Efforts to Increase Activeness and Thematic Learning Outcomes through Models *Problem Based Learning* in Class III Elementary School Students

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1.   Abstract

This research was carried out with the aim of increasing the activity and learning outcomes of students in Thematic Learning by using models *Problem Based Learning* (PBL) in class III Elementary School. This research is a type of Collaborative Classroom Action Research (PTKK). The subjects were grade III elementary school students, totaling 27 students. PTK design uses the Kemmis and Taggart models which include planning, action, observation, and reflection. Data collection techniques using observation, tests, and documentation. Data analysis used quantitative and qualitative descriptive statistics. The results showed an increase in the percentage of student activity. This can be seen from the results of student observations of the pre-action activities and each cycle, namely in the pre-action of 46.66%, in the first cycle of 50.62%, while in the second cycle of 83.12%. This was accompanied by an increase in the percentage of completeness of students' thematic learning outcomes from pre-action of 48.14%, increasing in cycle I to 77.77%, while in cycle II it increased to 81.48%. It can be concluded that the use of the model *Problem Based Learning* (PBL) can increase student activity and learning outcomes in thematic learning.

Keywords: *Activeness, Learning Outcomes, Thematic, Problem Based Learning*

2.   Introduction

In the current era of globalization, it demands quality human resources (Kusumastuti, 2022: 1). Efforts to produce quality human resources must be supported by a good and quality learning process. Learning is a process of interaction between the

components of the learning system (Daryanto, 2016: 30). In the learning process, the main components are teachers and students. The teacher as an actor who regulates the course of the learning process from opening the lesson to closing the lesson. Students as subjects and centers who receive the material provided by the teacher. Conducive learning activities can be seen from the reciprocal relationships carried out between teachers and students.

Education is a field that has an important role in human life (Febriyanti, Siti, et al., 2020: 1283). Education is a conscious effort to create an atmosphere of active learning and develop the potential of students in the effort to form the nation's next generation towards progress for all Indonesian people. To create quality education, guidelines for the implementation of learning activities are needed. Regulation of the Minister of Education and Culture Number 22 of 2016 concerning Process Standards for Elementary and Secondary Education, namely that the learning process in educational units is carried out in an interactive, inspiring, fun, challenging manner, motivating students to actively participate, and providing sufficient space for initiative, creativity and independence in accordance with the talents, interests and physical and psychological development of students. For this reason, each educational unit carries out lesson plans, implements the learning process, and evaluates the learning process to increase the efficiency and effectiveness of achieving graduate competencies.

In the lower classes in elementary schools, various learning contents are integrated into a lesson called thematic learning. According to Rusman (2015: 358) integrated thematic learning is one approach to integrated learning*(integrated instruction)* which is a learning system that allows students both individually and in groups, to actively explore and define scientific concepts and principles in a holistic, meaningful, and authentic way. Through thematic learning students can build

interrelationships between one experience and another or knowledge with other knowledge so that learning becomes interesting (Kadir and Asrohah 2014: 22).

The implementation of thematic learning in elementary schools has been in accordance with its objectives and scope, but there are still problems as stated by Sepyantaro (2015: 130) that the demands of a new educational paradigm are that the learning process emphasizes the full, active and independent involvement of students or is student center, but in reality thematic learning in elementary schools so far has not fostered student interest and motivation. Teachers tend to still apply the old educational paradigm which is *teacher center*. Thematic learning problems also occur in elementary schools, according to pre-research data through observation, interviews and document data in the form of class III elementary school learning outcomes, several problems were found in learning. The lack of activity and low student learning outcomes is caused by several factors including limited learning resources that are still focused only on student books, lack of student enthusiasm in thematic learning, and lack of student cooperation in the learning process.

