

## Digitalization Learning Media: Review of Students Interest in Using Wordwall Web Learning Media

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**Abstract:** Interest in learning is one of the determining factors for learning success. Students' interest in learning can be stimulated by the use of interesting and fun media. The digital age requires teachers to utilize technology in developing media that appeals to students. This paper aims to test the comparison of student interests between those who use the Wordwall Web learning media and the Paper test on learning mathematics material reading and interpreting data. The research was conducted in grade 5 MI Ma'arif Patihan Wetan for the 2021/2022 academic year. The study used a quantitative approach type quasi Experimental Design with a sample of 46 students. Data collection is carried out using questionnaires and documentation. The data analysis technique uses the test formula Independent Sample t-Test with the help of SPSS v25 for windows. The results showed that the percentage of comparison of student learning interest in the high category between experimental classes was higher than that of students in the control class. Based on the results of the t test, it shows that t counts  $4.674 > 2.021$  on the t table and the significance level of 2 tailed  $0.000 < 0.05$  which means that there is a difference in student learning interest between students who use Web Wordwall learning media and those who use The Paper Test.

**Keywords:** digitalization, learning media, wordwall media, interest in learning

### INTRODUCTION

One of the intrinsic factors that influence learning success is the interest in learning. Interest in learning is a major factor in determining student activity, so interest has a significant influence on learning (Susanto, 2013). Interest in learning can be manifested in the form of feelings of pleasure in the learning process, attention and thoughts that are concentrated on learning activities, have an attraction to the material or learning process and play an active role in learning activities (Friantini & Winata, 2019).

The results showed that students' low interest in learning mathematics in elementary schools, occurred a lot in some places. MI Ma'arif Patihan Wetan is no exception. This is as revealed by the class V teacher in an interview conducted by the author on January 18, 2021. As an effort to overcome the lack of interest in student learning, it is necessary to create certain conditions that are carried out by the teacher so that students always need to learn

and always want to learn. One of them is to use learning media. The use of appropriate learning media will increase students' interest in learning (Fathurrohman & Sulistyorini, 2012).

According to Supriyono, it is important to use media in learning. In addition to increasing student interest and motivation, the use of learning media also serves to reduce verbalization (Supriyono, 2018). The selection of game media using the Wordwall Web application is carried out by teachers as a form of digitizing learning media. The game is compiled by the teacher as an educational game that has content in accordance with the mathematics subject matter in class V. Apart from being a learning medium, the selection of smartphone-based applications is carried out to divert students' attention to educational games in accordance with the meter of lessons in school.

The advantage of this application is that it provides many templates that teachers can use to develop math problems in the form of games. These templates include Match Up (matching), Open The box (guessing the contents of the box), Random Card (guessing cards), Labelled Diagram (arranging images), Maze Chase (running towards the correct answer), Quiz (multiple choice game), Find the Match (matching images), Matching Pairs (laying tiles), Anagrams (Put letters according to the box), Categorize (Drag and drop but placed on the available box), Missing Word (Linking on an empty box), Wordsearch (Find hidden characters), Rank Order (Drag and drop items that are already available), Random Wheel (Turning the wheel), Group Sort (Collecting answers according to groups), Unjumble (Drag and drop forming sentences), Gameshow quiz (Time-limited multiple choice), Airplane (Games likes planes) (Shiddiq, 2021). Another advantage of this application is the easy access to use or design games. The application can be accessed via the link: <https://wordwall.net/>.

The study that has been carried out by previous researchers is a study of student learning outcomes using wordwall web media (Maghfiroh, 2018), and a study of students' interest and motivation for learning using the wordwall web (Nissa & Renoningtyas, 2021), Both researchers chose to use web wordwall media because it is very efficient in its use and very time-saving. This is because it can be done online. In addition, students do not need to install applications to save their smartphone storage space. In this study, the author applied the use of wordwall web media to offline learning, in mathematics subjects. This research is more focused on students' interest in learning.

