

The Influence of Viewing Audio Visual Materials in Learning on Students' Learning Concentration

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ABSTRACT

This research aims to see the effect of showing audio-visual material on student learning concentration. This research method uses a quantitative approach type of pre-experimental designs research with methods one group pretest-posttest design. The questionnaire used by the researchers was the Chen et al. learning concentration questionnaire. (2013). The population of this study were active students with a sample size of 22 people. Research result obtained a normality test of $p = 0.334$ which means $> \alpha 0.05$ and the T-test showed a value of $p = 0.047$ which means $< \alpha 0.05$ and the results of descriptive statistics obtained a mean pretest = 107.409 and posttest = 112.545. So H_0 was rejected and H_a was accepted, meaning that there was a significant increase in the learning concentration level of students after being given treatment in the form of audio-visual learning media.

Introduction

Education is an important foundation in shaping the future of the younger generation and the development of a country. The aim of national education is further explained in article 3 of the National Education System Law Number 20 of 2003, namely to develop the potential of students to become human beings who believe and are devoted to God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens.

Effective education requires students who have good learning abilities, one of which is the ability to focus or concentrate. However, the challenges in maintaining student concentration are increasing in this modern era due to distractions from technology, excessive information, and other factors that interfere with concentration. Study focus or study concentration is a psychological aspect that is sometimes not easy for people other than yourself who are studying to understand (Dermawan et al., 2023).

Study concentration is a psychological aspect that is sometimes not easy for people other than yourself who are studying to understand. Concentration is focusing the mind's attention on one thing to the exclusion of all other unrelated things. For some students, there are those who lack concentration on learning media in the form of power points, which are very monotonous and uninteresting. Innovative and effective strategies are needed to increase students' concentration so that they can achieve better learning outcomes, this can

be by presenting lecture material in the form of interesting and creative learning videos or audio visuals.

According to (Gilar et al., 2021; Puteri et al., 2020) Audio visual itself is a combination of images or sounds displayed into one part in order to make it easier to convey the material and of course in this way it will foster enthusiasm for students. Learning media has an important role in creating an interesting and effective learning environment (Melati et al., 2023). Video as a form of learning media has become easier to access and use in education. Videos have the advantage of displaying information visually, audio and interactively, which can stimulate more of students' senses (Sappaile et al., 2023). Audio visual learning media by showing creative animated power points and interesting learning videos so as to increase students' interest and concentration in learning.

According to Richard Mayer, an educational psychologist who studies multimedia learning. Mayer emphasized that the appropriate use of visual materials can improve understanding and retention of information in learning (Ina Magdalena, 2021). Effective and good learning can be supported by conducive teaching conditions and feedback between educators and students and therefore discussions will occur between students and teachers (Fadlilah, 2020). The aim of using audio visual media is to guide students in improving their perception abilities and increasing student attention. Not only that, audio visual media will also help to divert students' attention to the material being taught. So this audiovisual media can improve retention abilities (students' memory) (Sabran, 2020).

The purpose of this research is to determine the level of concentration or concentration in students' learning using modern technology-based learning media such as "audio-visual" learning media, for example showing animated power points or learning videos to see student learning success..

Method

This research is research that uses a quantitative approach. The research uses a pre-experimental designs research type with the one group pretest-posttest design method. The questionnaire used by researchers was the Chen et al. learning concentration questionnaire. (2013) which was modified into Indonesian and adjusted the contents of the questionnaire for students Ahmad Zinade Sagareno and Sutarto, (2019). There are two variables in this research, namely the independent variable (X) is audio visual and the dependent variable (Y) is learning concentration, the population of this research is active students with a sample size of 22 people consisting of 7 men and 15 women who have been selected using a purposive sampling technique, according to Ika Lenaini (2021) Purposive sampling is a procedure used by researchers to determine the criteria for which respondents can be selected as samples. Data collection techniques in this research are tests and questionnaires. Data analysis techniques use statistical software in the form of JASP Version 0.18.1 with data processing using Paired Samples T-Test. In pre-experimental research, the subject is designed first given an initial test (pre-test) to determine the level of learning concentration

on the learning material before being given treatment (treatment). After being given the initial test, the student will then be given treatment using an approach in the form of lecture material in audio-visual form. Then students are given a final test (post-test) to determine their level of learning concentration.

