THE EFFECT OF USE OF VIDEO MEDIA AND WORKSHOP ON THE LEARNING RESULTS OF CLASS VII STUDENTS MATHEMATICS SMP MUHAMMADIYAH 5 SILIRAGUNG

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Abstract: This research was conducted to instructional video media on the mathematics learning outcomes of Grade VII students of SMP Muhammadiyah 5 Siliragung. This research is quantitative research. With this type of causal quantitative research. The research was conducted in class VII, namely class VIIA and VIIC, for 62 students. Meanwhile, to test the validity and reliability of the Video questionnaire instrument (X1), Data collection techniques used questionnaires, mathematics learning outcomes tests and observation sheets. The data analysis technique used the multiple linear regression test to test the effect of video media and worksheets media on mathematics learning outcomes and simulant test (F test) to test the effect of using video media and worksheets together on mathematics learning outcomes. The results show that the regression coefficient of the learning video is 0.233, meaning that if the learning video variable (X1) increases by 1% assuming the LKS variable (X2) and the constant (a) is 0 (zero), then Student mathematics learning outcomes increased by 23.3% while the second regression test can be seen that the LKS media regression coefficient value is 0.325, meaning that if the LKS variable (X2) increases by 1% assuming the learning idea variable (X1) and the constant (a) is 0 (zero), then the students' mathematics learning outcomes increased by 32.5%. And based on the results of the simultaneous test (F test), it can be seen that if F count is 6.649 with F table value is 3.15 so that the Fcount value> F table or 6.649> 3.15, and a significant level of 0.000 <0.05, it can be concluded that independent variables have an influence on variables. dependent.
Keywords: video , worksheets, learning outcomes.

INTRODUCTION

Education is basically one of the efforts to improve better human resources. Various government efforts to make this happen. One of the efforts made is to change the curriculum starting from the old 1994 curriculum, KBK curriculum, KTSP curriculum, up to the 2013 or K-13 curriculum. This shows the government's efforts to improve human resources in this country. Various regulations both from laws and ministerial regulations have also been made many changes in order to improve the quality of education from time to time. When it was found that there were things that were not quite right here and

there, they quickly joined forces to anticipate and make changes to the provisions. The same goes for learning activities at school. All principals and teachers are always required to be creative and innovative. Both from administration, presentation in class, orderliness, school cleanliness, completeness of facilities and infrastructure to instilling character in students.

There are more demands for all teachers in all schools, namely to be creative, innovative, and fun in delivering learning material and in line with the current curriculum, namely K-13 must emphasize the inculcation of character education in students as the next generation of the nation. Learning is something that must be experienced by every human being. According to Slameto (2018: 2), learning is a process of effort that is carried out by someone to obtain a new change in behavior as a whole, as a result of one's own experience in interaction with the environment.

Learning mathematics is a form of learning using symbolic language and requires reasoning and logical thinking in its proof. In learning mathematics past learning experiences play a role in understanding new concepts. Mathematics is one of the compulsory subjects in education as stated in the Law of the Republic of Indonesia Number 20 of 2003 concerning the National Education System. Mathematics is one of the compulsory subjects in the curriculum offered from elementary to senior level.

For most students, mathematics is a subject that is considered difficult. This is evident from a survey conducted by the Program for International Student Assessment (PISA) under the Organization for Economic Cooperation and Development (OECD) which was conducted in 2012 (www.kompasiana.com) with survey participants from 65 countries getting very alarming results. The results of a survey on the mathematical abilities of students in Indonesia were ranked 64 out of 65 countries, alias second from bottom, with a score of 375. Less than 1 percent of Indonesian students have good abilities in mathematics. These teachers have more challenges to change their existing mindset. Various efforts were made by the teacher to improve learning outcomes. Starting from implementing learning models to using learning aids / media.

Entering the 21st century, learning is required to be technology-based to balance the demands of the millennial era with the aim that students will become accustomed to 21st century life skills. Therefore, the government designed 21st century learning through the 2013 curriculum which is based on students. Teachers as an extension of the government in schools apply 21st century learning. In formal schools, learning is already required to apply 4C abilities (Critical Thinking, Communication, Collaboration, Creativity), this can be realized quickly not only demands on teacher performance in changing teaching methods , but also the roles and responsibilities of non-formal educators in getting children to apply 4C in their daily life. To achieve ideal learning conditions, the quality of teaching is always related to the optimal use of learning models, this means that to achieve high quality teaching each subject must be organized with the right organizing model and then delivered to students with the right model too. 4C skills must be mastered and possessed by every student in order to face the challenges of the 21st century.

According to the taxonomy of Leshin et al (in Rosyid 2019: 10) learning media can be classified as follows: 1) human-based media; 2) print-based media; 3) visual-based media; 4) audio-visual based media; 5) computer-based media. Each of these media has its own advantages and disadvantages. Teachers can choose media according to learning objectives and in accordance with the material being taught. Selection of the right media will greatly affect the learning process.

