

## **STM APPROACH AS AN EFFORT TO INCREASING STUDENTS' CONCERN FOR THE ENVIRONMENT**

**Risma<sup>1</sup>, Sobiyatul Mutamima<sup>2</sup>, Laila Turrochmah<sup>3</sup>, Dimas Angga Lesmana<sup>4</sup>,  
Raysita Cahya Anggraeni<sup>5</sup>**

*lailaturrochmah595@gmail.com*

**Prodi PGSD, Fakultas Keguruan Dan Ilmu Pendidikan, Universitas Muhammadiyah  
Purworejo, Purworejo, Indonesia**

### **ABSTRACT**

The STM approach is a business and learning process with the application of science and technology related to people's lives. This STM approach was demonstrated at Tunjungtejo State Elementary School in the Science class III SD subject on theme 3 (Objects around me), sub-theme 2 (Object form). The goal that will be achieved in this research is to increase students' awareness of the environment and maintain environmental sustainability. This research is using experimental method. In the process of teaching and learning with the experimental method, students are given the opportunity to experience themselves or do it themselves, follow a process, observe an object, state or process of something. After students carry out experiments on environmental pollution, it is found that students are able to work together and there is concern for the environment in groups to discuss environmental pollution and carry out tests or evaluations. the results of the process evaluation in each lesson show that most students feel happy and look active in the learning process. Based on this, it can be seen that the STM (Science Technology Society) approach can increase students' awareness of the environment so that the STM approach itself can be used as a learning method carried out in elementary schools.

***Keywords : STM, Student Concern, Environment.***

### **INTRODUCTION**

Education is an effort or form that is carried out to create a learning atmosphere. With the learning process, students can actively develop their potential to have religious spiritual strength, personality, intelligence, character, and the skills needed. Education can also be interpreted as a systematic effort to achieve a standard of living for the better progress of these students. In simple terms, education is a learning process for students to be able to understand and also make students become more critical in thinking. In the education system, skilled teachers have the ability to utilize these abilities with appropriate learning strategies for students. A teacher certainly wants to provide positive results and benefits to students. This is in line with R Hadawiyah et al in Abbas and Nurhayati (2019: 53) The teacher wants to be able to improve all students' abilities in a positive direction including also student achievement through the learning process, because in learning there are processes that can bring about changes in knowledge, attitudes, and skills in learning.

The STM approach is an attempt to present science in the learning process by using the problems of applying science and technology from the real world and its relation to people's lives. In this approach students are faced with a problem that occurs in the surrounding environment as a result of the development or use of technology that is troubling people's lives, so students are then invited to find solutions to overcome these problems by using the basis or applying scientific

principles R Hadawiyah et al in Riastuti, (2019:54). From the opinion above, it can be interpreted that the STM approach is a business and learning process with the application of science and technology related to people's lives. This is intended to find a solution to overcome problems that occur in the surrounding environment as a result of the development or use of this technology.

Science, technology and society, namely learning that is based on constructivism theory and can be applied to society. This learning model was developed in relation to pollution based on intangibles, especially soil, water and air pollution to improve students' natural science learning outcomes in intangible material. The students' concept mastery ability and environmental care attitude towards pollution based on the form of objects in SD Negeri Tunjungtejo related to aspects of science, technology and society (STM), this approach model has never been introduced in SD Negeri Tunjungtejo, so researchers feel the need to apply this approach. Research that will be developed through pollution material based on the form of objects using a science-technology and society (STM) approach.

R Hadawiyah et al in Kresnawati (2019:55), students' understanding of the environment can create a young generation who cares about the environment. Implementation of instilling an attitude of caring for the environment can be integrated into the curriculum. For this reason, concern for the environment should be instilled in students from an early age in the hope of increasing their awareness of the environment and preserving the environment. From the explanations from the experts, of course the attitude of caring for the environment can be applied in science subjects for class III SD on theme 3 (Objects around me), sub-theme 2 (Objects form). If seen from the student scores in science subjects, they have reached the minimum completeness criteria (KKM). Students are also able to mention activities that must be carried out to protect the environment and are able to mention pollution based on the form of objects, if humans are unable to protect the environment.

