completeness of student learning outcomes increased by a total of 18 out of a total of 20 students. This can be presented before the class action classically obtained 40% then in cycle II the percentage increased to 60%. In cycle II, the percentage of completeness of student learning outcomes increased by 85%.

Keywords: Learning Outcomes, PBL, Interactive Multimedia

PRELIMINARY

Law No. 20 of 2003 concerning the national education system stated that education is a conscious and planned effort, as well as a learning process, aimed at enabling learners to actively develop their potential to have spiritual, religious, self-control, personality, intelligence, noble character, and skills required for themselves, society, nation, and country. The statement can be described as follows: Education has the ability to develop learners to enhance themselves, fostering good spiritual values, self-control, intelligent personalities, and possessing skills while maintaining noble character. Hamalik (2012: 33) stated that "one of the tasks that must be carried out by teachers in schools is to provide services to students that align with the school's goals." The success of achieving education is supported by factors from a teacher. Teachers

have a role in educating and are responsible for the success of improving learning outcomes for students in basic education.

Education in elementary school is the education provided at the beginning of a student's journey in acquiring knowledge to provide knowledge for their future and instill skills in the students (Indri, 2020). The process of imparting knowledge can enhance meaningful understanding and improve the quality of education.

Improving the quality of education is one of the efforts to enhance education as a whole. The endeavor to enhance the quality of education is an integrated part of improving the quality of individuals, encompassing their abilities, personality, and responsibility as citizens of the nation. Educational science and technology continue to develop along with the development of curriculum and learning tools. This explanation is in accordance with Government Regulation Number 74 of 2008 which stated, "Educators at least have the competence to use communication and information technology functionally". In learning it is necessary to use a varied learning model. The implementation of the independent curriculum currently uses a Problem-Based Learning approach.

Based on the observations conducted at SDN Junrejo 2, Batu City, it was found that the teaching method used by the teacher is mainly lecturing. As a result, students feel bored during the learning process. The media employed by the teacher is limited to visual aids such as pictures or visual media. In the media is not explained. On the topic of economic activities, the teacher did not provide any stimulating questions, which resulted in the students being less active during the learning process. The evaluation results show that there are still some students who have low learning outcomes. Some of the reasons for this include the lack of implementation of varied teaching models during the learning process. By applying a varied learning model, it is hoped that it will help students solve problems with their own experiences. In addition to observations, interviews were also conducted with teachers who were conducted in class VI at SDN Junrejo 2 Batu City in November 2022. The results obtained were that in the Natural Sciences subject which focused on economic activity material, there were still some students who obtained 40% learning outcomes under the KKM. Not only student learning outcomes, but there are still some students who are less active in learning activities, and less focused on learning. Because, at that time had not implemented a learning model that focused students on learning. Not only student learning outcomes,

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Based on the problems faced by VI-grade students at SDN Junrejo 2, Batu City, they need an effective solution to handle them. The objective of this solution is expected to assist students in enhancing their learning outcomes in the subject of economic activities that focus on exporting commodities to various ASEAN countries. One of the alternative solutions to address the aforementioned issue is to employ the Problem-Based Learning (PBL) teaching model with interactive multimedia support. Interactive multimedia plays a crucial role in the learning process as a tool to convey the messages imparted by educators to learners, thereby achieving the learning objectives. This approach will be implemented for the subject matter of Social Studies (IPS).

The research carried out has the objective of increasing student learning outcomes, completing the KKM that has been agreed upon, increasing student learning activity, providing experience to students through interactive media, and helping students solve problems through Problem-Based Learning commonly known as PBL.

Problem-Based Learning (PBL) is an instructional model characterized by the presence of real-world problems as the context for participants to learn critical thinking and problem-solving skills, as well as to acquire knowledge (Fauziah, 2015). Thus, it can be stated that the PBL model, characterized by real-world problems related to daily life, can encourage students to engage in critical thinking, problem-solving skills, and knowledge acquisition. Implementing Problem-Based Learning following educational steps is essential to achieve the desired educational objectives.

