

Improvement of Integrated Thematic Learning Process Using Problem-Based Learning Model

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Abstract. This research is motivated by the fact that the teacher is not yet optimally implementing integrated thematic learning, especially in stimulating students to think critically in solving problems. This study aims to describe how to increase integrated thematic learning with Problem Based Learning models in the fourth grade of Campago Ipuh 08 Primary School. This research is a Classroom Action Research (CAR) conducted in two cycles, with 3 meetings. The research phase includes planning, implementing, observing, and reflecting. The instruments used were observation sheets and test sheets. The subjects were teachers and 26 fourth grade students at Campago Ipuh 08 Primary School in Bukittinggi. The results showed an increase in a) Lesson Plan Cycle I with an average of 75% (B), Cycle II 91% (SB), b) Implementation of aspects of the first cycle teacher with an average of 78.15% (B) , Cycle II 92.8% (SB), Whereas in the aspect of students in cycle I with an average of 78% (B), Cycle II 92.8% (SB). Based on aspects of attitude assessment, knowledge assessment and skills assessment in the first cycle the average class obtained by students was 2.90 (B), in the second cycle, the average grade obtained was 3.23 (B +). Thus, it can be concluded that the Problem Based Learning model can improve the integrated thematic learning process in Primary Schools.

Keywords: Integrated Thematic, Problem Based Learning

1 Introduction

Education is one of determining factors to improve the quality of human resources. Education is very important in educating the life of a nation. Therefore, the government implements a national education system in improving the quality of education [1]. Minister of Education and Culture Regulations No. 57 of 2014 concerning the basic framework and structure of the elementary curriculum that "The implementation of the 2013 curriculum in elementary schools is done through learning with an integrated thematic model from grade one to grade six." This is done because the development of elementary school-age students is still holistic so that it will be more difficult for students if the learning process is carried out using subjects that have been used separately or stand-alone [2].

Integrated thematic learning is a form of learning approach that contains certain learning content that is linked through a learning theme suitable for the material contained in each learning. Thus, learning gives full meaning to students as reflected in various themes available

[3]. The theme used is related to the real environment of students. Thematic learning as an approach to teaching and learning that involves several subjects in one theme to provide meaningful experiences for students [4-7]. The point is students understand learning concepts starting from the real thing to abstract things in the environment following the concept of learning material. Students in integrated learning do direct experience activities, so they will more easily understand the concepts learned and then relate them to other concepts they have understood [8]. Students understand various concepts they always learn through direct experience and relate them to other concepts they have mastered [9].

The characteristics of thematic learning are student-centered, the separation between subjects is not visible, presents the concepts of various subjects in a learning process, flexible, learning outcomes develop following the interests and needs of students [5]. Thematic learning integrated with environment-based learning is where students can solve real everyday problems they face. Then the learning process must be designed so that students work in real terms and then do it. Learning is packaged to find problems and solve real problems encountered in everyday life [6]. Thematic learning, especially in elementary schools, will greatly help students to construct knowledge in their cognitive processes [10].

Problem Based Learning Model is a learning model that uses real-world problems. The problem is used as a context for students to learn critical thinking and problem-solving skills and to obtain essential knowledge and concepts from the subject matter [11]. PBL (Problem-Solved Learning) is learning that frees students to choose their research to enable them to relate it to real phenomena and build understanding with the concepts they get from these phenomena [12]. This model causes motivation and curiosity to increase. PBL models also become a place for students to develop critical thinking and higher order thinking skills [13]. In PBL, students learn to focus on complex problems with many possible answers [14].

By using the Problem Based Learning (PBL) model in integrated thematic learning, students are directed to think critically in understanding the real environment around them then students are taught to solve real problems in their environment. In solving problems, it requires cooperation in groups where each student is allowed to express his idea so that problem-solving is found following the concept of learning material.

This research was conducted based on observations on 08 Campago Ipuh Elementary School students. It is found that the teacher had not planned the learning carefully. The process of implementing learning has not used a particular learning model and teaching material provided by teachers is only based on one sourcebook. Besides, the extraction of knowledge by students is too shallow thus students cannot achieve the expected learning goals. Teachers do not carry out learning in an integrated manner because there is a separation between the content of learning and teachers cannot develop learning material following the real environment of students. Teachers only rely on the sourcebook provided without any connection to the environment. Thus, students cannot understand the various problems they have to solve related to the environment around them.