Research on students' interest in using wordwall web media was carried out in class V MI Ma'arif Patihan Wetan located on Jl. Parang Menang IV, No. 18, Babadan, Krajan, Patihan Wetan, Ponorogo District, Ponorogo Regency, East Java. MI Ma'arif Patihan Wetan was chosen as the location of the study because based on the results of an interview on Tuesday, January 18, 2021, which I conducted with a grade 5 mathematics teacher of MI Ma'arif Patihan Wetan, Mrs. Anik said that the average 5th grade student of MI Ma'arif Patihan Wetan did not like mathematics. They consider that mathematics is a very difficult subject. Coupled with the results of their math scores, many are still below average. This is because the school itself still uses conventional media and learning methods, besides that the school has not been able to maximize the use of appropriate interactive learning media to stimulate students to be interested in mathematics subjects. In addition, many grade 5 students feel less interested and interested in solving evaluation questions (Rintyaningsih, 2022).

The purpose of this study is to find out the differences in students' learning interests using wordwall web learning media with paper tests on mathematics learning. The research approach used is to use quantitative research. This method is called quantitative research

because the data produced in the study is in the form of numbers and analysis using statistics (Sugiyono, 2013). Furthermore, the type of research used by researchers is Quasi Experimental Design research because this form of experimental research is best suited to research cases in the field of education whose subjects are humans in this case students or teachers who are difficult to control fully. Meanwhile, the research design uses a Nonequivalent control group design. This design is almost the same as the pre-test and post-test control group design, except that in this design the experimental group and the control group are compared, but the sample is taken not randomly. The two groups to be given a pre-test were then given treatment and the last one was given a post-test (Gunawan et al., 2020). The purpose of this study is to find out the differences in students' learning interests using wordwall web learning media with paper tests on mathematics learning.

Data collection techniques with questionnaire techniques. Data analysis in this study used descriptive statistical analysis and inferential statistical analysis. Descriptive analysis is carried out to find out the picture of the data to be analyzed (Hartono, 2014). As for describing the research variables, the researcher uses a percentage analysis technique with the formula:

$$K = 1 + 3.3 \log n$$

Where:

K = Number of classes

n = Many respondents

After the number of classes is obtained, it next calculates the length of the interval class with the formula (Supranto, 2000):

$$C = \frac{X_n - X_1}{K}$$

Where:

C = Length of interval class

X<sub>n</sub> = Ideal maximum score

X<sub>1</sub> = Ideal minimum score

K = Number of Classes

Inferential statistics are statistics used to analyze sample data, and the results will be generalized to the population in which the sample was taken (Muhid, 2019). To conduct an inferential statistical analysis in this study, researchers used a normality test and a homogeneity test. To test the hypothesis the researcher uses the t Test.

## **METHOD**

### **Descriptive Analysis**

After the two classes (experimental class and control class) were given different treatment to find out the results of students' learning interests in both classes, a post-test was carried out. The purpose of this activity is to compare and find out the differences in the differences that have been given to the two classes.

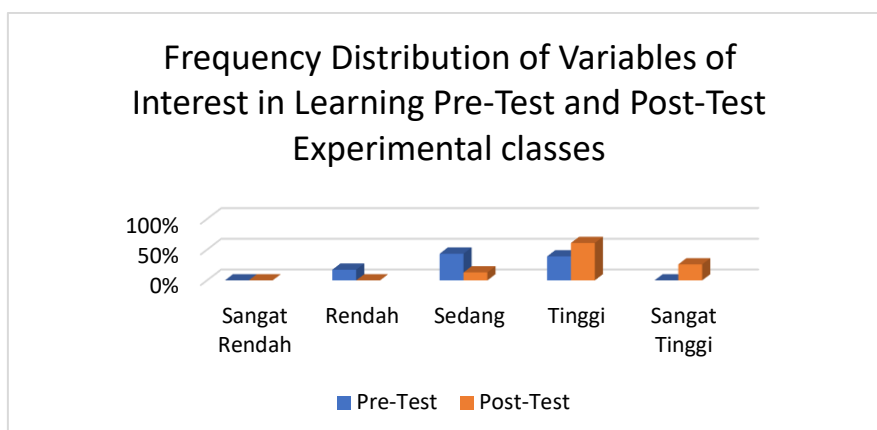
**Table 1 Descriptive Statistical Analysis Results**

