

The Effect of Use of Audiovisual Learning Media on the Students' Mastery of Concept in Civics Learning

Ratnaningsih¹, Rini Triastuti², Dewi Gunawati³

¹Student of Post Graduate Civic Education, Sebelas Maret University

^{2,3}Lecturer of Post Graduate Civic Education, Sebelas Maret University

ratnaningsih935@gmail.com, rinitriastuti@staff.uns.ac.id, dewigunawatiuns@yahoo.co.id

Abstract: Education as a continuous process must be able to develop competencies and involve technology in various aspects. The use of civics learning media that are not following the learning styles of students can affect the students' mastery of concepts. One alternative learning media that can overcome the differences in the students' learning styles is audiovisual learning media. Audiovisual learning media is a learning media that produces images and sounds in the delivery of learning material so that students easily understand the concepts in civics learning. Civics learning using audio-visual learning media will facilitate and accelerate students' understanding, one of which is by presenting learning situations with a more concrete presentation. The use of audio-visual learning media can contribute to the students' mastery of the concepts in civics learning. This study aimed to determine the significant effect of the use of audio-visual learning media on the students' mastery concepts in civics learning. The study was conducted on 64 students divided into 2 groups. The data collected from the dependent variable were the students' mastery of concepts in civics learning was measured through post-test after treatment. The data were validated using a simple linear regression test. The result showed that the use of audio-visual learning media has an impact in the form of students' mastery of concepts higher than the use of conventional learning without using audio-visual learning media.

Keywords: *audiovisual learning media, mastery of concept, civics learning*

INTRODUCTION

The change in the condition of industrial economy society towards an information technology-based society indicates the rapid development of the world. Information technology has influenced our lives, including education (Hanafizadeh, Asgarimehr, & Ghandchi, 2017). Education as a continuous process must be able to develop competencies and involve technology in various aspects. The generation born in the millennial era with the development of technology cannot be separated from the use of media and digital technology. Generation is now more interested in the delivery of information and learning materials using media that not only displays sound but also is equipped with colored images, such as television, film, video, and computers. They will easily get bored with traditional lecture learning (Li, 2016). The study of (Almeida, Moraes, Rego, & De, 2011) shows that the use of audio-visual learning media, such as video, has a positive impact on the teaching and learning process. Audio-visual learning media are learning media that produce images and sounds in the delivery of learning material so that students easily understand certain concepts. Squire in (Pilar, Jorge, & Cristina, 2013) suggested that audio-visual learning media present sounds, images, and interesting elements that encourage students to interact with the media. Mayer and Moreno (Meredith, 2011) in Cognitive Theory of Multimedia Learning (CTML) suggest that students' mastery of teaching materials will be more effective and profound when using sounds and images together than displaying sounds or images only. Nasution (2008: 45) states that audio-visual tools can help students learn in the form of more concrete presentations to facilitate and accelerate conceptual understanding for students.

Based on the study conducted by (Fleenor, 2015), there is a relationship between learning organization and mastery of concepts among students. The use of audio-visual learning media makes it easier for students to understand the material conveyed by teachers. In the study of (Pilar et al., 2013), audio-visual learning media are very suitable for learning. Glasser (Pilar et al., 2013) suggests that the level of understanding of students obtained from what they read is 10%, what they hear 20%, what they see 30% and what they hear and see 50%. According to Mulyani Sumantri and Permana (2001: 41), mastery of concepts is the ability of individuals to mention similarities and differences from examples that present information about the characteristics and value of attributes of the concept, and then reformulate the concept. Thus, mastery of concepts is the ability to capture the meaning and explaining the concepts of a subject matter. Full mastery of concepts for certain materials from each student will influence the world of education.

The nature of Pancasila and Citizenship Education (Civics) is a vehicle for the development of critical thinking that focuses on developing three competencies of students, namely Civic Competence (Civics Knowledge), Civic Disposition (Citizenship Values and Attitudes), and Civic Skills (Citizenship Skills) (Winarno, 2014). Civics learning requires teachers to be able to integrate appropriate learning media so that they can provide stimuli for students to understand the teaching material delivered. Algan (Cordero & Gil, 2018) puts forward to develop various dimensions of social attitudes such as working with peers and teachers and to increase involvement as citizens can be done by applying modern learning practices. Audio-visual learning media that present images and sounds at once are one type of media used in civics learning to develop civic knowledge, civic disposition, and civic skills of students. This study aimed to determine the significant effect of the use of audio-visual learning media on the students' mastery of concepts in civics learning.

METHOD

This study is quantitative. The population of this study was the eleventh-grade students in Public Junior High School 2 Karangpandan consisting of 6 classes. The subjects were selected using simple random sampling, comprising of 2 classes. The study location was at Public Junior High School 2 Karangpandan, Karanganyar Regency in the 2018/2019 academic year. The study was conducted from March to May 2019. This study was an experimental study on 64 students divided into 2 groups, 32 students in the experimental class using audio-visual learning media and 32 students in the control class without using audio-visual learning media. The audio-visual learning media applied in the experimental class were taken from the existing literature, from the internet in the form of videos, films, and stories/cases by the civics material.

