

IMPROVED STUDENT PARTICIPATION OF MIND TO LEARNING THEMATIC USING COMMUNITY TECHNOLOGY SCIENCE (STM) SCIENCE APPROACH CLASS IV IN PRIMARY EDUCATION

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ABSTRACT

This research is motivated because students have not fully participated in the thoughts on thematic learning in class IV SDN 24 Kalumbuk City of Padang. Students have not seen much like expressing opinions, asking questions, and answering questions, in learning activities. The activity of reflection is carried out collaboratively between the researcher and the observer each time the learning ends. Based on the result of collaboration refers to the implementation of the learning process by using a scientific approach Society Technologies (STM) has been carried out by researchers in accordance with the steps listed in the lesson planning. Implementation of the second cycle of learning first meeting was held on Friday 5 Mei, 2017, conducted by the planning, the implementation of learning to follow the steps of learning by using approach Science Technology Society (STM).

Keywords: Student Mind Participation , Learning Thematic Approach (STM)

INTRODUCTION

Level education level School Elementary has a set of integrated learning thematic learning themes. Integrated thematic learning is a learning approach that combines various competencies from various subjects into various themes (Taufina, 2013). Whereas according to (Prastowo, 2017) states that thematic learning is a learning approach that integrates various competencies from various subjects into various

themes. Based on the results of observations and interviews in class IV of primary school 24 Kalumbuk, Padang City on November 17, 2016, November 24, 2016 and December 1, 2016, researchers saw the learning process carried out by classroom teachers still using the lecture method, question and answer and learning that are still teacher-centered (*Teacher Center*), so students in the class do not participate in learning. This can be seen in the learning process, that students are lacking in participation, thoughts, views from students not daring to express opinions in the learning process takes place so that learning is less effective and not meaningful, to material changes in the form of objects. When asked about material changes in the form of objects students are not able to distinguish changes in the form of objects such as melting.

Based on the problem above seen that mind participation learn students class IV SDN 24 Kalumbuk, Padang City still low. One of the way you can do that is related with way teacher learning, on when the teacher does related assessment with participation mind. The teacher evaluates how students ask, answer, and do the task ordered by a good teacher that in the form of work house and another skill that power students, as well students could take notes conclusion from material already be delivered by the teacher at the end of the learning meeting.

In learning a teacher should be able to use a suitable learning approach to increase student learning participation (Hermon and Dalim, 2005; Hermon, 2015). The learning approach that will be used by the teacher will have an impact on the learning process (Hermon and Dalim, 2006), with the use of a suitable approach One of that approach able to increase right participation learn students especially on integrated thematic learning namely with use approach science Technology Community (STM). The STM approach is approach linking learning between science and technology with problems that occur at society. Use STM approach to integrated thematic learning can be done with way activate students during the learning process because during the learning process students faced on various problem. With thus expected students attempted directing all ability possessed well mind.

According to Asy'ari (2006) that the STM approach has its advantages, including: 1) can make learning more meaningful because it is directly related to the

problems that arise in everyday life so that students open their horizons about the role of learning in real life, 2) can link learning with current technological developments, 3) STM can link learning and attitude towards respecting technological products and being responsible for problems that arise in the environment, 4) STM can broaden students' insight into the relationship with other fields of study, 5) STM approach can improve the quality of overall learning, 6) from group activities can foster mutual habits cooperation between students, and 7) the application of an idea can lead to pride in himself that he can play a role or benefit the community and the development of science and technology.

METHOD

This research is a classroom action research using qualitative and quantitative approaches. According to Uno (2012) class action research is research conducted by teachers in their own classrooms through self reflection, with the aim of improving their performance as teachers, so that the learning process can run well, student learning outcomes increase. Classroom Action Research Process with carry out II cycle, where the first cycle consists of 2 meetings. If in the first cycle the indicators observed have not been successful, it will be continued in cycle II. The procedure of research is carried out by planning, implementation of observation and reflection .