	Descriptive Statistics						
	N	Range	Minimum	Maximum	Sum	Mean	Std. Deviation
PreTest Eksperimen	23	26	41	67	1260	54.78	7.880
PostTest Eksperimen	23	22	52	74	1457	63.35	5.449
PreTest Kontrol	23	28	32	60	1127	49.00	6.967
PostTest Kontrol	23	16	48	64	1296	56.35	4.687
Valid N (listwise)	23						

Based on the results of data processing using SPSS above, it can be seen that there is a difference in the average number between the experimental class and the control class. The average number of pre-tests performed in the experimental class was 54.78 while in the control class it was 49.00 with the Standard Deviation in the experimental pre-test class amounting to 7,880 and in the control pre-test class amounting to 6,967. The highest score obtained in the experimental pre-test class was 67 while in the control pre-test class it was 60. The lowest scores obtained in the experimental pre-test class were 41 and in the control pre-test class there were 32. From the two classes, it can be concluded that there is an average difference in the pre-tests that have been carried out.

In the table, to ensure a significant difference, the statistical value of students' learning interest in post-test data in the experimental class resulted in an average number of 63.35 while in the control class the average number was 56.35. With standard deviations in the experimental post-test class totaled 5,449 and in the control post-test class totaled 4,687. The highest score obtained in the experimental post-test class was 74 while in the control post-test class there were 64. The lowest score obtained in the experimental post-test class was 52 and in the control post-test class it was 48. Based on these data, it can be concluded that there are significant differences.

## Description of Variables of Interest Learning Experimental Class

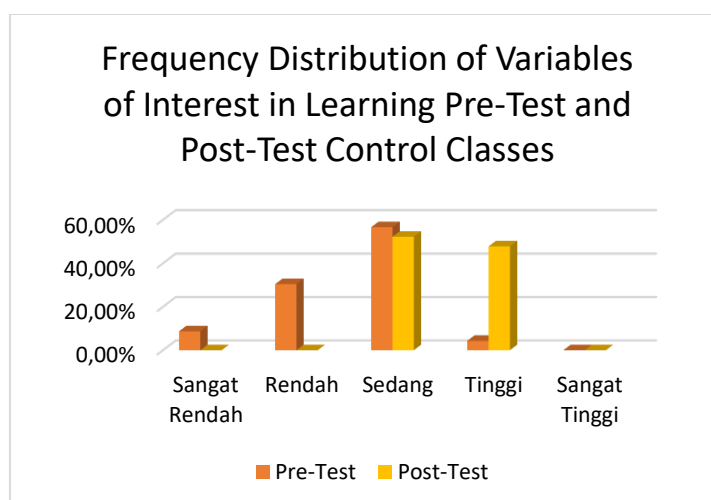


**Figure 1 Bar Diagram of Frequency Distribution variables Of Interest In Learning Pre-Test and Post-Test Experimental Class**

Based on the bar chart above, it can be interpreted that the interest in learning experimental class students during pre-test activities that fall into the category is very high as many as 0 students (0%), high as many as 4 students (17.4%), medium 10 students (43.5%), low 4 students (17.4%), and very low 0 students (0%). So it can be concluded that the learning interest of experimental class students during pre-test activities can be said to be moderate.

Meanwhile, the interest in learning experimental class students during post-test activities that fall into the category is very high as many as 6 students (26.1%), high as many as 14 students (60.9%), medium 3 students (13.0%), low 0 students (0%), and very low 0 students (0%). So it can be concluded that the interest in learning experimental class students during post-test activities can be said to be high.

## Description of Variables of Interest Learning Class Control



**Figure 2 Bar Diagram Of Frequency Distribution Variables Interest Learning Pre-Test and Post-Test Control Class**

Based on the bar chart above, it can be interpreted that the learning interest of control class students during the implementation of the pre-test who fall into the category is very high as many as 0 students (0%), high as many as 1 student (4.3%), medium 13 students (56.6%), low 7 students (30.4%), and very low 2 students (8.7%). So it can be concluded that the learning interest of control class students during pre-test activities can be said to be moderate.

