

The Improving Student Learning Outcomes through Online Learning Video Media in the Era of Covid-19 Pandemic

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Abstract

The root of the problem of this research is the lack of interest in student learning during the COVID-19 pandemic which resulted in low student learning outcomes. The purpose of this study was to see the improvement of student learning outcomes during online learning by using learning videos on a two-variable linear equation system material. The type of research used in this research is classroom action research which was carried out at MTS Negeri 1 Simalungun. This research was conducted in two cycles with each action including planning, implementing, observing and reflecting. To see the learning outcomes used tests in cycles I and II. The results of the study show that learning video media on the material of a two-variable linear equation system in the Covid-19 Pandemic Era can improve learning outcomes and minimum learning mastery of students in class VIII-5 MTS Negeri 1 Simalungun for the 2020/2021 academic year". The completeness of student learning outcomes on the SPLDV material after being taught using learning video media when the initial condition (23.52%) increased to 52.94%. Furthermore, there was an increase in student learning outcomes by 23.53% with a mastery level of learning obtained around 76.47%. This result is in line with what is expected, namely 75% of students complete.

Keywords

online learning; learning media; student learning outcomes



I. Introduction

Education is the most important component for a country, Dumciuviene (2015) said, "Future growth of the country will depend on knowledge. Education is one way to improve and develop the quality of human resources in Indonesia (Adiyono, 2021). This deficiency arises due to the lack of attention of educational personnel printing institutions that pay attention to these skills (Waluyandi, 2020). Pohan (2020) states that at school, from elementary to secondary school or even college, students undergo, practice, and experience the learning process of various knowledge and skills. Learning is essentially a cognitive process that has the support of psychomotor functions (Arsani, 2020). In this case more jobs will require higher education qualification". This implies that the future growth of a country depends on knowledge. In this case, many jobs will require higher educational qualifications, so the government is obliged to make various efforts to improve the quality of education. But at the end of early 2019, the whole world was shocked by an outbreak of a deadly disease known as Covid-19 or corona virus. Indonesia is also one of the countries affected by this epidemic.

To overcome the spread of this virus, the Indonesian government has taken various steps, including locking and physical distancing. This has an impact on everyone's

activities, where everyone has to keep their distance from other people and avoid gatherings. This means that every activity must be done from home. The world of education also feels the impact of this policy, where every level of education is not allowed to conduct face-to-face learning in schools. Online learning is technology-based learning that can be accessed remotely using online media such as the internet. In practice, this online learning requires devices to access it such as cellphones, laptops, computers and so on. This online learning system uses many online applications such as Google Meet, Google Classroom and so on. This online learning can also be done using social media such as whatsapp.

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Mathematics as a basic of science or basic knowledge needed by students to support their learning success in pursuing higher education. Even mathematics is needed by everyone in everyday life. Based on the observations and experiences of researchers, mathematics becomes its own difficulties and challenges for students, when online learning, for example, students have limited space for interaction with teachers, objects studied in mathematics have abstract patterns and many formulas are used in mathematics. This will cause students' learning interest to decrease, the level of concept understanding is low so that it will cause low learning outcomes obtained.

When the researchers conducted online/online learning activities in class VIII-5 MTS Negeri 1 Simalungun, the researchers found that during face-to-face learning, students were free to ask questions about their difficulties in completing the activity sheet. However, in online learning, students feel they do not have the space to ask questions about the stages of completion on the activity sheet provided. Lack of opportunity makes it difficult for students to solve the problems presented. The difficulties experienced by students when learning online cause low mathematics learning outcomes. The researcher once interviewed one of the students who initially took part in online learning, but the student preferred to take offline learning (handout). This is due to the difficulty of the child in understanding the LAS given and the teacher's written explanation. Khurriyati et al., (2021) also stated that online learning still poses problems. Online learning results in a shift in roles between teachers and parents during online learning. Submission of material online cannot be understood by all students. In addition, teachers have difficulty controlling the learning atmosphere, this is due to limitations in the virtual space (Asmuni, 2020; Fifit Humairoh, Achmad Supriyanto, 2016). The limitations of mastery of information technology are experienced by teachers and students, this can be seen from the teachers who are not able to use various online learning media. On the other hand, this can be seen from the teachers who are unable to use various online learning media. In addition, expensive technological devices are also a problem in the implementation of online learning Krisdiana et al., (2014).

