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Implementation of the Project Based Learning Model in Class V Elementary School Science Content

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Abstract
This research was conducted with the aim of describing the implementation of the project based learning model in class V science content at State Elementary School 47/IV, Jambi City. This research uses a qualitative approach with a phenomenological type of research. The data sources in this research were class teachers and class V students at State Elementary School 47/IV, Jambi City. Data collection techniques in this research used interviews and documentation. The data obtained was analyzed in stages, first data reduction, second data presentation, third drawing conclusions and data verification. The results of this research show that the implementation of the project based learning model on science content at State Elementary School 47/IV Jambi City has three stages in implementation, namely: (1) preparation stage. (2) implementation stage. (3) follow-up stage. From the research results, it can be concluded that in implementing the project based learning model in class V science content at State Elementary School 47/IV Jambi City, this is a learning model applied by class V teachers at State Elementary School 47/IV Jambi City, thus creating interesting learning in learning.

Keywords: Project Based Learning Model; Science Learning

INTRODUCTION

Education is inherent in human life from birth, of course education can accompany humans in making changes in attitudes and behavior to become more mature individuals (Khairazi, 2015). In the current era of globalization, education is very important in the progress of a nation. Likewise with this nation, the government pays great attention to the field of education, especially basic education because basic education is the basis for forming the character of students. This is intended for a teacher who is required to be diligent, skilled, active and creative in carrying out learning and stimulating students' learning activities so that they can develop their potential.

In elementary schools, science is known as the science that seeks to find out about nature systematically, so that science is not only the mastery of a collection of knowledge in the form of facts, concepts or principles but is also known as a process of freedom to search for and discover events that occur in nature. Science lessons in elementary schools are a learning program that aims to develop and prepare students so that they are quickly responsive in dealing with the surrounding environment (Yunus & Alam, 2015; Ardiyanti, 2016). By using a scientific approach, students are asked to actively search for themselves in learning, especially science learning. In line with that, the word "IPA" is usually translated

as Natural Science which comes from the word Natural Science. Where Natural means natural and related to nature, while science means knowledge. It can be concluded that science can literally be called the science of nature or phenomena that occur in nature. Science learning in the classroom can: 1) develop students' cognitive abilities, 2) develop students' affective skills, 3) develop students' psychomotor skills, 4) develop students' creativity, and 5) train students to think critically.

In science learning in elementary schools, teachers must involve students directly and provide opportunities for students to find information with or without the teacher's help, so that students can be fully involved in learning (Surayya et al., 2014; Hapsari & Nurcahyanto, 2016). In science learning activities, students should be brought into real situations, students can see and prove it for themselves, students construct their own knowledge based on existing facts and can gain real experience. Methods that can be used in developing the learning process can start from innovative learning models. One model that is currently being developed is the Project Based Learning model.

Project based learning is a model that focuses learning on real problems, and creating projects to motivate students to be more actively involved in learning material and can develop critical thinking skills (Hakim, 2015; Sudewi et al., 2013). Until now, this model is considered an effective model for learning science. Most teachers already know the importance of implementing the project based learning model in science learning to help students carry out experiments, not only in terms of products but also in terms of the science process itself. However, in the learning process, students often find it very difficult to experience and understand the material. This is caused by a lack of understanding of the material by students, so that the ability of class V elementary school students to understand lessons is still lacking in other science learning.

Based on a preliminary study conducted by researchers in class V of Jambi City 47/IV Elementary School with class teachers, it was found that in the science learning process students were actively involved when participating in the learning process. This is because the class teacher uses a project based learning model. The class teacher stated that project based learning is an effective learning model that encourages students to be more active in the learning process. The aim of this research is to describe the implementation of the project based learning model in grade V elementary school science content.

RESEARCH METHODS

Research Design

The research used by researchers is a qualitative approach. Because a qualitative approach is used to describe, describe, explore and describe information related to the research used by researchers, namely regarding the implementation of the project based learning model in Grade V Elementary School science content. Meanwhile, the type of research used in this research is phenomenological research, which is a view of thinking that emphasizes focusing on subjective human experiences. Phenomenology describes the meaning of a life experience experienced by several individuals regarding a concept or phenomenon. Phenomenology was carried out to see the teacher's experience in dealing with phenomena, namely the implementation of the project based learning model in the science content of Class V Elementary School.

Research Target/Subject

The most important information data is collected and then studied to produce qualitative data. This data will be extracted from various sources and types of data used in this research, namely interviews with informants or resource persons, namely class V teachers at State Elementary School 47/IV, Jambi City and documents or archives in the form of photos of students' activities in class, observation sheets Teacher.