Meanwhile, the interest in learning control class students during the implementation of the post-test which was included in the category was very high as many as 0 students (0%), high as many as 11 students (47.8%), medium 12 students (52.2%), low 0 students (0%), and very low 0 students (0%). So it can be concluded that the interest in learning control class students during post-test activities can be said to be high.

## RESULT AND DISCUSSION

### INFERENTIAL ANALYSIS

#### Normality Test

**Table 2 Normality Test Calculation Results with Shapiro Wilk**

		Tests of Normality					
		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
KELAS		Statistic	df	Sig.	Statistic	df	Sig.
HASIL MINAT BELAJAR	PreTest Eksperimen	.119	23	.200*	.955	23	.362
	PostTestEksperimen	.145	23	.200*	.966	23	.603
	PreTest Kontrol	.166	23	.101	.938	23	.162
	PostTestKontrol	.159	23	.138	.922	23	.072

\*. This is a lower bound of the true significance.

#### a. Lilliefors Significance Correction

Because the sample that the researchers used was 46, so to draw conclusions look at the Shapiro Wilk column. Based on the spss output results in the Shapiro Wilk column above, it can be concluded that the significance value (sig.) of the Experimental pre-test class is 0.362. This is more than the alpha value ( $\alpha$ ) of 0.05. It can be concluded that the students who are in the experimental pre-test class are sourced from a normally distributed population. In addition, the post-test of the Experimental class also obtained a significance value (sig.) of  $0.603 > 0.05$  from this it can be concluded that the population of the Experimental post-test class comes from a normally distributed population. In the pre-test of the Control class, the significance value (sig.) was  $0.162 > 0.05$ , meaning that the students who were in the Control pre-test class came from a population that had a normal distribution. Furthermore, in the Post-test Control class, the significance value (sig.) of  $0.072 > 0.05$  so that the students of the Control post-test class came from a normally distributed population.

## HOMOGENEITY TEST

**Table 3 Calculation Results of Pre-Test Homogeneity Test Experiments and Pre-Test Controls with Lavene**

**Test of Homogeneity of Variances**

		Levene Statisti c	df1	df2	Sig.
HASIL MINAT BELAJAR PRETEST	Based on Mean	.726	1	44	.399
	Based on Median	.865	1	44	.357
	Based on Median and with adjusted df	.865	1	43.226	.358
	Based on trimmed mean	.817	1	44	.371

Based on the results of the SPSS pretest test in the experimental class and the control class above, it can be concluded that the significance value (sig.) of the Based on Mean is 0.399 > 0.05, so that the variance of the two classes is the same (homogeneous).

**Table 4 Calculation Results of Post-Test Homogeneity Test Experiments and Post-Test Controls with Lavene**

**Test of Homogeneity of Variances**

		Levene Statistic	df1	df2	Sig.
HASIL MINAT BELAJAR POST TEST	Based on Mean	1.614	1	44	.211
	Based on Median	1.480	1	44	.230
	Based on Median and with adjusted df	1.480	1	43.786	.230
	Based on trimmed mean	1.646	1	44	.206

Based on the results of the post-test SPSS test in the experimental class and the control class above, it can be concluded that the significance value (sig.) of based on mean is  $0.211 > 0.05$ , so that the variance of the two classes is the same (homogeneous).

## HYPOTHESIS TEST

**Table 5 Hypothesis Test Results with Independent Sample t-Test.**

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
HASIL MINAT BELAJAR POST TEST	Equal variances assumed	1.614	.211	4.674	44	.000	6.913	1.479	3.932	9.894
	Equal variances not assumed			4.674	42.615	.000	6.913	1.479	3.930	9.897

Based on the results of hypothesis testing using SPSS above, a conclusion can be drawn in the equal variance assumed table in the part of the significance value of 2 tailed (Sig. 2-tailed)  $0.000 < 0.05$  which means that there is a difference between the control class and the experimental class regarding the interest in learning mathematics.

## DISCUSSION

The main purpose of this study is to find out the influence of students' interest in learning. in two groups of students who received different treatment. so researchers Knowing the initial condition of the students, the researcher conducted a pre-test for both classes. Based on data processed by researchers and researchers using the SPSS program, the pre-test data, showed significant differences between the experimental classes. control class. This suggests that class determination is for research purposes. Homogeneous (same) population. Help at times like this See students' progress during the learning process.

