USE OF LEARNING VIDEO MEDIA ON HUMAN AND ENVIRONMENTAL SUBTHEMA

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Abstract. This study aims to determine the effect of learning outcomes and improve learning outcomes of human and environmental sub-themes through instructional video media. The method used is a quasi experiment, carried out on students of class VA and VB SDN Gegerbitung Sukabumi. The analysis technique used is the analysis prerequisite test which includes a normality test, a homogeneity test, then a research hypothesis test is performed using the t test. The results showed that in the normality test both samples were normally distributed because of the L value $\leq$ Ltable. Then the homogeneity test obtained nilai2 count value of $0.26 \leq x2$table 3,841, then: There is an influence of learning outcomes of human and environmental subthemes through instructional video media obtained an average value of N-Gain 61 with completeness of learning outcomes 94.44%, and conventional media obtained an average value of 42 N-Gain with completeness learning outcomes 63.15%. And the results of testing the hypothesis states that H0 is rejected and Ha is accepted because tcount (5.29)> ttable (1.99346). Based on the results of the research above, it can be concluded that there is an influence of the learning outcomes of human and environmental sub-themes through instructional video media.

Keywords: learning outcomes; sub themes human and environment; media video learning

I. INTRODUCTION

Learning is a process that occurs in every human being, learning is said to be a complex thing because learning is a process. The process occurs because of the interaction between a person and his environment. Interaction in the classroom occurs between the teacher as an educator and students as students. A teacher according to Agustiningsih **[1]** is not only required to make the learning atmosphere comfortable and interesting, but also must be able to create learning media to facilitate students in understanding the material delivered by the teacher.

The use of instructional media can improve students' understanding of the material delivered by the teacher. Learning Video Media is one of the media that can make students more active, creative and enthusiastic when the learning process takes place in class.

The results of preliminary observations found that the use of media in Gegerbitung State Primary Schools is still very simple, only using conventional media or images contained in textbooks. The impact that occurs makes students become bored, and less enthusiastic so they become less interested in the learning process. Based on the results of interviews with the fifth grade teacher of SD Negeri Gegerbitung, Sukabumi District, which was held on October 10, 2018, it was obtained that student learning outcomes in the material Sub-topic Human and Environmental, Minimum completeness Criteria (KKM) determined by the teacher was 70, it is known that in class V with a total of 74 students, students who completed were 26 (35.13%) students, while students who were incomplete 48 (64.87%) students. The use of image media that is too often makes students less understanding. This condition is the same as the problem in Tasmalina & Prabowo's research

[2] that the teacher's explanation and description of a book with a picture that is not moving is not enough to better understand the lesson. Therefore learning will be more interesting if you use media. One of the appropriate themes using video media is in the sub-theme Human and Environment can be used Learning Media Media with the aim of making it easier for students to understand learning material so that students are expected to achieve the specified KKM targets.

Learning outcomes are the application of the objectives to be achieved such as understanding the material. Learning outcomes are needed to determine the extent of students' understanding of the material that has been obtained. The concept of learning outcomes is stated by Susanto, **[3]** learning outcomes, namely changes that occur in students, both concerning cognitive, affective, and psychomotor aspects as a result of learning activities. One of the learning outcomes to be achieved maximally in this study, namely the Subtema of Humans and the Environment in learning 2 which is one of the subthemes there are subjects of Natural Sciences, Indonesian Language and SBdP, in learning 2 discussing material about the water cycle and its impact on events on earth and the survival of living things, describe the sequence of events or actions contained in nonfiction texts and understand the scale.

Furthermore, the concept of learning outcomes above was also raised by Dimyati & Mudijiono **[4]** learning outcomes are the results shown from an interaction of learning, and usually indicated by the test scores given by the teacher. Meanwhile Sudjana **[5]** divides learning outcomes into three domains, namely the cognitive, affective, and psychomotor domains. 1) Cognitive Domain, with regard to intellectual learning outcomes consisting of six aspects, namely knowledge and memory, understanding,

application, analysis, synthesis and evaluation. 2) Afeltif realm, with regard to attitudes and values.

The description of the concepts or theories above, can be synthesized that the learning outcome is a student's success in the learning process by achieving the targets set by the educator which includes cognitive, affective, and psychomotor aspects.