## **METHOD**

This research is using experimental method. The experimental method is a learning method in which teachers and students work together on something as a practical exercise of what has been learned. According to Djamrah the experimental method is a way of presenting lessons, in which students conduct experiments by experiencing something they are learning for themselves. In the process of teaching and learning with the experimental method, students are given the opportunity to experience themselves or do it themselves, following a process, observing an object, state or process of something. In another sense, students are required to experience themselves, seek the truth, or try to find a law or proposition, and draw conclusions from the process they experience.

The use of this technique has the aim that students are able to reach and find various answers to the problems they face by conducting their own experiments. Also students can be trained in scientific thinking (scientific thinking). With experiments students find evidence of the truth of a theory something that is being studied. The approach cannot be applied without involving applicative methods, so each learning approach includes several methods based on the characteristics with the goals and competencies in each approach. These approaches include: (1) Rational Approach (2) Collaborative Approach (3) Communicative Approach (4) Informative Approach (5) Reflective Approach (6) Thinking Approach.

## **RESULTS AND DISCUSSION**

The implementation of learning carried out at SDN Tunjungtejo using the STM approach in this study used a three-stage strategy, namely the initial stage, the core stage, and the final stage. Efforts made to increase students' awareness of the environment regarding environmental pollution are implementing learning at the core stage through four stages, namely the invitation stage, the exploration stage, the solution stage and the application stage. Through these 4 stages students are guided to manage their own thinking in order to gain an understanding of what they have learned, namely environmental pollution. In this lesson, students are asked to understand in class so that it can be understood easily and is very enjoyable. Students feel that the steps taken by the teacher in teaching can motivate students to quickly understand and understand the learning material.

In the Science-Technology Society (STM) approach students must be involved in setting goals, planning procedures, and in obtaining information, as well as in evaluating. In addition, all activities carried out by students are only directed and given guidance by the teacher. The teacher gives encouragement to students so that students can work together, help each other overcome difficulties, and respect each other's opinions between groups. The teacher also always provides guidance as necessary to students who experience difficulties in learning activities. The teacher tries to make the students themselves receive and understand knowledge through group activities by way of discussion. After students carry out experiments on environmental pollution, it is found that students are able to work together and there is concern for the environment in groups to discuss environmental pollution and carry out tests or evaluations. It was proven that during the implementation of the evaluation test experiment the teacher was given to find out the level of knowledge and ability of students in the learning process using the STM approach. It is known that based on the results of process evaluation in each lesson, it shows that most students feel happy and look active in the learning process. Based on this, it can be seen that the STM (Science Technology Society) approach can increase students' awareness of the environment so that the STM approach itself can be used as a learning method carried out in elementary schools.

## **CONCLUSION**

It can be concluded that the STM approach is an attempt to present the process of science in learning by using the problems of applying science and technology from the real world and its relation to people's lives. This research is using experimental method. The experimental method is a learning method in which teachers and students work together on something as a practical exercise of what has been learned. The use of this technique has the aim that students are able to reach and find various answers to the problems they face by conducting their own experiments. based on the results of the process evaluation in each lesson, it shows that most students feel happy and look active in the learning process. Based on this, it can be seen that the STM approach can increase students' awareness of the environment so that the STM approach itself can be used as a learning method carried out at the elementary school level.

## **REFERENCES**

- Hadawiyah, Ruhul, P. Budi Adnyana, and IW Sukra Warpala. "Efektivitas Penerapan Pendekatan Stm Dalam Pembelajaran Ipa Terhadap Pemahaman Konsep Dan Sikap Peduli Lingkungan Kelas Vii Di Smp Negeri 3 Singaraja." *Jurnal Pendidikan Biologi Undiksha 6.2* (2019): 52-61.
- Padang, F., & Jamaluddin, J. (2020). Penerapan pendekatan sains teknologi masyarakat (stm) untuk meningkatkan pemahaman pencemaran lingkungan pada siswa kelas iii sd kemala bhayangkari makassar. *Embrio pendidikan: jurnal pendidikan dasar*, 5(2), 18-25.