From these problems, the step that can be taken by the teacher is to use an innovative learning model, one of which is the Model *Problem Based Learning* (PBL). According to Putra (2013: 78) Model *Problem Based Learning* is a student-centered learning model (*student centered*). Active involvement of students in the learning process can be seen from students finding problems, formulating problems, gathering facts they want to know, making and answering questions as an alternative to solving problems. Therefore, the PBL model can be a solution to increase the activity and thematic learning outcomes of third grade elementary school students. This is also supported by several studies including research conducted by Intan Kusumastuti (Kusumastuti, 2022) concluded that the use of the Model *Problem Based Learning* can increase student activity

in thematic learning. The difference between this study and Intan Kusumastuti's research is that in this study it discusses activeness and thematic learning outcomes, while Intan Kusumastuti's research focuses on thematic learning activeness with Thematic content. Then the research was conducted by Muhammad Riefki et al. (M Riefki, 2021) in the Pinisi Journal: Journal Of Professional Teachers entitled efforts to increase the learning activity of fourth grade students through the application of the Problem Basen Learning (PBL) Learning Model. The difference between this research and Muhamad Riefki's research is that this study discusses Class IV and Class III.

According to Nurhadi (in Atmojo, 2013) explains that the problem based learning model is a learning model that involves and trains students in solving problems related to contextual life to learn how to think critically and to acquire essential knowledge and concepts. Meanwhile according to (in Bungel, 2014) explains the PBL model is a learning model that has characteristics that distinguish it from other learning models, the problem based learning model is student centered or student centered, meaning that students are actively involved during the learning process. Nopia, R., (2016) says problem based learning is a learning model characterized by real problems as a context for students to learn to think and be skilled in solving problems. Problem based learning is a learning model where problems are the starting point in learning that must be solved. Problems in PBL can be in the form of certain conditions or ways to achieve goals or processes. Through PBL students can solve the problems they face. The characteristics of PBL developed according to Arend (in Warsono, 2014) include PBL organizing teaching on a number of important questions or problems, both socially and personally.

According to Huda (2013) PBL steps include presenting problems to students, forming a small group to discuss the problem to be clarified, then brainstorming previous ideas and then identifying what is needed to solve the problem. Students engage in

independent study to solve problems outside of teacher guidance. Students then share information through peer teaching, or cooperative learning on a particular problem. Next, students present solutions to problems, then students review what they learned during the process. PBL learning is supported by constructivism learning theory with the characteristics of understanding obtained from the results of interactions with scenarios/activities related to problems and the learning environment, the learning process is based on problems and the process of inquiry of problems by creating cognitive dissonance that stimulates learning as well as a process of collaboration and evaluation of the existence of a point of view. Russman, 2013).

From the description above, it is necessary to conduct Collaborative Classroom Action Research to increase the activity and thematic learning outcomes using the Model*Problem Based Learning* in elementary school students. For this reason, the researcher chose the title of research about*"Efforts to Increase Activeness and Thematic Learning Outcomes through Problem Based Learning Models in Grade III Elementary School Students".*

3.   Method

3.1.   Participants and context

This research is a Collaborative Classroom Action Research (PTKK). This research was conducted to increase student activity and learning outcomes. In this study using the model from Kemmis and Mc Taggart which consists of four stages, namely: planning, action, observation and reflection (Prihantoro, Agung, 2019: 56). The subjects of this research were the third grade elementary school students, with a total of 27 students. This collaborative classroom action research was carried out in two cycles. The

implementation of each cycle follows the stages of planning, action, observation and reflection.

3.2. Material

Research instruments are tools or facilities used by researchers in collecting data to make it easier. The instruments in this study were (a) the observation sheet, the observation sheet serves to assess the activities carried out by the researcher in carrying out the research. Next is (b) the rubric for assessing student activity, this rubric functions to find out which student activities are classified as active. (c) Student cognitive learning outcomes assessment sheet to determine the increase in student learning outcomes.

3.3. Data collection and analysis

Data collection techniques are the most strategic steps in research, because the main purpose of research is to obtain data. The data collection techniques taken include: observation techniques, used to collect data about activities during learning activities, especially student activity in learning. then the researcher also observed the effectiveness of using the model *Problem Based Learning* at each stage of the model. This observation activity is facilitated by the existence of a research rubric or assessment rubric. Furthermore, data collection techniques for student learning outcomes are multiple choice cognitive tests in each cycle with a total of 20 questions (cognitive levels C4-C6).

