

APPLICATION OF DISTANCE LEARNING THROUGH LEARNING VIDEO MEDIA TO INCREASE STUDENT MATHEMATICS LEARNING OUTCOMES CLASS VI SD NEGERI 022 RAMBAH ACADEMIC YEAR 2020/2021

Hasrijal¹, Nur Arifin Adityo², Elyandri Prasiwiningrum³

Sekolah Tinggi Keguruan dan Ilmu Pendidikan Rokania

hasrijalpku@gmail.com, nurarifinadityo@gmail.com, epراسiwiningrum@gmail.com

Abstract, *This study aims to determine the process of implementing distance learning with learning video media and improving mathematics learning outcomes for integer material. The research subjects were sixth grade students of SD Negeri 022 Rambah. The research subjects were 28 students consisting of 14 male students and 14 female students. The type of research used is Classroom Action Research (CAR) with Learning Video media. The data in this study are observations, documentation and tests. Research instrument in the form of observation sheets and test questions. Data analysis used qualitative description technique. Based on observations, it was found that in the process of learning mathematics, especially distance learning, students' learning motivation decreased. This resulted in student learning outcomes are not optimal, so teachers need to conduct Classroom Action Research. This Classroom Action Research is one of the efforts to improve mathematics learning outcomes. Based on the results of data analysis and discussion, it was concluded that the learning outcomes of mathematics in distance learning with learning video media increased. Based on the results of the study, it can be concluded that there is an increase in mathematics learning outcomes which is marked by an increase in the achievement of the KKM score, in the first cycle students who reach the KKM as much as 64.29% increase to 89.29% in the second cycle. Student activity and motivation also increased.*

Keywords : learning outcomes, Video Media.

I. INTRODUCTION

Mathematics is a science that underlies the development of modern technology, has an important role in various disciplines and the development of human resources. In order to master and develop technology in the future, it is necessary to have a strong mastery of mathematics from an early age. Mathematical concepts learned in elementary school (SD) are the basis for the application of concepts at the next level. In order for students to understand and be skilled at using various

mathematical concepts, meaningful learning is needed. Meaningful learning will be created if the implementation of learning in elementary schools is able to organize and lay the basis of logical, critical, and careful reasoning for students. This can help clarify problems in everyday life and communicate with numbers and symbols, as well as further develop a logical, critical, careful, disciplined, open, optimistic, and respectful attitude towards mathematics.

The Ministry of Education and Culture through Circular No. 4 of 2020 contains directions regarding learning from home regarding distance learning. Based on the results of interviews with several students, information was obtained that in distance learning (a) some students still feel afraid to take part in mathematics learning (b) the method used by the teacher is to send materials and assignments. Some students admitted that they were bored with tasks that were only theoretical.

Learning media are facilities or instruments that encourage the effectiveness and efficiency of learning activities, especially when students are required to study from home during the corona virus (COVID 19) pandemic. , feelings, concerns, and interests and concerns of students in such a way that the learning process occurs. (Sadiman, 2009: 7) The use of adaptive and quality learning media is one way to create a pleasant learning atmosphere and improve student learning outcomes. Adaptive learning videos are expected to be able to attract the attention of students in understanding concepts and subject matter, especially mathematics. For this reason, teachers need to increase creativity and innovation in learning through Classroom Action Research.

Based on observations, it is shown that the ability to absorb mathematics

subject matter in integers is still low. This can be seen from the number of students who have not reached the Minimum Completeness Criteria that have been set by the school, which is 75 and the average grade score is still low. Of the 28 students who completed by achieving a value greater than or equal to the KKM as many as 18 students or 64.29% with an average grade of 74.11. Knowing the results of learning tests for students in grade VI proves that mathematics learning outcomes are still low. Especially during distance learning today, teachers have difficulty instilling the concept of integers and arithmetic operations, if they only use the method of sending materials and assignments. As stated by Dimiyati and Mujiono (2013: 3) learning outcomes are the result of an interaction between acts of learning and acts of teaching. From the teacher's perspective, the act of teaching ends with the process of evaluating learning outcomes. From the student's perspective, learning outcomes are the end of the cutting process and the culmination of the learning process.

Learning videos are one way to solve this problem. Learning videos made by teachers can represent the presence of teachers in class. By listening to the teacher's voice, it is hoped that students will understand the material more clearly. Learning videos can be viewed repeatedly, videos also encourage and increase

students' motivation to see them (Arsyad, 2011). For students who have the ability to learn faster, they can shorten or slow down the playback time. Likewise, students who do not understand the material can repeat certain parts as needed. Purwanto (2014) explains that learning is a process within individuals who interact with the environment to get changes in their behavior. According to Slameto (2010) "learning is a process of effort by a person to obtain a new behavior change as a whole, as a result of his own experience in interaction with his environment. Based on these notions of learning, it can be concluded that learning is a process that occurs in everyone throughout his life and changes in behavior as a result of individual experience.

