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THE IMPACT OF WORDWALL MEDIA ON STUDENTS' LEARNING ACHIEVEMENT AT STATE ELEMENTARY SCHOOL 0513 AEK LANCAT

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ABSTRACT

This research aims to evaluate the impact of using the Wordwall website for online quizzes on student learning outcomes in science subjects. The study employs a quantitative research method with a pre-experimental design, specifically a one-group pretest-posttest type. The population consists of all fourth-grade students at SD Negeri 0513 Aek Lancat, with a saturated sampling technique yielding a sample size of 20 students. Data collection was conducted using post-test multiple-choice questions. Hypothesis testing results indicate that Wordwall media significantly influences student learning outcomes, with $t = 5.546$ at $\alpha = 0.05$ and degrees of freedom df (n-1) = 21, where the t table value is 2.076. Thus, it can be concluded that Wordwall-based quiz media positively affects the science learning outcomes of fourth-grade students at SD Negeri 0513 Aek Lancat.

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INTRODUCTION

The low quality of teacher training in Indonesia is a problem that exists in this country. The low excellent of schooling in Indonesia is indicated by a loss of trainer abilities in the usage of virtual media as learning media substances. The generation of business revolution 4.0 emphasizes the importance of elaborating digital literacy which connects technological capabilities with studying with the purpose of presenting a advantageous affect on scholar learning effects.

Carrying out innovation in getting to know is a necessity that must be mastered by a teacher. In line with the ongoing need to face various challenges in the teaching and learning process, teachers as facilitators must be ready to continue learning, developing themselves and innovating in order to carry out their duties well (Minarta & Pamungkas, 2022). Also, a teacher needs to develop understanding and try various teaching techniques that he has not yet mastered, as well as experiment with various teaching methods and learning media to find an approach that is appropriate and effective for each student. There is a need for learning innovations that can be accessed via mobile devices or computers as an effort to improve student learning achievement. Science subjects are one of the basic sciences that students must master, and it is one among several topics that is without delay related to actual lifestyles (Nahdi et al, 2018). In the science learning process, it does not only emphasize the final product, but is also process-oriented which can be known through learning activities in the classroom. Science learning can take place effectively and efficiently by combining learning with technology by utilizing digital-based media.

Students' ability to answer each quiz in a subject is certainly not the same. This is something that a teacher needs to pay attention to, because the results of student learning are proof of a teacher's success in being able to provide students with an understanding of the material from each lesson. This is different from the general practice of teachers who often give assignments to be completed in exercise books without using digital media. (Hendra, 2023).

Based on observations in the field, teachers do not yet have laptops and there is not a single infocus unit available in the classroom. based on observations and looking at the condition of the SD Negeri 0513 Aek Lancat school. It was concluded that the use of technology in the learning process had not been made part of the learning activities.

Special interviews with teaching staff who are also class IV homeroom teachers provide a narrative that the majority of teachers have not implemented more creative and innovative digital-based learning. This is also in accordance with the narrative conveyed by the principal of SD Negeri 0513 Aek Lancat,

conveying that teachers often only use student handbooks as the main source to convey material from each lesson without utilizing additional supporting media. Likewise, in evaluating students, they often only use conventional methods.

Therefore, based on the learning method and evaluation system implemented at SD Negeri 0513 Aek Lancat, researchers chose a solution to this problem by using technology-based interactive quiz media via the WordWall software. Wordwall is a media that may be used to enhance science learning outcomes. Wordwall media itself is a media that can support innovative and creative processes (Faujiah, Septiani. A.N, Putri, & Setiawan, 2022).

Wordwall is an interactive learning media and offers a variety of games using technology such as smartphones or laptops. (Pasaribu, Agrasadya, Nina Shabrina, & Krisnaldy, 2020). Word Wall is an appropriate and effective medium for improving students' learning abilities. So that the application of Word Wall media in learning can provide increased quantity and quality for students (Turohmah, Elsa, & Resna, 2020)

Research regarding the use of wordwall media at SD Negeri 0513 Aek Lancat has never been carried out by any researcher. Research conducted by researchers regarding the use of interactive media based totally on wordwall quizzes focuses more on game quizzes to determine whether or not there is an influence of the use of interactive media based on wordwall quizzes at the mastering effects of class IV college students at SD Negeri 0513 Aek Lancat. consequently, researchers are interested in engaging in studies on this count number.