Teachers do not try to relate the material being taught to the real-world situation of students. This causes the learning process has not stimulated students to think critically in solving contextual problems. The other impact also causes students to appear less active in the learning process, students are less visible in conducting discussions and social interactions in groups, students only accept learning material delivered by the teacher without daring to issue their ideas in the learning process, as well as the student-centered learning process is less seen.

To overcome the above conditions, there needs to be an update on the teacher's teaching model that is natural and close to students. One alternative to do is to apply the PBL model. PBL model is a learning model designed and developed to improve students' abilities in

solving real problems exist in the student environment [15]. By using the PBL model, students are expected to not only receive information from the teacher, because in this case the teacher as a motivator and facilitator that directs students to be actively involved in the entire learning process by starting on problems related to the concepts learned to critical thinking and solve problems.

2 Research Methods

The implementation of this research uses classroom action research (CAR) using qualitative and quantitative data analysis. Subjects in this study were teachers and fourth-grade students of 08 Campago Ipuh Elementary School in the second semester of 2018/2019 Academic Year, which amounted to 26 students. This study uses a research stage by Kemmis & Mc Taggart, et al.[16]. “Broadly speaking, there are four stages carried out, namely (1) planning, (2) implementation, (3) observation, and (4) reflection”.

The data of this study were obtained from observations and tests in integrated thematic learning using the PBL Model for grade IV students at 08 Campago Ipuh Elementary School. Data collection techniques are done through observation and tests. Observations were made to observe the integrated thematic learning process using the PBL model. Observations were made through observation sheets. After observing, the researchers conducted a test. The test is used to strengthen the observation data that occurs during the learning process, especially in the mastery of learning material given to students.

3 Research Result

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3.1 Cycle I

3.1.1 Planning

Planning for the implementation of integrated thematic learning using the PBL model is formulated and realized in the form of a learning implementation plan. The formulation of lesson plans is arranged collaboratively between researchers and grade IV teacher.

3.1.2 Implementation

Cycle I was held in 2 meetings. The first meeting was held on Monday 15 January 2019 and the second meeting was held on Thursday 19 January 2019. Learning was carried out based on the Lesson Plan prepared using the PBL model.

3.1.3 Observation

- a. Lesson Plan Observation. The observation of the Lesson Plan format obtained 83% assessment percentage with success rate. The format of the Lesson Plan observation is adjusted to the PBL model steps.

- b. Learning outcomes. The assessment of attitudes obtained by students is 2.91 and the level of success is good. The assessment of knowledge obtained by students is 2.86 and the level of success is good. The assessment of skills is done by evaluating a skill in telling and reporting group discussions results with a value of 2.93.

3.1.4 Reflections

Observations about the implementation and evaluation of students in Cycle I showed that an application of the PBL model in integrated thematic learning had increased from the previous meeting but had not shown maximum results. Thus, increasing the integrated thematic learning process by using the PBL model in grade IV of 08 Campago Ipuh Elementary School will be continued in cycle II.

3.2 Cycle II

3.2.1 Planning

Planning an integrated thematic learning implementation using the Problem Based Learning (PBL) model is formulated and realized in a form of learning implementation plan. The formulation of lesson plans is arranged collaboratively between researchers and grade IV teachers.

3.2.2 Implementation

This cycle is carried out on Thursday, January 24, 2019, for 1 day from 07.30-12.30. Based on the prepared lesson plans, integrated thematic learning gets through three steps, namely preliminary activities, core activities, and closing activities using the PBL model.

3.2.3 Observation

- a. Lesson Plan Observation. Based on observations, the composition of the Lesson Plan components by researchers was improved and adjusted to the Regulation of the Minister of Education and Culture of the Republic of Indonesia No. 103 and 104 of 2014. The results of observations on the Lesson Plan format obtained 91% assessment percentage with a good success rate.
- b. Learning Implementation. Cycle II was held on Thursday, January 24, 2019, for 1 day of learning from 08.00-12.30. Based on the Lesson Plan prepared earlier, integrated thematic learning takes three steps, namely preliminary activities, core activities, and closing activities using the Problem Based Learning (PBL) model.
- c. Learning Outcome. The assessment of attitudes obtained by students is 3,23 and the level of success is good. The assessment of knowledge obtained by students is 3,16 and the level of success is good. The assessment of skills is done by evaluating a skill in telling and reporting group discussions results with a value of 3,27.