The data from this study were analyzed qualitatively and quantitatively using observational data analysis expressed in the form of a percentage (%), to see the success of applying the model *Problem Based Learning* in the classroom in order to increase the activity and student learning outcomes. Assessment of student activity activity observation sheets is calculated using the following formula:

$$\text{Percentage of Activity Activeness} = \frac{\sum Skor\ Perolehan}{\sum Skor\ Maksimal} \times 100\ \%$$

The criteria for assessing student activity according to Arikunto and Safrudin (2009: 35) are as follows:

Table 1. Criteria for the value of student activity

No	Percentage	Criteria
1	80% ≤ X < 100 %	Very high
2	60% ≤ X < 80 %	Height
3	40% ≤ X < 60 %	Currently
4	20% ≤ X < 40 %	Low
5	0% ≤ X < 20 %	Very low

Data on students' thematic learning outcomes were calculated using the completeness criteria for Indonesian Language and Mathematics lessons. The Minimum Completeness Criteria (KKM) score for the two loads is 75. Analysis of the complete learning outcomes data is calculated using the following formula:

$$\text{Completeness of Learning Outcomes} = \frac{\sum Complete\ Student}{\sum Overall\ Student} \times 100\ \%$$

3.4. Ethical Considerations

All research or research involves humans as research subjects. Based on this, in this study there are basic principles of research ethics, including: the first is respect for people, in this case we must respect and value students, where these students are research subjects, then the second is benefits, in this research it provides benefits to learning in schools, especially in the activity and thematic learning outcomes of students.

3.5.   Study Limitations

There are limitations that are owned by researchers related to time, effort, and costs, this research is limited to efforts to increase the activity and thematic learning outcomes through the application of problem-based learning models in class III elementary school students. The subject matter is student activity in learning and student thematic learning outcomes.

4.   Results and Discussion

Collaborative classroom action research was carried out starting from pre-action activities (pre-cycle), followed by corrective actions in cycle I, and continued in cycle II.

4.1   Pre Action (Pre Cycle)

Pre-action teachers make observations of student activity and student learning outcomes. The results of the pre-action activities showed that the students' activeness only reached 46.66% (category: moderate), while the average student learning outcomes were 48.14% complete with the KKM of thematic learning being 75. In the pre-action it was seen that students were less active in learning. ongoing learning is still classified *teacher center*. Students are less able to understand the material well. Assignments given by the teacher are more on assignments that are individual or independent. Observations and research conducted in this Pre-Action became a reference for the implementation of cycle I.

4.2   Cycle I

Implementation of the first cycle, starting from the planning stage the teacher prepares learning tools. The teacher makes lesson plans, teaching materials, Student Worksheets (LKPD), evaluation tools, assessment instruments, learning media, and student activity observation sheet instruments. After that, the teacher carried out the learning cycle I with the learning model *Problem Based Learning*. After making

observations on learning cycle I, then making observations, and reflecting on learning. The results of the analysis in cycle I obtained the achievement of student activity, and student learning outcomes were still not as expected. In cycle I the teacher took action to improve the learning model *Problem Based Learning* but the teacher has not been maximal in conveying learning. The teacher has not been shown to provide motivation, has not conducted question and answer based on student experience, the teacher is not optimal in guiding student presentations. In addition, the teacher is not maximal in directing students to ask questions and reinforcement of the material is incomplete so that student activity is still not optimal. Therefore, the results of the analysis of student activity and learning outcomes are used as a reference for making improvements to learning in cycle II.

4.3   Cycle II

Implementation of cycle II, starting with the planning stage of the teacher preparing learning materials and making improvements with reference to the results of cycle I reflection. The teacher makes lesson plans, teaching materials, Student Worksheets (LKPD), assessment instruments, learning media, evaluation tools, and student activity observation sheet instruments. After that the teacher carried out learning cycle II. In cycle II, the teacher is more maximal in carrying out activities during the learning process by using models *Problem Based Learning* it can be seen in the observed data that there is an increase in student activity and learning outcomes. Student activity can be seen from being very enthusiastic in learning, being independent in responding to teacher questions quickly, and being enthusiastic in learning. Meanwhile, the results of the analysis of student learning completeness in cycle II have also been as expected.

