

Increasing Activeness and Learning Outcomes with the *Problem-Based Learning* Model for Class II Elementary School

Dwi Setyany Mukti¹, Desy Rufaidah², Erwiyati Nur Dewana³, Agus Triyono⁴

^{1,2}*Sarjanawiyata Tamansiswa University, Yogyakarta*

^{3,4}*Grojogan Elementary School, Yogyakarta*

*Corresponding Author e-mail: dwi.setyany23@gmail.com

1. Abstract

Inactivity and poor student learning results in Indonesian language learning activities serve as the background for this study. This occurs as a result of the teacher's continued preference for the lecture technique and his or her underuse of educational technology. The aim of this study is to improve student engagement and learning outcomes in the classroom learning process. For as many as two cycles, this study employs the Problem-based Learning paradigm along with the classroom action research methodology. Each cycle is completed in two meetings and includes the four processes of planning, doing, observing, and reflecting. There were 26 primary school pupils in class II who were the research subjects. Utilized data collection methods include observation, testing, and documenting. The findings indicated an increase in the number of students who were active in the pre-cycle by up to 6 students or 23%, although none of the kids had met the highly active standard. Cycle I saw an increase to 76.9% or up to 12 students who were very active and active, while cycle II saw an increase to 100% or up to 26 students who were active and very active. Learning outcomes of students who attained KKM were 46.2% or as many as 12 students in the pre-cycle, 69.2% or as many as 18 students in cycle I, and then increased once more to 92.3% or as many as 24 students in cycle II. The usage of problem-based learning learning models may therefore be inferred to promote activity and student learning results on the theme of togetherness.

Keywords: *problem-based learning paradigms, active learning, learning outcomes.*

2. Introduction

According to Government Regulation of the Republic of Indonesia Number 19 of 2005 concerning National Education Standards article 26 paragraph 1, education has a fundamental level that lays the groundwork for intelligence, knowledge, personality, noble character, and skills that enable students to live independently and participate in higher education. Quality humans can be perceived in terms of education, which is reflected in the objectives of education that we are all familiar with.

Learning that emphasizes combining diverse subjects into one learning theme is known as thematic learning. The 2013 curriculum was created using educational theory based on standards and competency-based curriculum theory, claims Sundayana (2014: 24). Through inquiry, discovery, and application in pertinent and meaningful contexts, students learn a variety of concepts and abilities through thematic learning. Students can identify the connections between different knowledge and skill strands in a practical setting thanks to thematic learning. Students benefit from learning that knowledge is related and useful to daily life rather than being isolated and unconnected. In addition, pupils learn more actively now than they did when they were following the prior curriculum. According to Majid (2014: 49), in order to successfully implement integrated theme learning, teachers and students must work together to develop the desired educational objectives.

One of the disciplines covered by theme learning is Indonesian. According to Firda (2021), integrated theme learning activities are student-centered and only teacher-led, whereas activities call for active learning on the part of the students. According to Ayu

(2021), thematic learning stresses using unique themes to teach a variety of subjects. Indonesian in grade II naturally consists of more than just pure Indonesian content; rather, it is frequently combined with Math and SBdP in theme learning. One of the subjects taught in schools is Indonesian, which helps students become better writers, readers, and communicators. Learning is still not perfect since it is still centered on the teacher and pupils merely accept what the teacher says without actively participating in the learning process. In order to help instructors with the teaching and learning process, the 2013 Curriculum or integrated theme was designed.

Based on the findings of observations made with a total of 26 students on April 11, 2023. 14 girls and 12 boys who made up the class noted that the pupils' engagement in and learning outcomes from their participation in the educational process were still weak. Low student learning outcomes in Indonesian are still a result of the students' confusion during the learning process of thematic Indonesian content as they read lengthy texts without visuals and unfamiliar language. Some students are also still slow writers and readers. This is evident when students still find it challenging to respond to or complete the teacher's assignments. In teaching and learning activities, teachers continue to use traditional learning models. Teachers continue to employ less diverse methods of teaching and have not implemented learning models that can boost student engagement in the learning process. The teacher only uses printed books and chalkboard materials to present the content during class.

