IMPLEMENTATION OF COMMUNITY SCIENCE TECHNOLOGY (STM) LEARNING IN ECOSYSTEM MATERIALS FOR CLASS V SD NEGERI PANGENREJO

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ABSTRACT

It is important to apply community science and technology learning to increase student interest in learning and insight. This study aims to describe learning science, technology and society approach on ecosystem material in class V SD Negeri Pangenrejo. The focus of this research is: 1) Learning Implementation Plan 2) Steps for learning science, technology and society. 3) Obtaining the results of observations. The subjects of this study are: 1) Learning activities with a science-technology and community approach. 2) fifth grade students of SD Negeri Pangenrejo. The method used in this research is descriptive method. Data collection tools are questionnaires and documentation. Data processing was carried out using a qualitative descriptive analysis. The results showed that students were able to understand ecosystem material through direct observation of the ecosystems in the paddy fields.

Keywords: *Community Technology Science (STM), Ecosystem*

INTRODUCTION

The learning process does not only manifest student behaviour in the cognitive, affective, and psychomotor domains but fosters a learning culture. This learning culture will enable students to dig up information about their surroundings, recognize themselves, be able to adapt to the environment and know how to live in society and be able to compete in a healthy manner or work together. This culture will later make students able to respect other people (Trianto, 2015: 5).

In accordance with Republic of Indonesia Government Regulation No. 19 of 2005 concerning National Education Standards, teachers in organizing learning must foster motivation and provide space for students to actively participate in learning, so as to develop students' talents and interests.

Learning is an activity of absorbing knowledge in nature, it is how students learn to explore, explore, and find to gain knowledge. This implies that learning does not have to be

centred on student knowledge through teacher-focused teaching. In learning, the teacher is often the centre of teaching, the teacher dominates, while students are passive without any democratization and ignore the human rights of students.

Learning should be designed or planned, while the design must be developed and implemented, learning activities must be managed, effectively and efficiently and must be evaluated. The delivery of science learning requires appropriate learning model facilities and learning tools. Natural science or science is the study of natural phenomena which include living and non-living things or the science of life and the science of the physical world. Scientific knowledge is obtained and developed based on a series of studies conducted by scientists in seeking answers to the questions "what?", "why?", and "how?" from natural phenomena and their application in technology and everyday life.

The community science technology learning model is a learning model that links science to technology and its benefits to society. The scheme of the stages can be seen in the following   figure:
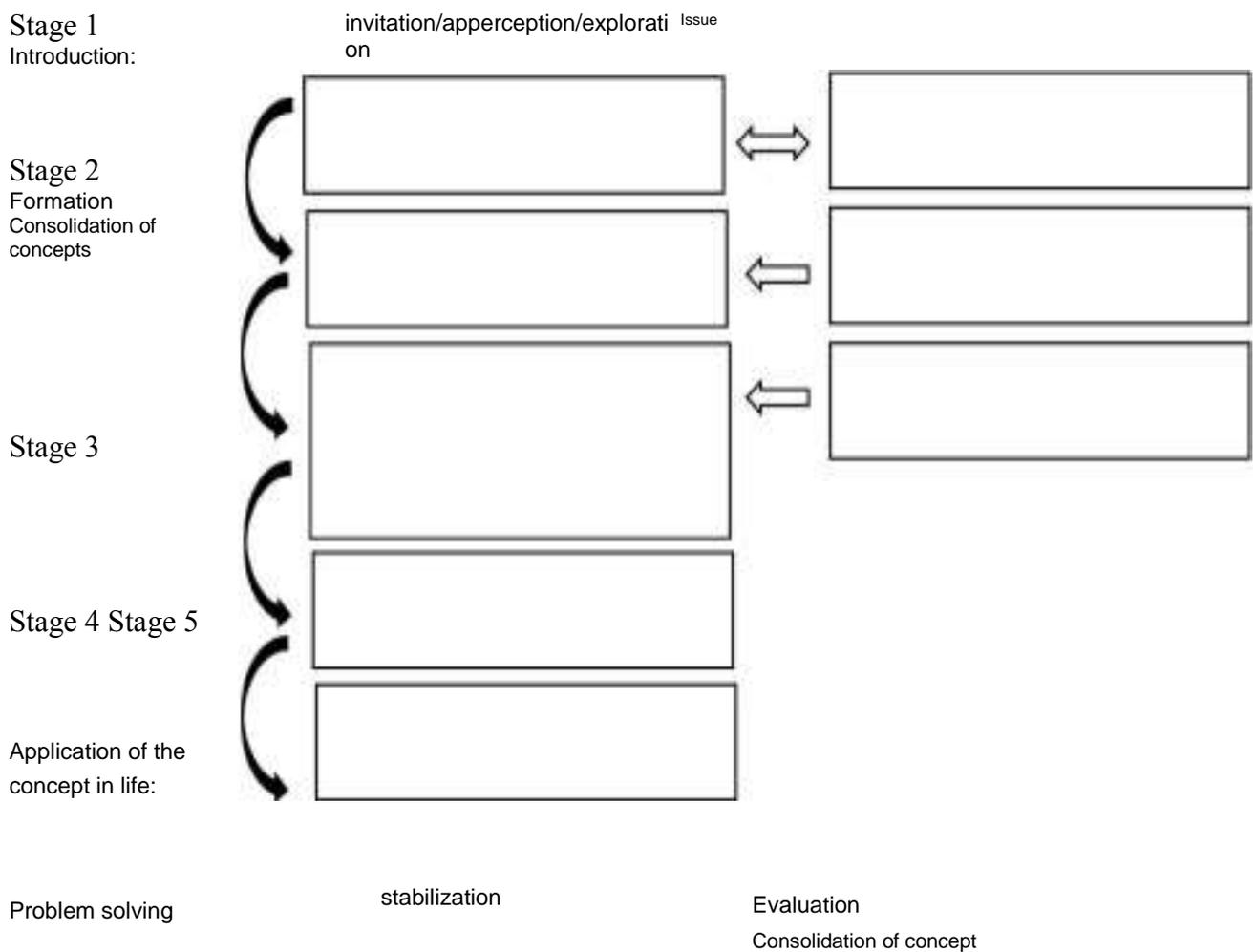
Stage 1
Introduction: invitation/apperception/explorati Issue
                                 on