II. Review of Literature

2.1 Online Learning

According to Ghirardini in Kartika (2018:27) "online provides effective learning methods, such as practicing with related feedback, combining collaborative activities with

independent learning, personalizing learning based on student needs and using simulations and games". Meanwhile, according to Permendikbud No. 109/2013 distance education is a teaching and learning process carried out remotely through the use of various communication media. With the advancement of information and communication technology, it brings changes and progress in various sectors, especially in the field of education is very important and is able to provide convenience to teachers and students in the learning process. Online learning is a learning system that is carried out not face to face, but uses a platform that can help the teaching and learning process that is carried out even though it is far away. The purpose of online learning is to provide quality learning services in a massive and open network to reach more and more enthusiasts of study space Sofyana & Abdul (2019:82).

2.2 Instructional Media

Learning media are everything that can be used to channel messages from the sender to the recipient so as to stimulate the thoughts, feelings, attention, and interests and willingness of students in such a way that the learning process occurs in order to achieve learning objectives effectively, Hayati et al (2017). The right media is used to assist teachers in improving observing learning activities, one of which is by using audiovisual media. The use of this media can optimize student learning outcomes because this media can be seen and heard and students can focus more on the learning delivered by the teacher.

The following are the benefits of learning media in the mathematics learning process according to Arsyad (2011). a) Clarify the presentation of the material so that it is not too verbal. Mathematical concepts that use too many words can be represented using symbols, so that students can easily understand the concept. b) Using appropriate, correct, and varied learning media will help overcome the passive attitude of students. In this case, the learning media is useful for generating students' learning motivation. c) Allows students to learn independently, can interact directly with the environment like a real one. d) Learning media can also provide the same stimulus to students, giving rise to the same perception.

2.3 Learning Outcomes

Learning outcomes are often called learning achievements, the word achievement comes from the Dutch *prestatie*, then in Indonesian it is called achievement, defined as the result of effort. Achievement is widely used in various fields and is defined as a person's ability, skill, attitude in getting things done. Learning outcomes are often used as a measure to find out how far someone has mastered the material being taught. Learning outcomes come from two words, namely "results" and "learning". Learning outcomes have an important role in the learning process. According to Hamalik (2004: 31) learning outcomes are patterns of actions, values, knowledge, attitudes, appreciation, abilities, and skills.

According to Sudjana (2009: 3) "defining student learning outcomes is essentially a change in behavior as a result of learning in a broader sense covering the cognitive, affective and psychomotor fields". According to Permendikbud Number 104 of 2014, learning completeness is the minimum level of achievement of attitude competence, knowledge competence and skill competence including mastery of substance mastery and mastery of learning in the context of the learning period.

III. Research Methods

This classroom action research was conducted at MTS Negeri 1 Simalungun. This research was conducted in October 2020 for the first cycle and November 2020 for the second cycle. The students who were the subjects of the research were students of class VIII-5 MTS Negei 1 Simalungun in the odd semester of 2020/2021 who took part in online learning with a total of 17 students consisting of 10 girls and 7 boys. This classroom action research is designed in two cycles. Each cycle has four stages, namely planning, action, observation and reflection. The design of the stages of this research is shown in the following figure:



Figure 1. The Action Research Cycle Developed by Kemmis and Taggart (in Arikunto, 2007)

IV. Results and Discussion

4.1 Results

From the results of learning actions using learning video media in class VIII-B in the first cycle, there was an increase in student learning outcomes by 29.42% with a learning completeness level of 52.94%. This result is not in accordance with what is expected, namely 75% of students complete, so it is necessary to improve learning that allows students to maximize learning outcomes in solving problems on the material of a two-variable Linear Equation System.