Improved learning outcomes can be obtained with the help of the use of learning media. The learning media used, of course, must be in accordance with the material to be conveyed. According to Susilana and Riyana **[6]** instructional video media is a medium that presents audio and visual messages that contain learning messages that contain concepts, principles, procedures, theories of application of knowledge to help understanding of a learning material. Sadiman **[7]** states the video is a Learning Video Media that displays images and sound. The message presented can be in the form of facts (events, important events, news) or fictitious (such as stories), can be informative, educative or instructional. Meanwhile, according to Haryoko [8] Video can present information, explain the process, explain complex concepts, teach skills, shorten or extend time, and influence attitudes. Video or audio visual media is a medium for delivering information that has the characteristics of audio (sound) visual (picture), this type of media has a better ability, because it has these two characteristics.

The opinions above, can be synthesized that audio-visual video media is a type of learning media, video media is very helpful in conveying material that is difficult to convey and difficult for students to understand

II. RESEARCH METHODS

The study was conducted in May 2019 with the method used was quasi-experimental. The quasi-experimental research design that the author has carefully has two variables, namely instructional video media (X). While the dependent variable (Y) is the student learning outcomes of human and environmental subthemes. The population in this study amounted to 74 students in classes VA and VB with a sample used by 30 students in class VI A SDN Gegerbitung Gegerbitung District Sukabumi Regency 2018/2019 school year. The technique used is the provision of pretest and posttest in the treatment class and control class. Pretest and posttest contain 24 multiple choice questions about human and environmental subthemes in learning 2 which if the correct answer gets a value of 1 and if one gets a value of 0. The question has been validated with a reliability coefficient of 0.883 (reliable). Difficulty level of questions: 2 difficult questions, 15 medium questions and 11 easy questions while distinguishing power: 4 bad questions, 14 enough questions, 10 good questions. The learning outcomes data are then analyzed statistically descriptive and inferential.

III. RESULTS AND DISCUSSION

The description of the results of the study was grouped into two parts, namely the learning outcomes of the human subthema and the learning environment 2 in the experimental group using instructional video media and in the control group using conventional media. The number of data sources is 74 respondents. The recapitulation of N-Gain calculation and descriptive statistics can be seen in the table 1.

Table 1 Descriptive Statistics of Student Learning Outcomes in the Subtema of Humans and the Environment.

Element of Statistics	experimental class	control class (conventional class)
Maximum Score	84	71
Minimum Score	21	12
Score Range	63	59
Average	61,75	42,55
Median	62,3	43,7
Mode	59	51,5
Total Score	2205	1586
Number of Respondents	36	38

Table 1 above shows that the learning outcomes of students in the human and environmental subthemes undergo a change in value that is quite different from using instructional video media while conventional media has an average N-Gain score that is not too high. The study continued with the analysis prerequisite test:

1. Normality Test. Normality test is used to prove whether the population is normally distributed or not so that it can be used in parametric statistics (inferential statistics).

Table 2 Normality Test Results

No	Treatment group	L_{count}	L_{table}	Conclusion
1	Learning outcomes in human subthemes and learning environment 2 through instructional video media	0,121	0,148	Distributed Normal
2	Learning outcomes in human subthemes and learning environment 2 through conventional media	0,086	0,144	Distributed Normal

Table 2 above shows the results of normality tests in the experimental and control classes normally distributed. Thus it can be done

2. Homogeneity Test Variant Homogeneity test aims to determine whether the variance of the three groups are homogeneous or not. After calculating the homogeneity of N-Gain and chi squared data, the homogeneity calculation results are obtained for student learning outcomes in human and environmental subthemes. The value of $x2$calculated by 0.26 and x2 table of 3.841, it can be seen that $x2$calculated <x2 table using α = 0.05

(5%). It can be concluded that the distribution of variance comes from homogeneous groups.

3. Hypothesis Testing The next step is to calculate the t test at a significant level of 5% or (0.05), then in the two-way test $\alpha\ 2 = 0,\ 05\ 2 = 0.025$. a. T Test Results and Average NGain Values of Learning Video Media Media with Conventional Media. The average data of N-Gain group of learning video media with conventional media then the results of t-test results as in the table 3.