Results and Discussion

This research had a research sample of 22 students, with 7 men and 15 women. All samples met the research criteria, namely being an active student and having good eyesight and hearing. Most participants experienced difficulty concentrating on studying before being given treatment.

Based on the results of the normality test below which uses the Shapiro-Wilk model because the data sample is <100, the pretest value $p = 0.670$ and posttest $p = 0.490$ are obtained, which means it is greater than $\alpha 0.05$. Thus, the distribution of pretest and posttest data is normally distributed.

Table 1. *Test of Normality (Shapiro-Wilk)*

	PRETEST	POSTTEST
Shapiro-Wilk	0.968	0.960
P-value of Shapiro-Wilk	0.670	0.490

Based on the results of the combined normality test of prepost and posttest data below which uses the Shapiro-Wilk model because the data sample is <100, a value of $p = 0.344$ is obtained, which means it is greater than $\alpha 0.05$. Thus the distribution of the two data is normally distributed. Because the data is normally distributed, the next data analysis uses a paired sample t-test with the student t-test model.

Table 2. *Test of Normality (Shapiro-Wilk)*

		W	P
PRETEST	- POSTTEST	0.952	0.344

Note. Significant results suggest a deviation from normality.

Based on the results of the t-test output table below, the value of $p = 0.047$ is obtained, which means it is smaller than $\alpha 0.05$. Thus, H_0 is rejected and H_a is accepted, where there is a significant difference in student learning concentration before and after being given learning material in audio-visual form, it is declared accepted.

Table 3. Paired Samples T-Test

Measure 1	Measure 2	t	df	P
PRETEST	POSTTEST	-2,114	21	0.047

Note. Student's t-test.

Based on the results of the descriptive analysis below, the mean or mean score for the students' pretest = 107.409 and posttest = 112.545. This means that there was an increase in student concentration before being given treatment compared to after being given treatment with audio-visual learning materials. Thus, it can be concluded that providing learning materials in audio-visual form has a significant effect on increasing the learning concentration.

Table 4. Descriptive Statistics

	N	Mean	elementary school	S.E	Coefficient of variation
PRETEST	22	107,409	11,863	2,529	0.110
POSTTEST	22	112,545	11,771	2,509	0.105

Tables, Figures and Formulas

Table 1. Test of Normality pretest and posttest (Shapiro-Wilk)

	PRETEST	POSTTEST
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P-value of Shapiro-Wilk	0.670	0.490

Table 2. Test of Normality (Shapiro-Wilk)

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Conclusion

Based on the results of research conducted using the quantitative one group pretest-posttest method, the research objective was to evaluate the effect of broadcasting audiovisual learning media on students' concentration levels. The results of the normality test data analysis obtained $p = 0.334$ which means $> \alpha 0.05$ and the T-test showed a value of $p = 0.047$ which means $< \alpha 0.05$ and the results of descriptive statistics obtained a mean pretest = 107.409 and posttest = 112.545. So H_0 was rejected and H_a was accepted, meaning that there was a significant increase in the learning concentration level of students after being given treatment in the form of audio-visual learning media.

As for suggestions for future researchers, it is hoped that they can consider increasing the number of research subjects and adding direct observation methods as well as increasing the frequency of treatment providing learning material in audio-visual form to gain a deeper understanding of the effect on students' concentration levels. In addition, it is recommended for future researchers to include a control group that did not receive treatment as a comparison, as well as an experimental group that received the treatment. So it is possible to identify the effects of the treatment clearly.

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