The level of student engagement in the learning process was low, and some appeared to be quietly playing in the back, bothering their peers, and entering and

exiting the classroom without listening to what the teacher was saying. Based on these insights, teachers should be able to experiment with a variety of teaching strategies and models to encourage students to participate in learning that directly affects them while also fostering critical thinking and active learning. Indicators of liveliness, according to Sudjana (2005: 61), include participating in learning activities, solving problems, asking for clarification from classmates or teachers when necessary, participating in group discussions as directed by the teacher, evaluating one's own abilities through the outcomes, developing problem-solving skills, and applying what has been learned to solve problems. Learning results for students will rise as class participation does.

Teachers might employ the problem-based learning (PBL) methodology to solve this issue. Improving student learning outcomes depends in large part on the choice of learning models. According to Marda (2018), the Problem Based Learning (PBL) learning approach aids students in independently or collaboratively resolving challenges from the real world. The problem-based learning model is a method of instruction that makes use of real-world issues to help students develop their critical thinking and problem-solving abilities as well as knowledge of the topics and material being covered (Kurniawan & Wuryandani in Sumoarta, 2021).

By presenting information in the form of PowerPoint (PPT) presentations and tangible media, researchers attempt to use the Problem Learning (PBL) learning model. With the help of this model, students learn how to actively participate in problem-solving while also developing their problem-solving skills. Furthermore, according to Hamdani (2011), effective learning materials will motivate students to give and receive feedback and to

engage in proper behavior. According to the above description, a suitable learning model is required to improve the students' disciplinary character values. Due to this, researchers applied the Problem Based Learning learning model to increase student activity and learning outcomes for class II students in an action research study titled "Increasing Student Activity and Learning Outcomes in Indonesian Language Thematic Learning with the Problem Based Learning Model Class II A Elementary School".

3. Methods

3.1. Participants and context

The Collaborative Classroom Action Research (PTKK) method is a qualitative approach used in this study. The Kemmis and McTaggart model (Muhidin & Kudus, 2022) is used in this study, and it consists of four stages: planning (planning), action (activity), observation (observing and evaluating), reflection (reflect), and return planning. A total of 26 primary school pupils in grade II served as the study's subjects. Two cycles of this cooperative classroom action research were completed. Planning, action, observation, and reflection are the stages that each cycle is put into practice.

3.2. Material

Research instruments are equipment or facilities used to facilitate data collection. Techniques are tested and non-tested through data collection. Students are given a test that consists of multiple-choice questions to gauge their skills after using the Problem Based Learning methodology. In this study, the non-test technique takes the form of watching students engage in learning activities to determine whether they are adhering to the anticipated conditions and processes. By documenting both current and past

events, observations can be validated. visuals used to represent documents, such as photos, live images, sketches, and others (Sugiyono, 2015: 329). Documents can take the form of words, images, or colossal works created by an individual.

3.3. Data Collection and Analysis

The process of gathering information or data for use in research involves gathering it from a variety of sources. Processing and interpreting data to organize different pieces of information according to their functions so that they have a distinct meaning and meaning that is consistent with the goals of the research is the process of analysing data (Wina Sanjaya, 2013: 106). Observation and testing are the two data gathering methods employed in this in-class action research project. In this study, observation techniques were utilized to track student activity during the problem-based learning model's application to teaching and learning. Students are given multiple-choice questions during the test to gauge their level of proficiency. The data collection instruments used were test questions and observation sheets of student activities.

The research hypothesis that can be advanced in this study is that the Problem Based Learning learning paradigm will boost student engagement and learning results in thematic learning with Indonesian material. The implementation of learning by dividing class II A students into small groups in which there are active students to discuss in their groups and carry out activities in the LKPD provided by the teacher is thought to be able to increase activity and learning outcomes.

3.4. Ethical Considerations

Humans are used as study subjects in all types of studies. The ideas and expectations that guide researchers' conduct and decisions when gathering, evaluating, and

disseminating research findings are known as ethical concerns or research ethics. These moral requirements serve to ensure that research is carried out honestly, to protect the rights and welfare of study participants, and to guarantee the trustworthiness and validity of research findings. Based on these findings, this study outlines the fundamental ethical principles of research, such as respecting and not endangering research participants like teachers and students, which can improve engagement and learning outcomes as well as the value of research in education, particularly in the context of thematic instruction in Indonesian language content.