Learning outcomes are abilities that students have after they receive their learning experiences. After a learning process ends, students get a learning outcome. Learning outcomes are very important in the learning process. The main purpose of the learning process is learning outcomes. Learning outcomes are the results achieved in the form of numbers or scores after being given the final learning result test. The abilities possessed by students after students receive the learning experience are abilities, skills, and habits, knowledge and understanding, attitudes and ideals that are implemented in learning.

Researchers use learning videos during distance learning so that they can make adjustments and increase their creativity. Learning videos are used to convey learning material to make it easier to understand and understand according to the interests and characteristics of students. Mathematics learning videos can be used to introduce new mathematical concepts and the process or steps of solving problems in mathematics. Mathematics is a science that deals with abstract ideas/concepts arranged hierarchically and deductively reasoning. According to Heruman (2013: 2) learning mathematics in elementary schools through 3 stages, namely planting basic concepts, understanding concepts and developing skills. Learning videos provide opportunities for students to repeat or stop the video in order to better understand the material. Students can also skip parts they already understand. Therefore, students can accelerate the learning process according to their level of understanding. Expected

Distance learning using learning videos will instill basic concepts, understand concepts and improve skills and increase enthusiasm for learning. The results obtained by students after students carry out learning and learning activities that involve cognitive, affective, and psychomotor aspects, which are expressed in numbers, letters or sentences will also increase.

Based on the above background, the researchers are interested in conducting Classroom Action Research with the title "APPLICATION OF DISTANCE LEARNING THROUGH LEARNING VIDEO MEDIA TO INCREASE STUDENT MATHEMATICS LEARNING OUTCOMES CLASS VI SD NEGERI 022 RAMBAH ACADEMIC YEAR 2020/2021

II. RESEARCH METHODS

This research was conducted at SD Negeri 022 Rambah class VI, totaling 28 students, consisting of 14 male students and 14 students woman. This Classroom Action Research is carried out in a virtual classroom through the Google Class Room by the class teacher himself and his collaborators gradually in the form of implementing certain actions so that there is a change in the improvement of the learning process.

In this study using the Kemmis and Taggart Spiral model which consists of two cycles and each cycle uses four components of action, namely: planning (planning), action ((implementing actions), observation or observation, and reflection (reflection) in a spiral that interrelated.

Arikunto (2012) said that planning activities include (1) problem identification, (2) problem formulation and analysis of the causes of problems, and (3) intervention

development (action/solution). In this study, the action plan is to improve distance learning on integer material. Action (intervention) is carried out to fix the problem (Arikunto, 2012), the activities carried out are with collaborators carrying out the distance learning process for integer material with learning video media.

Reflection is an activity to review critically about changes that occur (a) in students, (b) classroom atmosphere, and (c) teachers (Arikunto, 2012). Reflection in this study was carried out to examine whether the actions taken had been successful or not, so that the next action could be determined by the form of the instrument used to facilitate the acquisition of research data, namely the activity observation sheet that observed teachers who were teaching and students who were learning by using process monitoring guidelines. teaching and learning that has been prepared. To measure student learning outcomes, the test results of learning outcomes are used.

Data collection techniques use observation techniques carried out by collaborators through activities in Whats App, Google Class Room and Google Meet, as well as documentation of learning outcomes at the end of each cycle. The data that has been collected is analyzed according to with the aim in CAR to prove the truth of the hypothesis. Whether or not these allegations are proven through data

obtained from the field. It is hoped that the data analysis can improve the quality of learning even through distance learning.

III. RESEARCH RESULTS AND DISCUSSION

Cycle I activities include planning, implementation, observation, and reflection. Planning activities in the first cycle include observation activities, preliminary studies on student achievement, planning syllabus and lesson plans, preparing teaching materials in the form of learning videos, student worksheets (LKS) and assessment instruments. Learning scenarios were discussed with collaborators to get input and suggestions and to set the focus of observation.

The activities of the first meeting of cycle I started with planning activities including preparing lesson plans, preparing collaboration pattern instruments, preparing test sheets for cycle I, observation sheets, preparing student worksheets, and learning videos that will be used in distance learning. The teacher greets students through the whatsapp group for class VI students and google classroom, greets, leads prayers, and attends student attendance using the zoho forms application. The teacher provides information to students about the goals to be achieved from this distance learning process. The teacher provides information to students about the learning model and

method used. The teacher sends learning videos via whatsapp group and google classroom. Students watch the video carefully. The teacher provides information on the opportunity for students to ask questions through whatsapp groups related to the material in the learning video. Students work on Student Worksheets. After completing the work, students take photos of their work and send it via Google Classroom before the time limit given. The teacher checks the students' work and provides comments on the students' work.

The results of teacher activity observations obtained from the teacher activity observation sheet in the first cycle consisting of 22 indicators, collaborators gave an average score of 77.27% and at the second meeting on 1 September 2020 an average score of 81.81% so teachers need to improve learning innovation. While the results of observing student activities in the first cycle were 70% at the first meeting and 80% at the second meeting, so teachers need to stimulate students to be more active in the learning process. The results of the Achievement Test after the action of cycle 1 the average score of students reached 74.11 while the percentage of completeness of students who reached the KKM was 64.29%. or 18 students who could reach the KKM (75) out of 28 students in the class. Based on these data, there was an increase from meetings 1 and 2, and 92.85% of

students gave a very good response to the use of learning videos in distance learning.