From the data from the research that has been carried out, there are differences in student learning interests between students who use wordwall web learning media and students who take part in learning with paper tests. This is in accordance with the opinion of Kemp & Dayton quoted by Azhar Arsyad, who explained that the use of learning media can make the subject matter presented more interesting. So that students' attention becomes more focused on the subject matter presented. This can increase students' interest in learning



(Arsyad, 2013). The learning medium used in this study is web wordwall. Web Wordwall is an educational and interactive game-based application. This application can be used as an interesting and exciting learning medium (Shiddiq, 2021). According to Ahmad Susanto, students' interest in learning is a very important factor in supporting the achievement of the effectiveness of the teaching and learning process, which in turn will affect the learning outcomes of the students concerned. Every teacher has an obligation to increase the interest in learning of his students. Because interest is an important component in education, as well as learning in the classroom in particular. As an example in the use of learning media (Susanto, 2021). The difference in learning interests experienced by students is found in mathematics subjects, where students become more interested in mathematics learning, follow learning with a feeling of pleasure, listen when the teacher listens, and study diligently even though there is no task from the teacher. This is in accordance with the indicators regarding student learning interests revealed according to Lestari and Mokhammad quoted by Rizki Nurhana Friantini and Rahmat Winata, including feelings of pleasure in learning, attention and concentrated thoughts towards learning, interest in learning, and student involvement (Friantini & Winata, 2019).

In answering the hypothesis about the difference in learning interests of students using wordwall web learning media with paper tests, the authors concluded that the average scores for the experimental post-test class were 63.35 and 56.43 which are the average for the control post-test class. From this it follows that the value is higher than the average value with the control class. So that from the data that has been obtained, a decision can be made that there is a difference in students' interest in learning when using wordwall web learning media compared to using a paper test in mathematics subjects in class 5 MI Ma'arif Patihan Wetan. Therefore, based on the hypothesis that researchers have compiled, it shows that the average student interest in learning after using wordwall web learning media is 63.35, while for classes that use paper tests, it is 56.43. Thus, it can be concluded that there are differences in the learning interests of students who use wordwall web learning media with paper tests in mathematics learning grade 5 MI Ma'arif Patihan Wetan. In addition to interest in learning, wordwall web learning media can also complete learning outcomes. This can be seen from the value of student learning outcomes between the experimental class and the control class where the percentage of student completion in the experimental class is 90% higher than the control class of 63.3%. In addition, the percentage of incomplete students in the experimental class was 10% lower than the control class which received an incomplete percentage of 36.7%.

In the discussion of the hypothesis that has been compiled by the author, the hypothesis obtained is positive, meaning that the hypothesis tested by the author meets the requirements for decision making that there are differences in student learning interests when using wordwall web learning media compared to the paper test. The implication of this research in the world of education, especially in the field of teacher training at Madrasah Ibtidaiyah, is that the use of wordwall web learning media can increase students' high interest in learning. However, changing learning patterns and integrating them with the right learning media is not an easy thing. Over time, when the learning process is applied practically and becomes a habit in the learning process, the Wordwall web learning medium will be easier to use by most students.

The limitation of the authors in this study is that the authors are only limited to studying students' learning interests. No in-depth study of learning outcomes has been carried

out. This can be followed up by subsequent researchers because learning outcomes are one of the benchmarks for learning success.

## CONCLUSION

Based on the results of the analysis conducted by researchers, it can be concluded that there are differences in student learning interests using wordwall web learning media and paper tests on mathematics learning conducted in grade 5 MI Ma'arif Patihan Wetan. This is reinforced by the calculation results on the hypothesis test which obtained a significance value of 2 tailed (Sig. 2-tailed)  $0.000 < 0.05$ . And there is a difference in the average post-test between the experimental class is 63.35 and the control class is 56.43. The value can be interpreted to mean that the average of the experimental class is higher than the average of the control class. So that the interest in learning students who use wordwall web learning media is higher than students who only use paper tests.

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