RESULTS AND DISCUSSION

Cycle I

Research in the first cycle of meeting 1 was conducted by researchers on Friday, April 28, 2017 with an allocation of 2×35 minutes and in accordance with the agreement of the principal and class teacher. Review class IV curricula and books and other relevant support . The study, investigators carried out, researchers guided by curriculum have, books and other supporting books on the fourth grade. The standard of competence to be achieved in the first cycle of the first meeting on the fourth grade learning that is included in Decree 1 1 about "Understanding the Relationship Between Natural Resources With Environment, Technology and Society". Basic competencies to be achieved in the first cycle of meeting I in class IV learning which is listed in 11.3

about "Explaining the Impact of Material Taking Nature Against Environmental Conservation". Indicators to be achieved in the first cycle of meeting 1 in class IV learning are 11.3.1 Mentioning problems due to natural resource extraction (forest fires), 11.3.2 Explain renewable natural resources (forest fires), 11.3.3 Mention examples of natural resources that can be updated (forest fires), 11.3.4 Mention the impacts of natural resource extraction (forest fires), 11.3.5 Identify actual problems caused by renewed natural resource extraction (forest fires), 11.3.6 Find solutions to overcome problems caused by renewed SDA retrieval (forest fires), 11.3.7 Demonstrate a critical attitude towards the problems caused by renewed natural resource extraction (forest fires), 11.3.8 Make a brief essay on how to overcome problems regarding the results of renewed natural resource extraction (forest fires).

The learning objectives at the planning stage of the first meeting of the first cycle are as follows: 1) With question and answer, students can mention the problem due to the retrieval of updated natural resources (forest fires) correctly, 2) With question and answer, students can explain the meaning of natural resources that are updated correctly, 3) With question and answer, and observe SDA updated media images (forest fires), students can state the meaning of forest fires appropriately, 4) With question and answer, students can mention the impact of updated natural resource extraction (forest fires) correctly, 5) With group discussions, students can identify problems caused by renewed natural resource extraction (forest fires) correctly, 6) With group discussions students can find solutions to correct problems caused by updated natural resource extraction (forest fires) correctly, 7) With discussion groups of students can show critical attitudes towards updated natural resource extraction (forest fires) with n correct, 8) With assignments, students can make a brief essay on how to deal with the problem of renewed natural resource extraction (forest fires) accurately and accurately.

Learning activities that will be carried out in the first cycle of meeting I consist of three activities, namely: the initial activity such as preparing class conditions, praying, checking student attendance, apperception and delivering learning objectives. Kegiatan core like the approach used in this study is event Approach Science Society Technology (STM) with the steps are as follows : (1) Phase Invitations at the beginning of learning students are asked questions by the teacher about the actual problem

regarding SDA, students are asked to observe pictures of updated SDA and question and answer about forest images, tell about the consequences of natural resource extraction, and raise problem SDA is updated based on the article shown. (2) Exploration Phase , at this stage students are divided into several groups and asked to discuss the material provided (3) Solution Phase , at this stage students find solutions and report the results of the discussion to other friends. (4) Application stage , at this stage, students are told to make essays to find out an understanding of the material given . Then the final activities such as concluding learning, giving test questions and praying.

The learning implementation of the first cycle of the 1st meeting was held on Friday, April 28, 2017 which lasted 2 x 35 minutes. Implemented based on planning, the implementation of learning follows the steps of learning using the Community Technology Science (STM) approach, namely:1) Invitational Phase, 2) Exploration Stage 3) Solution Phase 4) Application Phase . For more details, the implementation of this learning can be described as follows: (1) Initial activity, the initial activity of the teacher (researcher) conditions the preparation for learning so that the learning atmosphere becomes more orderly and orderly, the initial activity also invites students to pray together so that the religious values are seen to be planted. Then explain the material to be delivered in the class, (2) Core activities, step-step approach to Science Technology Society (STM) in the core activities as follows: (a) Invitational phase, invitational Phase This is done sequentially on the issue or the actual problem is going on in the community At this stage some students keen in observing images of forest fires on display by the teacher, but there are still some students who have not seriously observe the image as there are students who do not pay attention to the teacher's explanation and there are still students who are still playing in class . In the meditation phase the teacher gives questions to students about the effects of natural resource extraction on forest fires, (b) Exploration phase, in this activity the teacher divides students into 3 groups randomly and students listen to the group division , after the teacher divides each group, students are asked to sit in groups, and the teacher asks the group representatives to take the materials that the teacher has provided, then the teacher distributes the Student Worksheet and explains how it works. Students receive

from the teacher and discuss the actual problems of the article about forest fires and the students are asked to answer the questions raised by their friends and the questions asked by the teacher about the forest fires in the picture, (c) Solution phase, at this stage students find solutions to problems that are discussed and report to other groups then other groups provide responses, and (3) Application stage, at this stage, students use an understanding of the solutions that have been given by friends to discuss and apply it in everyday life and students are asked to make brief essays from the material discussed in the class to find out students' understanding of the material