Experts have one-way views regarding learning media with image stimuli with the senses of sight and word stimuli with the senses of hearing or visual and verbal. Comparison of the acquisition of learning outcomes through the senses of sight and sense of hearing is very prominent difference. Approximately 90% of a person's learning outcomes are obtained through the senses of sight, and only about 5% are obtained from the senses of hearing and 5% with other senses. Dale estimates that the acquisition of learning outcomes through the senses of sight is around 75%, through the senses of hearing about 13%, and through other senses around 12%. Thus, the learning media visually is greater than the audio learning media. However, if the learning media is collaborated between audio and visual it is hoped that it will improve learning outcomes as desired (Arsyad 2013: 13).

The use of video media in learning activities can attract students' attention, thereby fostering curiosity and motivation to learn, using video media will affect the learning process and of course education needs to have new breakthroughs that are more energetic in learning because with the right media the learning process will be easy to walk then students will better understand what is conveyed, so that the subject matter delivered will be absorbed by students will automatically improve student learning abilities.

1. Media Video

The word media comes from Latin and is the plural form of the word medium which literally means intermediary or introduction. In Arabic, media means an intermediary between the messenger from the sender to the recipient of the message according to Arsyad (2013: 3). Hamidjojo and Latuheru (Arsyad, 2013: 4) argue that media is a form of intermediary used by humans to convey or spread ideas, ideas, or opinions so that the ideas, ideas or opinions put forward reach the intended recipient. This is reinforced by the opinion of Romiszowski that media is a messenger that comes from a message source (which can be a person or object) to the recipient of the message.

Audio-visual technologies that are often used in learning are films, slides, and videos. Definition of Video According to the Big Indonesian Dictionary, video is a live image recording or television program to be broadcast via a television set, or in other words, video is a moving image display accompanied by sound. Video actually comes from the Latin, video-vidivisum which means to see (to have the power of vision); can see. Video media is one type of audio-visual media. Audio-visual media is media that relies on the senses of hearing and sight. Audio visual media is one of the media that can be used in listening learning. This media can increase students' interest in learning because students can listen and see pictures at the same time. Arsyad (2013: 50) states that video is pictures in frames, where frame by frame is projected mechanically through a projector lens so that a live image appears on the screen.

2. Worksheet media

LKS is a learning tool as a complement or means of supporting the implementation of lesson plans. According to Kokom (2010: 117) "LKS is a form of book for exercises or homework which contains a set of questions according to the subject matter". In the General Guidelines for the Development of Teaching Materials, student worksheets are sheets that contain assignments that must be done by students. Student worksheets are teaching materials that have been packaged in such a way that students

are expected to be able to study the teaching materials independently. LKS are sheets that are used as guidelines in learning and contain assignments that must be done by students in certain studies. LKS as a support to increase student activity in the learning process can optimize learning outcomes.

Lismawati (2010: 39) explains that LKS has the characteristics of only consisting of a few pages, not up to a hundred pages. LKS is printed as specific teaching material to be used by certain educational level units. It contains a brief description of the subject matter, dozens of multiple choice questions and fill-in questions. Student Worksheets must be prepared with clear goals and objectives. According to Andi (2011: 206) the preparation of worksheets aims to present teaching materials that make it easier for students to interact with the material provided; present tasks that increase students' mastery of the material provided; train students' independent learning; LKS preparation also aims to facilitate educators in giving assignments to students.

Learning outcomes

Learning outcomes are changes in student behavior in real terms after the teaching and learning process is carried out in accordance with the teaching objectives. Changes in behavior in learning activities result in students having mastery of the teaching material presented in teaching and learning activities. Behavior as a result of learning in a broad sense includes the cognitive, affective, and psychomotor fields.

Minister of Education and Culture No. 21 of 2016 concerning Graduate Competency Standards (SKL) states that the SKL reference is Bloom Taxonomy which was first introduced by a group of researchers led by Benjamin Bloom in 1956 and further developed by Anderson and Krathwol in 2001. Bloom Taxonomy categorizes learning outcomes into three domains, namely the knowledge dimension related to knowledge mastery, the attitude dimension related to the mastery of attitudes and behavior, and the skills dimension related to skill mastery. The dimensions of knowledge are classified into factual, conceptual, procedural, and metacognitive. This cognitive process dimension is arranged hierarchically starting from remembering, understanding, applying, analyzing, evaluating, and creating. Effective domains are receiving, responding, valuing, organization, characterization. While the psychomotor domain includes initiatory, pre-routine, and routineized as well as productive, technical, physical, social, managerial, and intellectual skills. Setiawati et al(2019:15)

METODE

1. Research Design

This research is a quantitative research. With this type of causal quantitative research. Namely research that is looking for the influence of certain variables (independent) on other variables (bound). (Sugiyono, 2018:15)

2. The method of determining the research area

In determining the research area, the authors used the quota random sampling area method, namely by directly appointing the research area, namely SMP Muhammadiyah 5 Siliragung (Sumiharsono, 2017:80)

3. The method of determining research respondents

In connection with the research that the author conducted, the respondents were students of class VII A and VII C at Muhammadiyah 5 Siliragung Middle School using the purposive quota method of random sampling with a lottery technique. According to Sumiharsono (2017: 74) the sampling technique is a method used to collect samples by selecting a certain number to investigate from the whole taken from the population.