Table 3 t Test Results and Average N-Gain Value of Learning Video Media and Conventional Media.

Class Group	N	Dk	N-Gain	t_{count}	t_{table}
Learning Video Media	36		61		
		72		5,29	1,993
Conventional Media	38		42		

Table 3 shows the acquisition of tcount of 5.29 with dk (degrees of freedom) = (n1 + n2-2), then the table obtained at a significant level α 2 = 0.05 2 = 0.025 equal to 1.996. Therefore, obtained tcount <ttable (5.29 <1.99346), the results of the study are H0 rejected and Ha (alternative hypothesis) is accepted. So it can be concluded that there is an effect of learning outcomes on human subtheme and learning environment 2 between students who are treated using the video learning media and students who are treated using conventional media.

The results showed the acquisition of an average score of N-Gain learning outcomes in human subthemes and learning environment 2 between the two study samples, obtained significant differences differing from each other. Based on the average value of the N-Gain of the learning group Video Learning Media and Conventional Media of 61 and 42. After normality and homogeneity tests, the two samples were stated to be normally distributed and have initial or homogeneous abilities so that research can be done on both samples. This research was conducted for 2 days 1 meeting for each class. Learning in the experimental class is done using instructional video media on human subthemes and learning environments 2 Material Water Cycle, Non-Fiction Fiction and SBdP. The video shown on the Water Cycle material is the process of the water cycle containing a video showing the stages of the water cycle in detail, the impact after the water cycle and various kinds of water cycles. In Non-Fiction Fiction material shows an animated learning video understanding non-fiction fiction stories interestingly, and provides audio-visual learning of examples of fiction and non-fiction stories. Furthermore, in SBdP learning subjects, displaying song lyric videos and examples of low notes, high notes on a song's scale. While learning in the control class uses conventional media (pictures) to explain the process of the process of the water cycle, the lyrics, recognize numbers and fiction and non-fiction material. After applying learning by using instructional video media in the experimental class and learning using conventional media (pictures) simple control class the results of the post-test learning process in human subthemes and

learning environment 2 in the experimental class 81.25 is greater than the average value of the control class which is 71.05. This strengthens the evidence that the use of instructional video media is more effective in human subthemes and learning environments 2, compared to using conventional media (pictures). In the teaching and learning process using instructional video media, the average skills of students to observe are higher than other aspects, because students have never seen the object observed and the curiosity of students increases. In the process of observing the teacher has also provided facilities and broad opportunities for students to make observations through the activities of seeing, listening, listening and reading, so that the learning process skills on the observing aspect can be higher than other aspects. This is in accordance with the concept explained by Daryanto [9] that the method of observing is very beneficial for the fulfillment of students' curiosity, so that the learning process has a high significance. The teacher also needs to provide facilities and train students to pay more attention to the important things of an object or object. In the aspect of observing with very good criteria in the experimental class more enthusiastic and more motivated to pay attention to any information submitted in the form of video. Students look calmer and pay attention to any information presented, so that the aspects of observing the experimental class are higher than other aspects.

Some of the opinions above relating to the skills of the learning process and learning outcomes in human subthemes and the learning environment 2 students are relevant to the results of research that researchers do. The results showed that mastery learning outcomes of students in the experimental class were higher when compared to the control class under the experimental class mastery. This was also proven by Kurniawan's research [10], which proved the differences in learning outcomes, known results of the average posttest using instructional video media were 75.37 and posttest average results without instructional video media (pictures) were 34.14. So it can be concluded that the use of instructional video media is superior in improving social studies learning outcomes. Furthermore Utaminingtyas [11], concluded the results of his research that the use of video media has a significant effect on the ability to listen to the tale of fifth grade students at SDN Panjatan Kulon Progo. The results of the study above show that learning outcomes in the classroom groups of instructional video media are better than conventional media (pictures), but there is a need to carry out and master the use of good media in implementing instructional video media in the classroom. Then Rahmayani, et al. [12] proved that video learning media can improve student learning outcomes. This is evidenced by tcount = 23,817 with a 5% significance level of 0.226. Because tcount = 23.81> table = 0.226. So Ha accepted, this shows that the Discovery Learning learning model with video media significantly influences the learning outcomes of fourth grade students of SD N Gemah. Next Joseph, at.al. [13] proved the influence of the use of interactive multimedia used by teachers in teaching.