A learning model used in education consists of various distinct steps. Specifically, the steps of the Problem-Based Learning (PBL) model, adapted from Mohamad Nur (2006:62) in Rusmono (2012:81), are as follows: (1) Orienting the problem to students (2) organizing students by forming groups to solve problems (3) Students conducting investigations or solving problems (4) At this stage students present the results of the discussion (5) Analyzing and evaluating the problem-solving process means that the teacher helps students reflect on the investigation and the

processes they used. The Problem-Based Learning Model has advantages and disadvantages in learning activities.

Shoimin (2014: 132) argued that the advantages of the problem-based learning model are (1) students are encouraged to have the skills to solve problems in real situations. (2) students have the skills to build their knowledge through learning activities. (3) education focuses on problems so that modules that are not related do not need to be studied by students. (4) Scientific activities are facilitated through group work among students. (5) Students develop the ability to engage in scientific communication during discussions and when presenting their work. Based on the opinions provided, it can be concluded that the Problem-Based Learning (PBL) model has several advantages that can motivate and encourage students to solve problems

and build their knowledge. This model can be utilized to facilitate the development of students' socialization skills through group activities and problem-solving discussions.

Social Studies (IPS) education is expected to provide advantages to students by developing their potential and fostering sensitivity to social activities (Anshori 2014: 6 in Tsabit 2020). Based on this explanation, it can be concluded that to understand the material, students are introduced to a problem which can then be solved according to their knowledge. To solve problems, intermediary tools such as interactive multimedia can be used.

Ariani and Haryanto (2010:11) defined multimedia as a collection of various media elements such as text, images, graphics, sounds, animations, videos, and interactions that are combined into a single component to be delivered to the public. Multimedia is a medium that comprises several elements, including text, graphics, images, animations, audio, and video. The information presented is interactive in an application that can be conveyed to the public. Interactive multimedia is used as a tool to convey messages. In using interactive multimedia, it is necessary to pay attention to the benefits.

The benefits of learning media can be used as a tool for student interaction with the environment, clarifying the delivery of the material provided (Zahwa and Syafi'I: 2020), It can be explained that multimedia has several benefits in learning. One of the advantages of multimedia in education is its ability to clarify small details and introduce communication technology devices to students. Furthermore, it enhances knowledge

about science and technology (IPTEK) for both teachers and students. In addition to these benefits, interactive multimedia possesses specific characteristics in its usage.

In this class action research aimed to improve student learning outcomes in class VI. Knowing the completeness in delivering learning material. Providing student learning experiences related to economic activity material in class VI. Introducing interactive media and increasing student activity in learning.

As a medium for conveying messages in interactive multimedia learning processes, it possesses certain characteristics. According to Darmawan (2014:53), multimedia is perceived as an effort to utilize computers for creating and using texts, graphics, audio, and moving images by combining links and tools that enable users to navigate, interact, create, and communicate, both in offline and online contexts. The characteristics of interactive multimedia are: (1) it contains representative material in visual, audio, and audio-visual form. (2) developing the principle of self-evaluation in measuring the process of learning outcomes. (3) can be used classically and individually. (4) can be used both offline and online. Based on the above opinion, it can be concluded that interactive multimedia has the characteristics of visual, audio, and audiovisual-based media. In addition, it can be used as a tool to measure student learning outcomes and abilities. These media can be used in offline and online forms to support and assist teachers in improving student learning outcomes.

Based on the statement by Suprijono in Thobroni (2016:20), "learning outcomes are patterns of behavior, values, understandings, attitudes, appreciations, and skills." It can be explained that learning outcomes encompass various forms of actions aimed at acquiring knowledge, improving attitudes, and achieving skill proficiency.

METHOD

This research falls under the method of Classroom Action Research (CAR). The study emphasizes the implementation of actions for students, as it aims to address learning issues in the classroom. The research method used is quantitative descriptive. Retrieval of data through observation, interviews, and tests. This refers to the understanding of PTK itself. According to Igak Wardhani (2007:4), Classroom Action Research is research conducted by teachers in their classes through self-reflection, to improve their performance as educators and ultimately enhance students' learning outcomes.