Planning activities in cycle II are improving the results of cycle I including observation activities, planning lesson plans, preparing teaching materials in the form of learning videos, student worksheets (LKS) and assessment instruments. Learning scenarios were discussed with collaborators to get input and suggestions, and to set the focus of observation. The implementation of the action in cycle II was attended by 28 students. The teacher sends a more communicative learning video. In learning activities communication is very necessary. In certain situations, communication using the media is a process of conveying thoughts or feelings by one person to another by using symbols that are meaningful to both parties. Communication can change the attitude or behavior of a person or a number of people. From the communication is expected to produce certain effects (Effendi, 2003).

The teacher facilitates google meet for two-way learning communication. Students watch the video carefully. Students prepare the tools and materials needed in learning according to the teacher's directions at the previous meeting. Students work on Student Worksheet questions. After the specified work deadline is completed, students take photos of their work and send them via Google Classroom.

The teacher checks the students' work and provides comments on the students' work. The teacher gives a final action test. With a certain time limit students work on and send their work.

The results of observations of teacher activities obtained from the observation sheet of teacher activities in cycle II which consisted of 22 indicators, the collaborator gave an average score of 100% which means the teacher has made learning innovations based on the direction of the collaborator. While the results of observing student activities in the second cycle both at the first and second meetings 90%, there has been an increase compared to the first cycle. The results of the Achievement Test after the second cycle of action the average value of students reached 85.89 while the percentage of students who achieved KKM was 89 29%. or 25 students from 28 students in the class can reach the KKM (75). Based on these data, there was an increase from meetings 1 and 2, and all students gave a very good response to the use of learning videos in distance learning.

Distance learning activities with learning video media is one method that can be applied to provide easier understanding to students. This means that it is easier for students to understand the material because of the presence of the teacher through learning videos so they don't feel bored quickly and it is easier to understand math

subject matter. Rusman (2012) revealed some of the advantages of video media, namely: video can provide messages that can be received more evenly by students, video is very good for explaining a process, overcoming space and time limitations, more realistic and can be repeated or stopped as needed, and gives a deep impression, which can affect student attitudes.

The learning outcomes of each cycle have increased. This shows that the criteria in this study have been achieved so that it can be said that the research is successful. The results of this study are in accordance with research conducted by Suryansah (2016) which states that video is one of the important sources in providing information or knowledge that is not yet understood by students. Video is able to provide information that can be observed directly by students. The results of student observations will increase their knowledge and improve students' cognitive learning outcomes.

Data on improving learning outcomes from each cycle shows the results of the test before the action, the test after the first cycle of action and the test after the second cycle of action in the following graph:

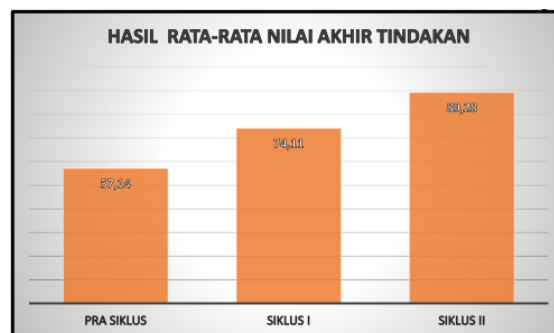


Figure 1. Graph of the average results of the final pre-cycle, cycle I, and cycle II

In general, the percentage of students who achieved the Minimum Completeness Criteria (KKM) also increased. In the first cycle of the KKM achievement, it can be seen that as many as 18 students out of 28 students reached the KKM or 64.29%. In the second cycle the KKM achievement can be seen that as many as 25 students from 28 students reach the KKM or as much as 89.29%. The percentage of students who achieved the minimum completeness criteria from cycle I and cycle II increased, as shown in the following graph:



Figure 2. Graph of Achievement of KKM Student Learning Outcomes

With the achievement of the success criteria in this second cycle research, the researcher decided to stop the classroom action research. Improving mathematics learning outcomes through distance learning with instructional video media for grade VI students of SD Negeri Rambah for the 2020/2021 academic year provides tangible results.

IV. CONCLUSION

Based on the results of the research and analysis of the results described above, it can be concluded that distance learning learning video media can improve mathematics learning outcomes in grade VI students of SD Negeri Rambah for the 2020/2021 school year. The indicator of research success was exceeded, this can be seen in the first cycle of students who were able to achieve the KKM as much as 64.29% and in the second cycle the results increased to 89.29%. The set value of 75 has been exceeded. The activities of teachers and students in learning at least good are also achieved. Students gave a good response to distance learning learning video media was achieved.

Based on the author's experience in distance learning with learning video media, it is able to improve mathematics learning outcomes so it would be nice for fellow teachers to try to apply it. How to

make learning videos is also quite easy and cheap. Learning videos are able to present teachers in virtual classrooms. For students who are still experiencing material difficulties, the learning video playback can be played over and over again. For students who have excess speed in learning, video playback can be arranged as needed. With learning videos, students become more active in learning.

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