Table 1. Grade VIII-5 Students in Before Action (Preliminary Test)

Student Value	Frequency
0	
5	2
20	2
35	2
50	2
60	3
65	2
70	4
Amount	17

In addition, in the implementation of these actions there are still some weaknesses, including there are still students who do not understand the material being taught, the

researchers themselves also feel that the actions that have been taken have not been maximized. During the action in the first cycle, the researcher also found the weaknesses experienced including, the researcher gave less examples, did not build a good response to the problems asked in the study group. To improve the weaknesses and maintain and increase the success that has been achieved in cycle I, the implementation of cycle II is planned: 1. Researchers present several examples with alternative solutions that are better understood by students, 2. Researchers observe question messages in whatsapp groups and respond clearly, 3.

Furthermore, learning actions were carried out using learning video media in cycle II. In the second cycle there was an increase in student learning outcomes by 23.53% with the level of complete learning obtained around 76.47%. This result is in line with what is expected, namely 75% of students complete, so there is no need to do the next cycle in solving problems on the material System of linear equations of two variables. 19 on the material for the System of Linear Equations of Two Variables in class VIII-5 MTS Negeri Simalungun for the 2020/2021 school year is proven.

4.2 Discussion

In online learning activities during this pandemic era, students tend to be passive in terms of asking questions related to the completion of LAS. Students also cannot absorb the concepts conveyed by the teacher, where students who are left behind in doing LAS are no longer participating in interactive learning. In the initial observations, the material distinguishes linear equations of one variable and two variables and then performs algebraic arithmetic operations, it is seen that students who send questions to the WhatsApp group have the same problem. Learning outcomes in the initial conditions were obtained from daily values at the first meeting, namely determining the set of solutions to linear equations of one variable.

The findings based on the initial test are: 1. Students cannot perform arithmetic operations in algebraic forms, 2. Students cannot determine the set of solutions, 3. Students cannot convert questions into mathematical form. The learning outcomes of class VIII-5 students before the action was taken were still low. This can be seen from the results of the initial test on the material of a two-variable linear equation system. Of the 17 students participating in online/online learning, only 4 students (23.52%) achieved complete learning, 13 students (76.47%) did not.

Based on the results of the study, it can be concluded that the use of learning video media on the material of a two-variable linear equation system in the Covid-19 Pandemic Era can improve learning outcomes and minimum learning mastery of students in class VIII-5 MTS Negeri 1 Simalungun for the 2020/2021 academic year". The learning outcomes of students on SPLDV material when the initial conditions were (23.52%) became 52.94% in the first cycle after being taught using learning video media. In the second cycle, the number of students who completed this material was 13 students with a percentage of 76.47%. This is in line with research conducted by Ridha (2021) that the implementation of learning during the Covid-19 pandemic using video learning media in elementary schools has gone well. Sihombing (2020) state that Covid-19 pandemic caused everyone to behave beyond normal limits as usual. The outbreak of this virus has an impact especially on the economy of a nation and Globally (Ningrum, 2020). The problems posed by the Covid-19 pandemic which have become a global problem have the potential to trigger a new social order or reconstruction (Bara, 2021).

V. Conclusion

Based on the results of the research and discussion, it can be concluded that the use of learning video media in the material System of linear equations of two variables in the Covid-19 Pandemic Era can improve learning outcomes and minimum learning mastery of students in class VIII-5 MTS Negeri Simalungun for the 2020/2021 academic year". The learning outcomes of students on SPLDV material when the initial conditions were (23.52%) became 52.94% in the first cycle after being taught using learning video media. In the second cycle, the number of students who completed this material was 13 students with a percentage of 76.47%.

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