3.5. Limitations to the Study

The time, effort, and financial expenses involved are the research's constraints. For students in grade II of a primary school employing the Problem-Based Learning paradigm, the researcher presents a problem definition that focuses on improving student engagement and learning results.

4. Results and Discussion

Cycle I and Cycle II of collaborative classroom action research (PTKK) are pre-action, respectively. Table 1 below shows the findings of a study on improving engagement and learning outcomes in class II elementary school children studying Indonesian material from the pre-cycle, cycle I, and cycle II through the use of the Problem Based Learning learning model.

Table 1 compares student activity assessments for Class II Indonesian language instruction in elementary schools throughout the pre-cycle, cycle I, and cycle II.

Score Range	Criteria	Pre Cycle		Cycle I		Cycle II	
		The	Percentage	The	Percentage	The	Percentage

		number of students	(%)	number of students	(%)	number of students	(%)
31-40	Very active	-	-	12	46,1	21	80.8
21-30	Active	6	23	8	30,8	5	19,2
11-20	Moderately Active	8	30,8	2	7,7	-	-
0-10	Less Active	12	46,2	4	15,4	-	-
Total		26	100	26	100	26	100

Table 1 shows that there has been an increase in student character comparison in pre-cycle, cycle I, and cycle II. There were no students with a very active category in the pre-cycle, six students with an active category and a 23% percentage, eight students with a moderately active category and a 30.8% percentage, and twelve students with a less active category and a 46.2% percentage. The activity increased after it was put into practice using the Problem Based Learning learning approach. In cycle I, there were 12 highly active students (with a percentage of 46.1%), 8 active students (with a percentage of 30.8%), 2 moderately active students (with a percentage of 7.7%), and students with no activity (with a percentage of 0%). There are 4 students, or a ratio of 15.4%, in the category of less active pupils. In cycle II, the number of students in the extremely active category increased to 21, representing an 80.8% percentage; there were 5 students in the active category, representing a 19.2% percentage; and there were no students in the quite active or less active categories, representing 0%. This study supports Suci's (2019) findings that the PBL learning approach can increase the volume of theme learning. There were still a lot of students with less active qualifications present at the first meeting, but this number started to drop at the second meeting and eventually

disappeared by the fourth and fifth meetings. Nevertheless, there are now more students with active schedules and strong credentials. Lilis (2022), who claims that the Problem Based Learning learning approach can improve student engagement and learning outcomes in English classrooms, supports this. Table 2 below compares the learning outcomes of class II elementary school children in thematic learning with Indonesian material in pre-cycle, cycle I, and cycle II:

Table 2: Student Learning Outcomes in Pre-Cycle, Cycle I, and Cycle II of Indonesian Language Instruction in Class II of Elementary School

Information	KKM	Pre Cycle		Cycle I		Cycle II	
		The number of students	Percentage (%)	The number of students	Percentage (%)	The number of students	Percentage (%)
complete	≥75	12	46,2	18	69,2	24	92.3
Not Completed	≤75	14	53,8	8	30,8	2	7,7
Total		26	100	26	100	26	100

Table 2 shows a comparison of the learning results for pre-cycle, cycle I, and cycle II. In primary schools, the KKM for Indonesians is 75. There are a total of 26 pupils, 12 in the pre-cycle complete group with a percentage of 46.2%, and 14 in the uncompleted category with a percentage of 53.8%. In cycle I, there were 18 students who had finished, representing a rate of 69.2%, and up to 8 students who hadn't finished, representing a percentage of 30.8%. In cycle II, there were 24 students who had finished, representing a completion rate of 92.3%, and 2 students who had not, representing a completion rate of 7.7%. This study supports Andika's (2018) findings that

the problem-based learning (PBL) instructional paradigm can improve fourth-grade students' learning results.

The objective of the classroom action research is to boost student engagement and academic performance in second-grade pupils at an elementary school. According to the problem-based learning approach, students must be able to comprehend the issues being confronted, seek out knowledge, make a plan for solving the issues, and solve them effectively. The role of the instructor in the learning process is that of a facilitator, whose job it is to lead and direct students' learning. so that each student can learn in a meaningful way and develop critical thinking skills to solve challenges as they arise.