3.2.4 Reflections

The results of observations about the implementation and evaluation of students in cycle II indicate that the application of PBL models in integrated thematic learning has increased from

the previous cycle and shown maximum results. Thus, integrated thematic learning processes using PBL models in class IV of 08 Campago Ipuh Elementary School increases.

4 Discussion

4.1 Lesson Plan

In Cycle I before implementing the learning process, researchers first design the Lesson plan. The lesson plan is a learning plan per unit that will be applied by the teacher in classroom learning activities [17].

The Lesson Plan prepared in cycle I is in good value, but there are still several descriptors that have not yet appeared or been implemented. In cycle II, the Lesson plan is in very good value. Lesson Plans made according to PBL steps consist of: a) Preparing and throwing problems, 2) Forming small groups, 3) Students hunting information and data related to the problem, 4) Students gather in groups to report information obtained, 5) closing discussion activities [15].

All the deficiencies contained in the Lesson Plan have an impact on the implementation of learning, therefore the results obtained are not optimal as expected. Deficiencies in cycle I were corrected in cycle II to improve the quality of learning implementation, process, and student learning outcomes.

4.2 Learning Implementation

The implementation of integrated thematic learning using PBL models includes several stages:

4.2.1 Preliminary Activities

The teacher starts the learning by praying, checking students' attendance, reflecting on the learning material, conveying the learning theme but the teacher forgets to convey the learning objectives to be achieved.

4.2.2 Core Activities

- a. The teacher prepares a problem. The teacher explains the natural appearance of Kepulauan Seribu on the map. Then, the teacher explains the meaning of colors found on the map. By knowing the various colors on the map, students can identify various natural features based on the characteristics they have. The teacher asks about the various natural resources found there and the causes of untreated natural resources and natural disasters in each natural appearances. At this stage, it seems like the teacher has not motivated students yet to solve problems. Consequently, students are not too active in solving problems.
- b. The teacher forms a small group. Each group has a Leadership Basic Training related to natural disasters found in various highlands, lowlands, and beaches. Each group also has a text related to the problem discussed and has a book containing maps.
- c. Looking for information and data related to the problem. Based on the problem, students read texts related to various natural resources and damage that occurs in the lowlands, highlands, and beaches. Then students use a maps-book to identify various natural features

- in West Sumatra. Students note the important points they get from reading. Students gather in groups to report the data obtained.
- d. Students sit back in their groups, then present the information obtained and discuss to formulate answers to the problems. At this stage students were not seen actively discussing the problem, only a few students were actively expressing their opinions. The atmosphere of discussion has not been seen because students do not know the techniques of discussion that are good and right because the teacher has not given instructions on how to discuss in groups.
 - e. Closing discussion. Each group presents the group discussion results. However, due to insufficient time allocation, only 3 groups present the results. Students from other groups are allowed to respond if they have different answers. However, only a few students express their opinions because the teacher forgets to inform additional value for students who gave responses to other groups. Students complete the discussion results in each notebook based on presentations from other groups. Then, the teacher gives reinforcement and asks if the students already understand the materials.

4.2.3 Closing Activities

In closing activities, the teacher gives a follow-up by evaluating the learning material learned in the classroom. The teacher collects student work and reflects on the learning material learned and then the teacher concludes and closes the learning.

5 Conclusion

Based on the results of research and discussion concluded that: Thematic integrated learning planning in grade IV elementary school using the PBL model has several components namely core competencies, basic competencies, indicators, learning objectives, learning materials, learning processes, learning methods, learning media, learning resources, and learning assessment.

Based on observations made on the Lesson Plan in Cycle I, the percentage obtained was 75% with good qualification (B). Lesson plan in this cycle has not been maximized so that the learning process and outcomes do not meet the Minimum Mastery Criteria. The deficiencies found in the cycle I will be corrected in cycle II. In cycle II, the Lesson Plan assessment was 91% with very good qualification (SB).

From the observations in Cycle I of meeting I showed that the implementation of learning has not been maximally seen with the percentage obtained by 73%. In cycle I of Meeting II the percentage obtained was 83.3%, while in Cycle II the percentage obtained was 92.8% with a very good qualification (SB). From this percentage, it can be seen that there is an increase in the implementation phase of learning from cycle I to cycle II.

Assessments conducted on students using the PBL model show improvement in aspects of attitude assessment, knowledge assessment, and skills assessment. In cycle I, the average grade obtained by students of class IV of 08 Campago Ipuh Elementary School was 2.90 (B). Then in cycle II, the average class obtained was 3.23 (B+).

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