Stage 2
Formation
Consolidation of
concepts

Stage 3

Stage 4 Stage 5

Application of the
concept in life:

Problem solving   stabilization   Evaluation
                                                        Consolidation of concept

Figure 1. Learning Model Science Technology Society

METHOD

This study used descriptive qualitative method. Qualitative descriptive research was chosen because there is some information that can be obtained through descriptive research for problem solving. Descriptive research is research that describes a research result that aims to provide a description, explanation, as well as validation regarding the phenomenon being studied. This research is an examination of learning activities in the form of an action, which is deliberately raised and occurs in a class together.

According to Miles and Huberman, analysis of Qualitative Descriptive Research data can be carried out through several steps, namely data reduction, data presentation, and data verification or conclusion. There are several stages that researchers do in order to carry out learning ecosystem material with the STM (Science Technology Society) learning model. The stages are 1) Introduction: exploration of students, 2) concept formation, 3) application of concepts in life, 4) strengthening of concepts, 5) assessment. Based on these stages, it can be stated that the STM model connects learning materials with technology that students find in everyday life.

This research was conducted in class V SD Pangenrejo, with a total of 25 students consisting of 15 girls and 10 boys. This research was conducted on December 13, 2022. The object of this research is to increase student learning outcomes in the material Energy and Change. In this study the factors studied were student factors namely by looking at the increase in student learning outcomes and activity factors during class learning whether they are in accordance with the learning scenarios that are made.

RESULTS AND DISCUSSION

Based on the research that has been done, the results show that students are able to understand ecosystem material through the STM (Science Technology Community) learning approach. This can be known based on student learning outcomes using the STM model, namely students go directly and then relate each event to science through the natural environment approach.

At this stage, students carry out learning activities by observing and providing examples, forms, and sources of energy. In addition, students also give examples of the benefits of energy sources and so on.

CONCLUSION

Based on the results of the research and discussion above, it can be concluded that there is an increase in knowledge and interest in student learning in the STM (Science Technology Society) learning model on ecosystem material. This can be seen from the results of the student observation questionnaire. On average students can answer according to the statement of observations made. The statement of these observations is that students can find out the forms of energy sources, students are able to name various energy sources, then students also know the uses of energy sources in life. The community technology science learning model can be used by other researchers on other subject matter. The learning process using the community science and technology model is expected to make students more sensitive to events and even circumstances in the natural surroundings, so that student learning outcomes can be more optimal.

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