Research Procedure

The implementation of this research was planned in three cycles. Each cycle consists of planning, implementation, observation and reflection.

1. Preparation Stage

The preparatory stage for this research begins with preliminary study activities, initial visit activities carried out by the researcher to the State Elementary School 47/IV, Jambi City, as well as determining the research subject and to get a clearer picture of the research topic, namely the implementation of the project based learning model on science content. Class V Elementary School.

2. Research Implementation Stage

At the implementation stage, researchers collected data using instruments that had been prepared, namely interview and observation instruments, as well as documentation. After the data is obtained, the data is analyzed using the steps of reducing the data, presenting the data, and drawing conclusions from the data.

3. Completion stage

At the completion stage, the researcher compiles the data that has been obtained from the research and has been analyzed, making it in the form of a research report. Apart from that, the research results will answer the problem formulation created by the researcher.

Instruments, and Data Collection Techniques

Data collection in this research was carried out using three techniques. These three techniques are described as follows:

1. Observation

Observation is a way to obtain data by looking and observing directly what has been researched and observing behavior in certain conditions, then the researcher explains what the researcher has seen and experienced directly. This observation is used as a guide for observing the activities of teachers and students in carrying out the learning process, carried out to find out the process of observing learning activities in a real/concrete way. The reason the researcher chose the observation technique was because the researcher wanted to observe students' learning activities and teachers' teaching activities as subjects in the research and could observe learning activities using the project based learning model in grade V elementary school science content. Before the researcher makes observations, the researcher first makes an observation guide as a reference so that when making observations he remains focused on what he wants to research and does not leave the context of the research objectives.

Table 1. Observation sheet grid

Variable	Indicator
Implementation of the Project Based Learning model in grade V elementary school science content	1. Students' attention to the teacher's explanation of science learning 2. Understand a problem given by the teacher when creating a project 3. Students' ability to give arguments 4. Discuss with the group to create a Change in Form of Objects project 5. Present the results that have been discussed, namely the Change in Form of Objects project.

2. Interview

The interview used in this research is a semi-structured interview where the implementation is freer compared to structured interviews. This interview technique was used to make it easier for researchers to obtain in-depth data about the implementation of the project based learning model in the science content of

Class V Elementary Schools. Interviews were conducted as a means to support observation data carried out by researchers. The interview guidelines have been prepared as follows:

Table 2. Teacher Interview Guide Instrument Grid

No	interview guidelines	Answer
1	Background, environment and activities for class V science learning at State Elementary School 47/IV Jambi City	
2	Implementation of the project based learning model for science content in class V at State Elementary School 47/IV Jambi City	
3	Solution for increasing student activity in science learning in V at State Elementary School 47/IV Jambi City	
4	Teacher steps in implementing the project based learning model	
5	Achievement results and expectations	

3. Documentation

Documentation is a data collection technique that supports and complements interview observation techniques and qualitative research. Documentation is a data collection technique by analyzing and compiling supporting documents, both written, images and electronic (Fatimah, 2014). Documentation techniques are data obtained from observation techniques and interview techniques (Sujarweni, 2014). In this qualitative research, researchers used documentation in the form of learning planning instruments (RPP and Syllabus), as well as other supporting documents, such as photos of observation activities and interviews.

Data analysis technique

Data analysis was carried out by grouping data from teacher aspects and student aspects. The technique used is a qualitative data analysis technique developed by Miles and Huberman which consists of three stages of activities, including: (1) reducing data, (2) presenting data, and (3) drawing conclusions and verification. The following is a description of the three stages as follows:

1) Data reduction is an activity process for selecting, focusing, simplifying all data obtained from the beginning of data collection to the preparation of research reports.
2) Presenting data is a process of activities that also serve as reduction results by narratively compiling a collection of information that has been obtained from the reduction results so that conclusions can be drawn and action taken.
3) Drawing conclusions and verifying data, namely providing conclusions on the results of interpretation of evaluation data which includes searching for the meaning of the data and providing explanations, then verification activities are carried out, namely testing the truth and robustness of the meanings that emerge from the data.

RESULTS AND DISCUSSION

According to Surya et al., (2018) explained that a learning implementation plan is a plan that describes learning procedures to achieve one or more KD which are implemented in content standards and described in the syllabus. With the development of the times, learning activities have been developed to be more interesting and less monotonous, for example by creating interesting student worksheets so that students can be interested in carrying out learning activities, especially in making projects. This still takes into account students' abilities and is in accordance with learning objectives. Developing a learning implementation plan for learning activities using a project based learning model, especially in science content learning, must be in accordance with the characteristics of the material and in line with the demands of learning material in theme 7 sub-theme 1 pb 1. Learning in Theme 7 Sub-theme 1 pb 1, namely science content about Change The thing is, that in order to prepare learning using a project based learning model

that is in accordance with the schedule that has been prepared, several things need to be considered, including the first; Just adjust it to the students' abilities, meaning that project based learning activities are carried out in line with existing materials, facilities and infrastructure that are affordable for students and the students' situation in using learning media.