In the main study, the data collected from the dependent variable were the students' mastery of concepts in civics learning by using the multiple-choice test method. The students' mastery of concepts in civics learning was measured through post-test after treatment. The collected data were then analyzed using a computer statistics program. The analysis to find out the real difference of treatment was carried out using simple linear regression test $Y=a+Bx$.

RESULTS AND DISCUSSION

Description of Observation Sheet Results on the Use of Audio-Visual Learning Media

The data on the learning process implementation using audio-visual media can be seen in Table 1.

Table 1. Results of Observation Sheet for Using Audio-Visual Learning Media (X)

Observation Sheet Score	Observation Sheet Score in Percent	Number of Students	Scores
39	81 %	2	163 %
40	83 %	3	250 %
41	85 %	5	427 %
42	88 %	3	263 %
43	90 %	4	358 %
44	92 %	6	550 %
45	94 %	2	188 %
46	96 %	7	671 %
Average Score of Observation Sheet			90 %

Table 1 above displays the score of the observation sheet for each student. The results showed that the average percentage of learning implementation in the experimental class was 90%. Based on the criteria, it can be concluded that in the experimental class the learning process has been carried out very well.

The full picture can be seen clearly in the following figure.

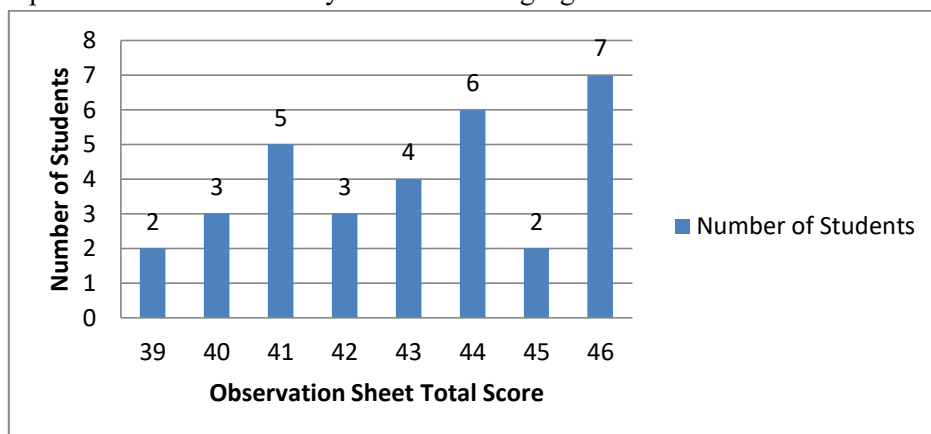


Figure 1. Results of observation sheet for using audio-visual learning media (x)

Description of the Results of Students' Mastery of Concept

The summary of the data on the students' learning outcomes is presented in Table 2.

Table 2. Data on Students' Learning Outcomes of Control and Experimental Classes

Classes	Number of Students	Lowest Scores	Highest Scores	Mean
Experimental	32	60	93	78.44
Control	32	53	82	71.81

Based on Table 2 above, it was found that the results of measuring the students' mastery of concepts were carried out through tests in both the experimental class and the control class. The test results showed that the experimental class average score was 78.44 with the lowest score of 60 and the highest score of 93. The average score of the control class was 71.81, with the lowest score of 53 and the highest score of 82. The full picture can be seen clearly in the following figure.

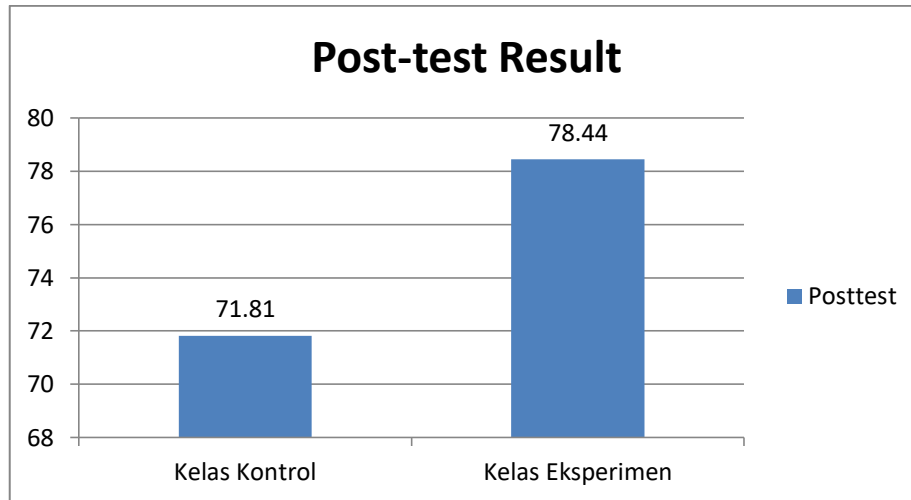


Figure 2. Chart of Posttest Results of the Control and Experimental Classes

Hypothesis Test Results on the Effect of Using Audiovisual Learning Media on Students' Mastery of Concepts