4.4   Student activity

Data from observations of students' activeness in carrying out learning in cycle I and cycle II can be seen in table 2 below. Cycle I shows very high criterion indicators occurring when students record a summary of the material provided by the teacher, students complete the assignments given by the teacher. Indicators of liveliness are occurring in listening to friends' presentations. Children tend to be busy themselves when friends present material. Indicators that are still in the low category are the activities of students asking questions both to the teacher and to fellow students presenting. During pre-learning students are given notifications of teaching materials, assignments, and presentations. Most of them just kept silent and answered the questions that were given without asking questions. The teacher carries out learning reflection to plan and improve cycle II learning.

Observation data of cycle II obtained high activity of students on indicators of completing assignments given by the teacher, paying attention to friends' presentations, paying attention to teacher explanations, asking questions, recording material summaries and answering questions. The teacher has directed students to pay attention to friends during presentations and discussions. High category for indicators of completing assignments, and paying attention to the teacher's explanation. Teachers still have difficulties in directing students to pay attention to friends' presentations and asking questions because students tend to answer when students are called by name. According to Muhibin (2012: 146) that the factors that influence the active learning of students can be classified into three types, namely internal factors (factors from within students), external factors (factors from outside students), and learning approach factors(approach to learning). Even though it is still in the moderate category, this indicator has increased in cycle II.

The results of student activity from cycle I experienced an increase in cycle II. The average value of the activity indicator for the first cycle was 50.62% (level of activity: medium), for the activity of students in cycle II of 83.12% (level of activity: high).

Table 2. Results of Student Activeness Analysis

No	Activity Indicator	Cycle I	Cycle II
1	Pay attention to the teacher's explanation	50,00%	87,50%
2	Asking question	43,75%	81,25%
3	Answer the question	48,75%	80,00%
4	Completing the task	53,75%	93,75%
5	Pay attention to the percentage of friends	51,25%	75,00%
6	Record a summary of the material	56,25%	81,25%
	Rate-rate	50,62%	83,12%

The increase in student activity from cycle I and cycle II can be seen in diagram 1. This diagram shows an increase in student activity in most indicators. The teacher applies a question and answer system in learning and appreciates it, so that other students are motivated to do the assignments given by the teacher.

Diagram 1. Student Activity
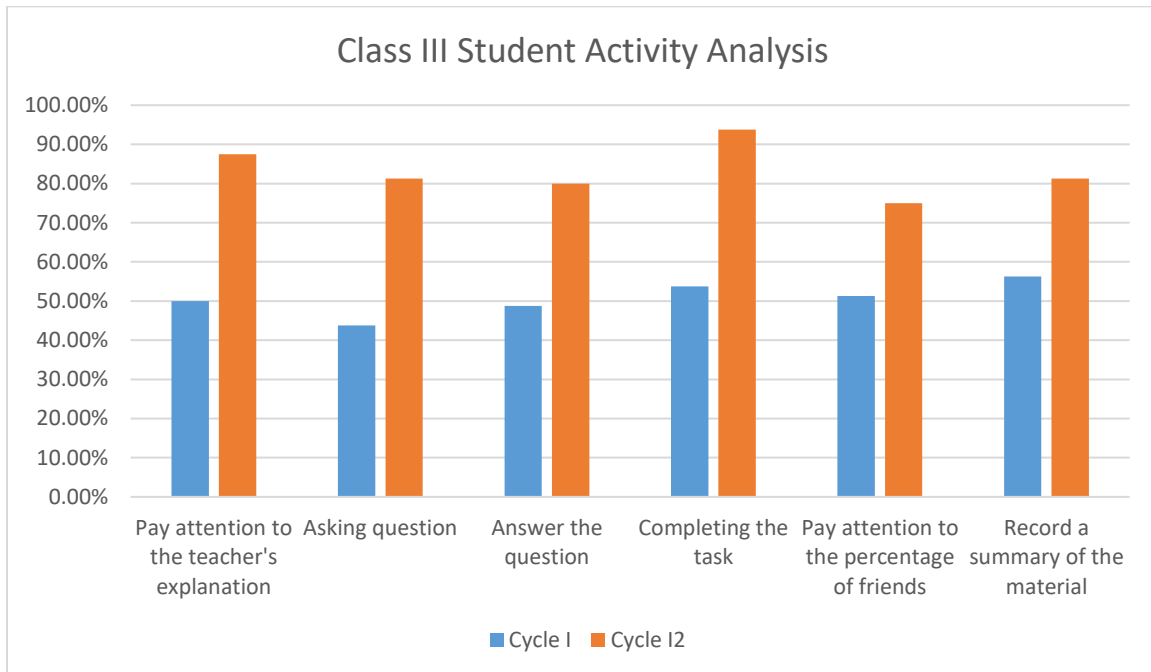
4.5 Student Learning Outcomes