In the initial stage of activities, before starting the learning activities, the teacher follows the learning activities in the learning implementation plan, namely the introduction, core and conclusion which have been adapted to the project based learning model for science content, namely about changes in the form of objects in theme 7 subtheme 1 pb 1. Before making a project, the teacher divides the students into several groups, then the teacher tells the students to prepare the tools and materials that will be used to make the project. The teacher explains what project will be made according to the material, namely the science content. Apart from that, teachers' learning activities must apply the strengths of individual students, this is one of the preparation efforts before use.

The implementation stage is carried out in learning using a project based learning model, namely through opening activities, the opening activities carried out by the teacher are adjusted to the learning implementation plan, and then the teacher explains the learning plan to the students that has been made, namely the plan for making a Change in Form of Objects project. according to the material characteristics of the Pb content of the IPA. The activity of making a project must be accompanied by a teacher, so that students can easily provide feedback on questions during the learning activity in order to remind them of the learning material learned previously.

The second implementation is that the teacher applies the project based learning model by distributing LKPD to each group that has been distributed. The LKPD with science content about changes in the form of objects is prepared as attractively as possible in order to make students more focused, enthusiastic and have fun in the learning atmosphere. The learning process in the 2013 curriculum is more focused on scientific learning which includes asking questions, observing, gathering information, adapting and communicating.

The third implementation carried out by the teacher is in the form of reinforcement and conclusions. Appreciation is all a person's relationship to art. Including appreciation is perception, knowledge, understanding, analysis, involvement, appreciation, enjoyment, and reaction or response. Teachers give appreciation to students, evaluate students both in groups and individually. Then the teacher provides reinforcement to students so that students remain enthusiastic and motivated in participating in the next learning process. This reinforcement is carried out at the end of learning activities by giving students the opportunity to summarize the learning activities of that day, and teachers also provide reinforcement after learning to students which is very important, because the response given to the students' behavior or actions is considered good and possible recurrence. Apart from that, the teacher also provides conclusions at the end of the lesson in order to provide reinforcement for learning activities by creating a Change in Form of Objects project.

Follow-up is defined as a process of activities in determining the effectiveness and timeliness of various actions that have been carried out by someone. The first follow-up given by the teacher is that the teacher evaluates each group and individual, after that the teacher gives assignments to students, these assignments are prepared by the teacher according to the learning material. The assignments given are to strengthen the learning material that has been implemented at that time, apart from creating a project on Changes in the Form of Objects or skills, students also understand the learning material on Changes in the Form of Objects.

The second follow-up is regarding providing motivation. Motivation aims to keep students enthusiastic about participating in learning activities. Providing motivation in learning is very important, motivation provides encouragement that moves students to carry out activities (Saptono, 2016). Providing motivation lies at the end of the learning activity. To attract students' attention, they can provide non-observant learning activities, namely learning that can improve and involve students' skills so that students do not feel bored in participating in the learning process by creating projects. By creating projects with science content that is interesting to students, it can be a stimulus for students in the learning process.

Based on the results of this research, it is hoped that it can help teachers in implementing project based learning, providing an overview of the process or stages that teachers must carry out before learning activities begin or the implementation of the project based learning model takes place. The project based learning model allows students to improve their skills and activity, so that learning using the project based learning model has a positive impact in improving the quality of learning activities. The project based learning model can be used as an effective learning model for teachers in delivering lesson material. By implementing this project based learning model, teachers can create learning that is interesting, conducive and involves students so that the learning material provided by the teacher can be delivered well and efficiently.

CONCLUSION

Based on the results of this research, it shows that the implementation of the project based learning model in class V science content at State Elementary School 47/IV Jambi City which is applied by teachers has three stages when implementing the learning. First, the Preparation stage, the teacher prepares the RPP, LKPD according to the learning material that will be implemented, namely the science content regarding Changes in the Form of Objects. Then the teacher then determines the project that will be implemented in accordance with the KI, KD, indicators and learning objectives. The two implementation stages are activities in the form of learning processes contained in the RPP, namely preliminary activities, core activities and closing activities. The third follow-up stage, the activities of the teacher and students conclude the learning material regarding the project creation process, the teacher provides reinforcement, the teacher provides feedback questions, the teacher gives assignments to students, students also look for other learning resources to enrich the material they have learned.

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