Hypothesis testing was carried out to determine the effect of using audio-visual media in learning on the students' mastery of concepts. Hypothesis testing applied a simple linear regression formula using SPSS. The results of the hypothesis testing are as follows:

Table 3: Calculation Results of Simple Linear Regression Analysis in Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Errors	Beta		
1	(Constant)	-28,637	18,315		-1,564	.128
	Audio Visual	2,488	.425	.730	5,854	.000

a. Dependent Variable: Mastery of Concept

Source: Processed Data of SPSS 2019

To find out whether there is an effect of variable X on Y, the researcher compared the significance values (Sig.) with the probability of 0.05. Based on Table 2, it is known the significance value (Sig.) is 0.000 smaller than the probability of 0.05. Thus, it can be concluded that the use of audio-visual learning media (X) influences the mastery of concepts (Y).

Next, to find out the regression equation, the values in Table 2 are included in the regression equation as follows:

Regression equation $Y = a + Bx$

Then, the equation is: $Y = -28.637 + 2.488 X$ or $Y = 2.488 X - 28.637$

The regression equation is a constant number value (a) from the unstandardized coefficient = -28.637. This means that if the value of the use of audio-visual media (X) is 0, the value of the mastery of the concept (Y) is 28.637. The regression coefficient value (b) is positive, which is 2.488. This means that every time there is an increase in the value of the use of audio-visual media (X) of 1, then the mastery of concepts (Y) will increase by 2.488.

Furthermore, to find out the effect of using audio-visual learning media (X) on the mastery of concepts (Y) can be seen from the magnitude of the determination coefficient (R^2 or R Square) in the following summary model table:

Table 4: Calculation Results of Simple Linear Regression Analysis in Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
1	.730 ^a	.533	.518	5.35909

a. Predictors: (Constant), Audio Visual

Based on Table 4, the R Square column which shows the determination coefficient number is 0.533. [This is changed in percent to 53.3%. This means that the contribution percentage of the effect of using audio-visual learning media on the mastery of concepts is 53.3%.

DISCUSSION

The results of the observation sheet about the use of audiovisual learning media

Based on the results of the study through the observation sheet, it was found that from 32 students experiencing the learning process using audio-visual learning media, 2 students obtained 39, 3 students obtained 40, 5 students obtained 41, 3 students obtained 42, 4 students obtained 43, 6 students obtained 44, 2 students obtained 45, and 7 students obtained 46.

From the results of the study, the average score of the observation sheet of 90% shows the average percentage of the implementation of the learning process using audio-visual learning media which was done very well. This is by the study of (Cordero & Gil, 2018) that the use of ICT will increase student involvement in learning. The implementation of audiovisual in learning provides many benefits such as increasing student interest and motivation (Olube, 2015). The results of the study after the use of audio-visual learning media showed the implementation of the learning process was very good.

Description of the Results of Students' Mastery of Concepts

Based on the results of the study, it was found that the average score of the experimental class post-test using audio-visual learning media was higher of 78.44 than the score of the control class of 71.81. From the results of the study, it can be concluded that the use of audio-visual learning media has an impact in the form of students' mastery of concepts higher than the use of conventional learning without using audio-visual learning media.

The results of this study are following the study of (Rosyida & Joharmawan, 2017) that there are significant differences in student learning outcomes with learning strategies that use audio-visual learning media to have higher learning outcomes than those without using audio-visual learning media.

Hypothesis Test Results on the Effect of Using Audiovisual Learning Media on Students' Mastery of Concepts

The use of audio-visual media in learning has an impact in the form of students' mastery of concepts higher than conventional learning without using audio-visual media. Thus, audio-

visual media can be used as one of Evidence-Based Practice, namely as an alternative learning media in improving students' mastery of concepts.

The results of the analysis using simple Linear Regression analysis have a significance value of 0.000 ($p < 0.05$), which means that there is an influence of the use of audio-visual media on the students' mastery of concepts. The result of the study accordance with Mayer and Moreno in (Meredith, 2011) The Cognitive Theory of Multimedia Learning (CTML) that audio-visual media that present sound and images at once are effective in increasing students' mastery of concepts. There is an increase in student achievement using audiovisual (Al-Khayyat, 2016). Besides, audiovisual media are also easily obtained through internet literature both in the form of videos, films, and case examples. This can be used as an alternative learning media in improving the students' mastery.

CONCLUSIONS

In conclusion, the importance of using audio-visual media as a learning media in the classroom. Because it can develop the implementation of the learning process.

First of all, the use of audio-visual learning media has an impact in the form of students' mastery of concepts higher than the use of conventional learning without using audio-visual learning media. Learning processed by using audio-visual can stimulate students' motivation into active involvement in the learning process.

Secondly, we should be more widely to develop the learning process by using audio-visual media to improve the students' mastery of concepts because the efficiency learning process by using audio-visual was proved.

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