Cognitive learning outcomes in thematic learning cycle 1 obtained data for incomplete Indonesian content as much as 14.46% and 30% for Mathematics. KKM on both content is 75. The minimum percentage of incomplete student learning outcomes may be caused by students not paying attention to friends' presentations and not actively asking questions so that the teacher has difficulty knowing whether the student understands the material provided or not. The teacher plans learning with the method *Problem Based Learning*, the hope is to improve learning outcomes in cycle II action. Cognitive learning outcomes in thematic learning cycles I and II can be seen in table 3.

Table 3. Analysis of Thematic Learning Outcomes

Load	Cycle I		Cycle II	
	Not finished	**complete**	**Not finished**	**complete**
Indonesian	14,46 %	85,54 %	12 %	88 %
Mathematics	30 %	70 %	25,04 %	74,96%
Rate-rate	22,23%	77,77%	18,52 %	81,48%

Analysis of students' incompleteness in cycle II decreased in Indonesian language content to 12% and Mathematics to 25.04%. Based on the results of observations in cycle II, some students began to prepare themselves to read teaching materials before learning, were more confident in their opinions, and their level of attention to friends was high. The courage of students to conclude learning is also one of the teacher's steps to find out how much learning material students can absorb and what material students do not understand. Providing motivation to students in cycle II makes it easier for students to understand learning material.

According to Rusmono (2012: 10) that learning outcomes are changes in individual behavior which includes the cognitive, affective, and psychomotor domains. This change in behavior is obtained after students complete their learning program through interaction with various learning resources and learning environments. The learning outcomes achieved by students are essentially the expected changes from their behavior. Student success can be seen from changes in behavior towards active learning and learning outcomes. Increasing student learning activeness is in accordance with the opinion of Endang Mulyatiningsih (2011: 219) which states that in the inquiry method, students learn actively. Improving student learning outcomes is a

process of developing teacher professional competence (Hartini, 2019). The results of this study prove that teacher professional competence is through research (Supriyanto, Hartini, Syamsudin, and Sutoyo, 2019). Self-development of students in basic education can require the help of guidance and counseling teachers (Prasetiawan & Supriyanto, 2016).

5.   Conclusion

Based on the results of data analysis in classroom action research about the influence of learning models *Problem Based Learning* to increase the activity and learning outcomes of students in class III thematic lessons, it can be concluded that: (1) teacher activity during the first cycle of learning using the learning model*Problem Based Learning* used as material for reflection to improve learning in cycle II, (2) Student activeness in learning has increased, this is indicated by increased student participation in learning (3) Student learning outcomes have increased marked by a reduced percentage of students who experience incompleteness in learning Indonesian and Mathematics. Research that has been done using the learning model*Problem Based Learning* proposed are as follows: (1) Teachers are expected to be able to use the Problem Based Learning learning model in subjects other than thematic and also be more innovative in applying the learning model. (2) Furthermore, it is expected to increase student-centered activities (*student center)* so that students are more confident and active in participating in learning.

6.   Confession

The researcher realizes that the preparation of this PTKK cannot be separated from the collaboration and assistance of various parties, for that, the researcher would like to

7.   Reference

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