The findings revealed an increase in the number of students who were active in the pre-cycle. Of the 6 kids in this category, 23% were active, but none of them had met the very active standard. There were 8 students in the active group in the first cycle with a percentage of 30.8%, and there were 12 students in the extremely active category with a percentage of 46.1%. The number of students in the active category increased to 5 in cycle II, with a percentage of 19.2%, and there were 21 students in the very active category, with a percentage of 80.8%. In cycle I, there were 18 students in the complete category, with a percentage of 69.2%, and increased again in cycle II, reaching 24 students in the complete category, with a percentage of 92.3%. These learning outcomes were for students who achieved KKM in the pre-cycle.

Following the deployment of cycles I and II, the problem-based learning paradigm led to an increase in the activity and theme learning outcomes with Indonesian material. The learning process increases engagement and improves student learning outcomes by getting students used to problem-based learning, getting them actively involved in using

learning resources, and facilitating discussion activities where they can get information and share ideas to solve problems in their own unique way. This is in keeping with Delsi's (2021) assertion that Problem Based Learning (PBL) is a relevant learning paradigm that use real-world challenges to encourage students to apply their knowledge, seek out the information they need, and refine their critical thinking abilities.

5. Conclusion

According to the findings of collaborative classroom action research conducted over two cycles, using the Problem-Based Learning model can improve student engagement and learning outcomes for Indonesian language learners in Yogyakarta's grade II elementary schools for the 2022–2023 school year. The acquisition of scores of class II primary school kids' enhanced learning activities shows this. The findings indicated an increase in the number of students who were active in the pre-cycle by up to 6 students or 23%, although none of the kids had met the highly active standard. Cycle I saw an increase to 76.9%, or as many as 12, extremely active and active students. Cycle II saw an increase to 100%, or as many as 26, very active and active students. Learning outcomes of students who attained KKM were 46.2% or as many as 12 students in the pre-cycle, 69.2% or as many as 18 students in cycle I, and then increased once more to 92.3% or as many as 24 students in cycle II.

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7. References

Arikunto, S. (2021). *Classroom Action Research*: Revised edition. Script Earth.

Ayu, et al. (2021). Implementation of the PBL (Problem-Based Learning) Learning Model for Thematic Learning Outcomes (Indonesian Language Lesson Content). 4(2). 231.

Cahyono, Sumoarta. (2021). Application of the Problem-Based Learning Model to Improve Thematic Learning Outcomes (Indonesian Language Lesson Content) for Grade III Students. *Scientific Journal of Teacher Professional Education*, 4(2), 211.

- Delsi & Elfia. (2021). Analysis of the Steps of the Problem-Based Learning Model in Integrated Thematic Learning in Elementary Schools According to the Views of Experts. *Journal of Basic Education Studies*. 4(1). 3874.
- Dinar, Andika, et al (2018). Improving Student Activity and Learning Outcomes Through *Problem-Based Learning* (PBL) Learning Models in Grade 4 Elementary School Students. 3(1). 291.
- Hamdani. (2011). Teaching and Learning Strategy. Bandung: CV Pustaka Setia .
- Indriyani, Lilis. (2022). Increase student activity and learning outcomes with the *Problem Based Learning learning model* in English lessons. 1(1), 9-17.
- Majid, Abdul. 2014. *Integrated Thematic Learning*. Bandung: Rosdakarya Youth.
- Novellia, et al. (2018) Application of *the Problem Based Learning* (PBL) Learning Model to Improve Creative Thinking Ability and Student Learning Outcomes in Thematic Learning. 1(2). 151.
- The Republic of Indonesia. 2005. Government Regulation Number 19 of 2005, article 26 (1) Concerning National Education Standards. Jakarta.
- Sanjaya, Vienna. (2012). Classroom action research. Jakarta: Kencana Prenada Media Group.

Setyawati, Suci, et al (2019). Application of *the Problem-Based Learning* (PBL) Learning Model to Increase the Activeness and Learning Outcomes of Grade 2 Elementary School Students. *Scientific Journal of Educational Development*. 6(2). 96.

Sudjana, N. (2005). *Statistical Methods* 6th Edition. Bandung: Tarsito.

Sugiyono. 2011. *Quantitative, Qualitative, and R&D Research Methodology*. Bandung: Bandung alfabeta.

Sundayana, Wachyu. 2014. *Theme-Based Learning Teacher's Guide in Developing Integrated Learning*. Jakarta: Erlangga Publisher .