Meanwhile, according to Trianto (2011: 18) in this Classroom Action Research the teacher as the researcher, is fully responsible for the research. Another purpose of this classroom action research is to solve problems, improve conditions, develop and improve the quality of learning. On the other hand Classroom Action Research in Arikunto's view (2010: 3) also stated that classroom action research is an examination of learning activities in the form of an action, which is deliberately raised and occurs in a class together. The process of solving the problem is carried out in cycles (Akbar, 2009: 26). Cyclical means cycled or rotating. This research was planned in 2 cycles.

Each cycle goes through four stages adopted from the Kemmis & Mc Taggart model, as follows (1) planning; (2) acting ; (3) observing; (4) reflecting (in Susilo, 2009:14) The research steps for each learning action cycle are explained through the following chart or scheme:

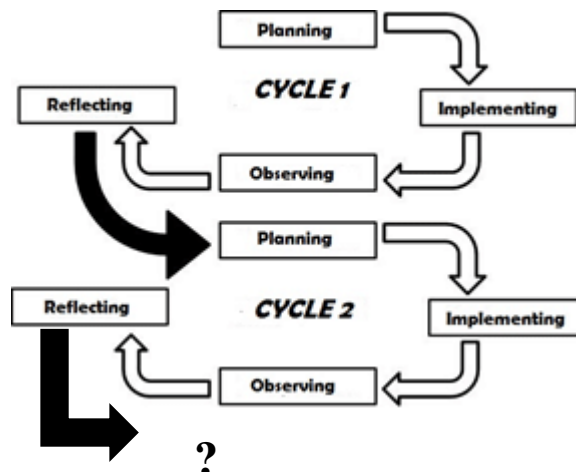


Figure 1: Classroom Action Research Cycle (Kemmis and Mc. Taggart)

a. Time and Place of Research

The research was conducted during the first semester of the academic year 2022/2023 in the month of November 2022. The research took place over a duration of 4 weeks at SDN Junrejo 2 in Batu City.

b. Research subject

The subjects of the Classroom Action Research were students from class VI at SDN Junrejo 2 in Batu City. The class consisted of 20 students, comprising 10 females and 10 males. This particular class VI was identified as being less active in learning activities.

c. Action Plan Stage

1) Planning Stage

At this stage, it is carried out to observe learning activities. Knowing facts related to problems and what things are needed during learning, deficiencies in learning activities. The use of models during learning. Selection of the right media.

2) Implementation Stage

The learning implementation stage is carried out by using and applying class action. Application of class action through 3 cycles. This research focused on improving student learning outcomes.

3) Observation Stage

At this observation stage, the activities carried out observe learning using the observation sheet guidelines that have been compiled, as well as being immortalized through photos or documentation as evidence of observing student learning activities.

4) Reflection Stage

At the reflection stage, discussions are carried out with educators/class teachers. This clarification was carried out regarding the learning activities that had been carried out.

d. Data collection technique

In this study, researchers used data collection techniques in the form of observation sheets and test sheets which were distributed to students. The explanation is clearer as follows:

e. Research Instruments

1) Observation

Observations are made during the implementation of offline learning. This activity is carried out by class teachers and colleagues. The objective of this observation is to assess both the teacher's and students' activities to determine if all planned activities are implemented as intended or not. The observation sheet takes the form of a table where scores are filled in by the class teacher and peer educators as observers.

2) Test

This test is given to students at the end of learning. This test aims to determine the level of success of students in participating in learning whether learning is successful and can increase student learning activities and outcomes after implementing the Problem-Based Learning model with interactive media.