On the results of observations of participation of the mind whose indicators expressed opinions, it was seen in the first cycle of meeting I that students who scored with criteria were very good (SB) namely expressing opinions according to the material with clear, polite and courageous language as many as 1 student. Students who get grades with good criteria (B) are 5 students. Students who get scores with the Enough criteria (C) are 5 students. Students who get scores with less criteria (K) as much as 1 and students who get scores with the criteria of Once Less (KS) as many as 1 student. Thus it can be obtained value for participation expressing opinion that is 750 with percentage 62% category Enough.

The activity of reflection is carried out collaboratively between the researcher and the observer each time the learning ends. Based on the result of collaboration refers to k's that the implementation of the learning process by using a scientific approach Society Technologies (STM) has been carried out by researchers in accordance with the steps listed in the lesson planning.

Cycle II

Learning in the second cycle of meeting 1 was carried out with the material impact of taking natural materials on the preservation of the environment. Planning in the second cycle is more referring to the results of reflection of the meeting II cycle. In the second cycle the meeting I was held by researchers on Friday, May 5, 2017. In accordance with the 2×35 minute time allocation and in accordance with the agreement of the principal and class teacher. Review class IV curricula and books and other relevant support . Research conducted by researchers, researchers guided the

curriculum, books and other supporting books in class IV. The competency standard that you want to achieve in the second cycle of meeting I in learning namely SK Understanding the relationship between natural resources and the environment, technology, and society. Basic competencies to be achieved in the second cycle first meeting is 11.3 Explain the impact decision regarding conservation of natural materials

The indicators to be achieved in the second cycle of meeting I on learning are: 11.3.1 Mentioning problems due to natural resource extraction can be updated (damage to coral reefs), 11.3.2 Explain renewable natural resources, 11.3.3 Mention the impact of SDA extraction updated (damage to reefs reef), 11.3.5 Identify the actual problems caused by the retrieval of renewed natural resources (damage to coral reefs), 11.3.6 Find solutions to overcome problems caused by renewed natural resource extraction (damage to coral reefs), 11.3.7 Demonstrate critical attitudes towards problems that caused by the retrieval of renewed natural resources (damage to coral reefs), 11.3.8 Make a brief essay on how to solve problems about the consequences of retrieving renewable natural resources (damage to coral reefs).

The learning objectives at the planning stage of the second meeting of cycle 1 are as follows: (1) With question and answer, students can mention the problem due to the retrieval of renewable natural resources (damage to coral reefs) correctly, (2) With questions and answers, students can explain the meaning of S DA which is updated correctly, (3) By observing the image, students can mention the impact of the updated SDA collection (damage to coral reefs) correctly, (4) With group discussions, students can identify the problems caused by the retrieval of renewable natural resources (damage to coral reefs) correctly, (5) With group discussions students can find solutions to overcome problems caused by retrieval updated (damage to coral reefs) correctly, (6) With group discussion students can show a critical attitude towards the renewal of retrieval (damage to coral reefs) correctly, (7) With assignments, students can make a brief essay on how to deal with the problem of retrieving updated SDA (damage to coral reefs) correctly.

Implementation of the second cycle of learning first meeting was held on Friday 5 Mei, 2017, conducted by the planning, the implementation of learning to follow the steps of learning by using approach Science Technology Society (STM). This initial

activity the teacher conditions the class to be more orderly and check the class condition. Next the teacher invites students to pray together after praying the teacher gives apperception by asking questions that were given last Sunday and linking them to the material to be given. After that the teacher conveys the learning objectives to be achieved.

Learning activities in an effort to increase student learning participation are carried out using the Community Technology Science Approach (STM). After the teacher conveys the learning objectives, then the teacher asks students to pay attention to the surrounding environment and the pictures displayed by the teacher in front of the class about damage to coral reefs and their impact on the environment around the students. Below is a description of how students lack focus when instructed by the teacher to observe images of damage to coral reefs displayed by the teacher in front of the class.

This stage of meditation is carried out sequentially about the actual issues or problems that are happening in the community. At this stage some students look happy and enthusiastic in observing the image of the damage to the coral reef displayed in front of the class by the teacher, and students have begun to seriously observe the picture and able to understand the material discussed by the discussion group.