Method of collecting data
The methods used in this research are the test method, the observation method, the questionnaire method and the documentary method

2. Methods of data analysis
Descriptive analysis
Descriptive analysis is an analysis used to analyze data by describing the collected data as it is without intending to make general conclusions or generalizations (Sugiyono, 2018: 206). This analysis is used to find out to obtain a general description of the respondents being studied. After collecting the data, the next activity is coding so that the data collected can be processed using a statistical data analysis program, the researchers used the SPSS program version 21.0 for Windows

RESULTS AND DISCUSSION
Research result
Table 4.12 The results of the linear regression test

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	8,295	3,112		2,665	,010		
	Video (X1)	,233	,055	,179	3,611	,543	,992	1,008
	LKS (X2)	,325	,028	,117	4,903	,370	,992	1,008

Based on data analysis using SPSS 21.0, the following equation is obtained:

$Y = 8.295 + 0.233 X1 + 0.325 X2$

The above equation shows the relationship between the independent variables and the dependent variable partially. It can be concluded that: The constanta value is 8.295, meaning that if there is a change in the video media variable and LKS (values X1 and X2 are 0) then the students' mathematics learning outcomes are 8.295 units.

(1) The effect of instructional video media on mathematics learning outcomes.

From the results of the regression test in table 4.12 it can be seen that the regression coefficient value of the learning video is 0.233, meaning that if the learning video variable (X1) increases 1% assuming the LKS variable (X2) and constant (a) is 0 (zero), then the results students' learning mathematics increased by 23.3%. This shows that learning video media contributes positively to students' mathematics learning outcomes. So that the greater the use of learning videos, the higher the student's learning outcomes in mathematics. Thus it can be concluded that there is an effect of using instructional video

media on the mathematics learning outcomes of class VII students of SMP Muhammadiyah 5 Siliragung in the odd semester of the 2020/2021 academic year.
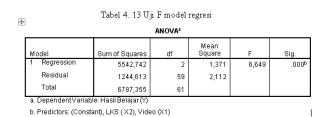
(1) The effect of using LKS on mathematics learning outcomes.

From the results of the regression test in table 4.12 it can be seen that the regression coefficient value of the LKS media is 0.325, meaning that if the LKS variable (X2) increases 1% assuming the learning video variable (X1) and constant (a) is 0 (zero), then the learning outcomes students' mathematics increased by 32.5%. This shows that LKS media contributes positively to students' mathematics learning outcomes. So that the bigger the LKS media, the higher the students' mathematics learning outcomes. Thus it can be concluded that there is an influence on the use of LKS media on the mathematics learning outcomes of class VII students of SMP Muhammadiyah 5 Siliragung in the odd semester of the 2020/2021 academic year.

Pengaruh Penggunaan Video pembelajaran dan LKS secara bersama – sama terhadap hasil belajar matematika.

In this study, to find out whether the variables together have a significant effect on the dependent variable the researcher uses a simultaneous test (F test). This test is carried out by comparing the significance of the value of Fcount > Ftable, so the model formulated is correct. If the value of Fcount > Ftable, it can be interpreted that the regression model has the right attrition of simultaneous effects by looking at the value of Ftable = f(k:n-k), F = (2:62-2), Ftable = (2:60) = 3.15 with error rate 5%.

Based on the test results in the table above, it can be seen that if Fcount is 6.649 with Ftable value is 3.15 so that Fcount > Ftable or 6.649 > 3.15, and a significant level of 0.000 <0.05 then H0 is rejected so it can be concluded that the independent variable has an influence which is very significant to the dependent variable. This means that there is a joint influence between learning videos (X1) and LKS (X2) on the mathematics learning outcomes of class VII students of SMP Muhammadiyah 5 Siliragung.

Tabel 4. 13 Uji F model regresi

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5542,742	2	1,371	6,649	.000^b
	Residual	1244,613	59	2,112		
	Total	6787,355	61			

a. Dependent Variable: Hasil Belajar (Y)

b. Predictors: (Constant), LKS (X2), Video (X1)

CONCLUSION

Based on the general description, hypothesis testing and discussion, the results of this study can be concluded as follows:

1. There is an effect of the use of instructional video media on the mathematics learning outcomes of class VII students of SMP Muhammadiyah 5 Siliragung.
2. There is an influence of the use of learning LKS media on the mathematics learning outcomes of class VII students of SMP Muhammadiyah 5 Siliragung.
3. There is a mutual influence between the use of video media and worksheets on the mathematics learning outcomes of class VII students of SMP Muhammadiyah 5 Siliragung

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