3) Interview

The interview activities were carried out to collect data based on the facts from the teacher. The purpose of the interview activity is to obtain learning process activities and the quality of learning on economic activity material. These activities are used to arrange the next cycle. As a tool for reflection on learning activities.

f. Data analysis technique

At this stage, the technique used is in the form of descriptive quantitative data collection. In collecting quantitative data obtained based on student learning outcomes. While the analysis of descriptive data was obtained based on the results of interviews with teachers. In the analysis using a qualitative percentage. In the following table.

| Score Interval | Interpretation |
|------------------------------------------------|----------------|
| $X > (Mi+1,8 \times sbi)$ | Excellent |
| $Mi+0,6 \times sbi < X \leq Mi+1,8 \times sbi$ | Good |
| $Mi-0,6 \times sbi < X \leq Mi+0,6 \times sbi$ | Average |
| $Mi-1,8 \times sbi < X \leq Mi-0,6 \times sbi$ | Fair |
| $X \leq (Mi-1,8 \times sbi)$ | Poor |

Sources: adopted from Widoyoko (2013,p.238)

Descriptive quantitative data analysis is used to provide an overview regarding the increase in student learning outcomes in cycle I and cycle II. Individual student learning outcomes to achieve KKM on economic activity material and to obtain classical student learning outcomes data. The formula used to calculate the completeness of student learning outcomes is as follows:

$$TB = \frac{\sum S}{N} \times 100\%$$

Description:

TB : Mastery of classical learning

\sum : The number of students who scored greater than or equal to 75

N : The number of students who took the test

DISCUSSION

In this study, it can be stated that learning using the Problem-Based Learning model supported by interactive multimedia learning media has a positive impact on improving student learning outcomes

Table 1. Increase in Class VI Student Learning Outcomes

| Category | Cycle 1 | | Cycle 2 | | Cycle 3 | |
|----------------------|------------------------|--------------|------------------------|--------------|------------------------|--------------|
| | The number of students | Percentage % | The number of students | Percentage % | The number of students | Percentage % |
| Complete | 8 | 40% | 14 | 70% | 18 | 90% |
| Not Completed | 12 | 60% | 6 | 30% | 2 | 95 % |

Based on the table, indicated that 8 students experienced an improvement in their learning outcomes regarding the topic of economic activities before the implementation of the classroom action research. In cycle I, the number of students who achieved scores above the Minimum Passing Grade (KKM) increased to 12 students. Whereas in cycle III the completeness of student learning outcomes increased by a total of 18 out of a total of 20 students. This can be presented before the class action classically obtained 40% then in cycle I the percentage increased to 60%. In cycle III, the percentage of completeness of student learning outcomes increased drastically, is 85%. The percentage of completeness of student learning outcomes can be described using the graph as follows.

The results obtained in this research activity are appropriate with several previous studies conducted by (Susanti: 2020) stating that the Problem-Based Learning (PBL) model is effective in improving student learning outcomes in class VI. The problem-based learning model stimulates students to solve problems by thinking critically. In line with this opinion (Amalia Akhmad, et al: 2023) stated that the problem-based learning model is considered highly appropriate in implementing learning activities to help students solve problems and provide opportunities for students to learn. The application of a problem-based learning model with media support assists teachers in conveying messages, and helping students build knowledge based on experience (Mirnawati: 2017).

In addition, the Classroom Action Research faced challenges in implementing Problem-Based Learning with the support of interactive multimedia for time management during the learning activities. When learning by using interactive multimedia there was a problem that the learning media could not produce sound. This can be overcome by the teacher guiding students in doing the assignments given. In addition, the teacher also checks the media used so that there are no problems. Use loudspeakers to be heard throughout the classroom.

CONCLUSION

Based on the results of research conducted at SDN Junrejo 2 Batu City, it can be concluded that the classroom actions carried out have increased student learning outcomes. Improving student learning outcomes is carried out using the Problem-Based Learning model supported by interactive multimedia. Before the intervention or teaching conducted by the teacher, the learning outcomes of the students did not reach the Minimum Passing Grade (KKM), with an average score of 65.00. After implementing the Classroom Action Research in cycle I, where the students were taught using the Problem-Based Learning model and supported by PowerPoint-based instructional media on economic activities, the learning outcomes showed improvement but were still below the KKM, with an average score of 70.50.

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