Thus it can be stated that the use of instructional media can influence and improve student learning outcomes. Therefore, teachers need to develop learning media in accordance with learning material.

IV. CONCLUSION

Based on the discussion of the results of research that has been done, it can be concluded that there is an influence of student learning outcomes on human and environmental subthemes in class V students of Gegerbitung State Primary School, Sukabumi Regency in 2018/2019. 1. There is an influence of learning outcomes on human subtheme and learning environment 2 through instructional video media and conventional media seen from the average N-Gain obtained by the experimental class by 61 and the control class by 42. The mastery of learning outcomes obtained by the experimental group by 94, 44%, while in the control class group by 63.15%. And the results of testing the hypothesis that H0 is rejected and Ha is accepted because tcount (5.29)> ttable (1.99346). 2.

There is an influence of instructional video media on learning outcomes in fifth grade students of Gegerbitung State Elementary School in 2018/2019 This is indicated by the difference in mean scores of the post-test learning outcomes in the human sub-theme and the learning environment 2, students in the experimental class 81.25 are greater than the average value of the control class that is 71.05.

REFERENCES

[1] Agustiningsih. 2015. *Video Sebagai Alternatif Media Pembelajaran Dalam Rangka Mendukung Keberhasilan Penerapan Kurikulum 2013 di Sekolah Dasar*. Jurnal: Pancaran, Vol. 4 (1), hal 55-68.

[2] Tasmalina & Prabowo, P. 2018. *Pengaruh Media Video Pembelajaran Terhadap Hasil Belajar Siswa Pada Sub Materi Spermatophyta di SMA Swasta Nurul Amaliyah Tanjung Morawa Tahun Pembelajaran 2015/2016*. Jurnal: Best Journal; Biology Education Science & Technology, Vol;1 (01), hlm.14-20

[3] Susanto, A. 2013. *Teori Belajar & Pembelajaran di Sekolah Dasar*. Jakarta : Pernada Media Grup.

[4] Dimyati & Mudjiono. 2014. *Belajar Dan Pembelajaran*. Jakarta: Rineka Cipta.

[5] Sudjana, N. 2014. *Penilaian Hasil Proses Belajar Mengajar*. Bandung. PT. Remaja Rosdakarya.

[6] Susilana, R. & Riyana, C,. 2009. *Media Pembelajaran:Hakikat Pengembangan, Pemanfaatan, dan Penilaian*. Bandung: CV Wacana Prima.

[7] Sadiman, A.S. 2010. *Media Pendidikan*. Jakarta: Raja Grapindo Persada.

[8] Haryoko, S. 2009. *Efektivitas Pemamfaatan Media Audio Visual Sebagai Alternatif Optimalisasi Model Pembelajaran*.Jurnal Edukasi Elaktro, Vol 4 (1).

[9] Daryanto. 2014. *Media Pembelajaran. Yogyakarta*: Gava Media.

[10] Kurniawan, T.D. & Trisharsiwi. 2016. *Pengaruh Penggunaan Media Video Pembelajaran Terhadap Prestasi Belajar Ilmu Pengetahuan Sosial Siswa Kelas V SD Se-Kecamatan Gedangsari Gunungkidul Tahun Ajaran 2015/201*. Jurnal: Pendidikan Ke-SD-an. 3, (1), hlm. 21-26.

[11] Utaminingtyas, S. 2012. *Pengaruh penggunaan media video terhadap kemampuan menyimak dongeng pada mata pelajaran bahasa indonesia siswa kelas V SD negeri panjatan, panjatan, kulon progo*.

[12] Rahmayani, dkk. 2019. *Pengaruh Model Pembelajaran Discovery Learning dengan Menggunakan Mediavideo Terhadap Hasil Belajar*. Jurnal Ilmiah Sekolah Dasar Volume 3, Number 2, pp. 246-253.

[13] Joseph B. F., et.al. 1999. *The Effects Of An Interactive Multimedia Program On Teachers' Understanding And Implementation Of An Inclusive Practice*. Jurnal: Sage, Volume 2, pp. 127-142.