At this stage, students into 3 groups and students listen to the group division . After the teacher divides each group, students are asked to sit in groups, and the teacher asks the group representatives to take materials that have been provided by the teacher, then the teacher distributes Sheets Work Students and explain how it works students receive LKS from the teacher and discuss the actual problems of the article about damage to coral reefs and students are asked to answer questions raised by their friends and questions asked by the teacher about the damage to the coral reef contained in the picture . this stage of participation that can be assessed is labor participation and thought and energy participation, namely working on LKS answering and expressing opinions .

At this stage students find solutions to problems that are discussed and report to other groups then other groups provide responses. At this stage, see the students' understanding of the solutions that have been given by friends to discuss and apply it in everyday life and the teacher asks students to make a brief essay of the problem that has

been solved in the class discussion. Before the learning activity ends, the teacher gives an affirmation of the material that has been discussed in the discussion and provides an opportunity for students to ask questions that have not been understood by students, after conducting question and answer students conclude the learning that has been learned then the teacher concludes the overall learning, then the teacher gives follow-up is the test question, then before going home the teacher asks the class leader to pray the prayer pin

Based on observations made by observers, the observers were class teachers. Mind participation is observed, namely: expressing opinions, asking questions and answering questions. On the indicator expresses the opinions of 8 students who get a score with very good criteria (SB), 4 students get a score with good criteria (B), 1 student gets a value with sufficient criteria (C), and no student gets a value with less criteria (K) and no students get use values with less criteria Once (KS) thus it can be obtained for participation expression value is 1150 with a percentage of 95% is very good category. From the description of the descriptor can be seen an increase in the description of expressing opinions, asking questions, and answering questions, even though there are some people who have not reached the target. Therefore, this research can be said to be successful and not continued for the next meeting according to Purwanto's completeness criteria .

Judging from the learning activities in the second cycle of the first meeting, researchers have conducted research to the fullest. The learning process has gone very well, conveying the learning objectives to be achieved are in accordance with the learning indicators and have provided reinforcement for students who ask, and have given awards to all students who can answer questions, so that all students get awards, in the second cycle of the meeting This researcher has more leverage in guiding and giving motivation to students. So, students have dared to express their opinions and students are also no longer ashamed in asking questions and answering questions.

CONCLUSIONS

Conclusions from the results of the study increased the participation of thematic learning minds by using the Science Technology Society (STM) approach for fourth grade students of Kalumbuk SDN 24 Kota Padang that there was an increase in mind participation using the Community Science Science (STM) approach in the first cycle of meeting I obtained a percentage of 62, 7% with the Enough category and the first cycle of the second meeting obtained a percentage of 77.3% with the Good category, increasing in the second cycle with a percentage of 90% with the Very Good category. Based on the value of the participation, it can be said that the use of the Community Technology Science (STM) approach can increase students' mind participation.

REFERENCES

- Asy'ari. 2006. Penerapan Pendekatan Sains Teknologi Masyarakat Dalam Pembelajaran IPA di SD. Jakarta: Depdiknas.
- Hermon, D and Y. Dalim. 2005. Penggunaan Media Audio Visual untuk Meningkatkan Kreatifitas Belajar. *Jurnal Pembelajaran*. 28 (3) 266-276
- Hermon, D and Y. Dalim. 2006. Penerapan Kuliah Lapangan untuk Meningkatkan Hasil Belajar Mahasiswa. *Forum Pendidikan*. 28 (3) 156-161
- Hermon, D. 2015. Arah Kebijakan Keberlanjutan Pendidikan 10 Tahun Pasca Bencana Tsunami di Kabupaten Aceh Jaya Provinsi Aceh. Seminar Nasional Geografi. Master Program of Geography Education. Universitas Negeri Padang
- Prastowo. 2017. Menyusun RPP tematik terpadu implementasi kurikulum 2013 untuk SD/MI. Jakarta: Presmadenita
- Taufina. 2013. Studi Penerapan Tematik Terpadu Dalam Rangka Implementasi Kurikulum 2013 Di Sd Kabupaten Lima Puluh Kota. PGSD FIP UNP.
- Uno, H. B. 2012. Menjadi Peneliti PTK yang Profesional. Jakarta: Sinar Grafika Offset.
- Yanti, F. 2018. Landasan Pembelajaran Sains Terintegasi (Terpadu) Untuk Level Dasar. Jakarta: Tabing Padang Sukabina Press.