METHOD

This research is quantitative studies. Quantitative research is studies that makes use of data inside the shape of quantitative numbers, which permits for a generalization of the consequences, so that later they may be measured using numbers and analyzed the usage of statistical techniques (Abd.Mukhid, 2021). The research method used in this research is quantitative experimental design with Pre-Xperimental Designs. Pre-X experimental designs are experimental research

designs whose characteristics include that the classes used as research samples are not taken randomly, the sample group used is only one class and this research design does not have a control class (Ismail, 2018). The type of research design used is one-group pretest-posttest. The sample in the research consisted of 20 students. The sampling technique was carried out using a saturated sampling approach. Saturated sampling is a pattern dedication method while all participants of the populace are used as samples. The following is the only-group pretest-posttest design of this studies which is depicted in parent 1.

Parent 1. One-Group Pretest-Posttest Design

Pretest	Treatment	Cost-Test
0_1	X	0_2

Details:

0: Pre-Test before treatment is given

X: Providing treatment

0: Post Test after being given treatment

In the process, the initial activity is a pretest activity. Where in the pretest stage activities students are given pretest questions consisting of 10 questions. Then the stage after the pretest is the stage of providing treatment which is carried out over 3 meetings using wordwall media as a learning medium with metamorphosis material in science lessons. After students are given the requirements for 3 meetings. Next, they were tested again with posttest questions to decide modifications in student gaining knowledge of results after being given treatment using wordwall media. In this research, the researcher used to measure two variables, namely wordwall-assisted learning media because the impartial variable (x) and gaining knowledge of results because the established variable (y), the data collection technique used by the researcher was a test instrument which was divided into pretest and posttest.

To analyze the data, the researcher tested the validity of the questions, reliability, level of difficulty test, and test of differentiating questions as a research prerequisite with the help of Microsoft Excel and research data analysis techniques carried out normality, homogeneity and hypothesis testing with the assist of SPSS for home windows. Followed by testing the hypothesis, and drawing conclusions. A hypothesis is a temporary answer or conjecture that needs to be tested for truth (Zaki & Saiman, 2021). The hypothesis in this research is $H0$ = there's no impact of using wordwall getting to know media on student gaining knowledge of outcomes. meanwhile $H1$ = there is an influence of using wordwall learning media on pupil studying outcomes.

FINDINGS AND DISCUSSION

FINDINGS

Based on data on pretest and posttest scores using the Wordwall learning media in science subjects, animal life cycle (metamorphosis) material, the pretest was carried out before the learning media was used, while the posttest was carried out after the Wordwall learning media was used. The following are the results of the pretest and posttest scores in class. IV SD Negeri 0513 Aek Lancat is a class that was tested initially with pretest questions, then received wordwall learning media treatment and tested again with posttest questions to determine whether there was an increase in learning outcomes. So it can be seen in table 1. the difference in the results of the pretest and posttest scores.

Table 1. Data on Pretest and Posttest Values

Student's Name	Mark Pre-Test	Mark Post-Test	Information
S1	50	70	Increase
S2	60	80	Increase
S3	40	80	Increase
S4	50	60	Increase

S5	60	80	Increase
S6	80	90	Increase
S7	60	70	Increase
S8	20	80	Increase
S9	50	80	Increase
S10	30	80	Increase
S11	50	80	Increase
S12	40	80	Increase
S13	50	70	Increase
S14	50	80	Increase
S15	50	70	Increase
S16	60	90	Increase
S17	70	80	Increase
S18	70	80	Increase
S19	10	70	Increase
S20	40	90	Increase
S1	20	80	Increase
S22	50	90	Increase

Based on the data from Table 1, the consequences of the pretest and posttest rankings display an growth in rankings. Then the results of the pretest and posttest scores are also offered in the shape of a frequency desk according to desk 2 and table 3.

Table 2. Pretest Frequency Distribution

Interval Class	f_i	*Fk*	x_i	$f_i.x_i$	$(x_i - \bar{x})$	$(xi - \bar{x})^2$	$f_i\,(x_i - \bar{x})^2$
10-21	3	3	15,5	46,5	-33,4	1115,56	3346,64
22-33	1	4	27,5	27,5	-21,4	457.96	457,96
34-45	3	7	39.5	118,5	-9,4	88,36	265,08
46-57	8	15	51.5	412	2,6	6,76	54,32
58-69	4	19	63,5	254	14,6	213,16	842,64
70-81	3	22	75,65	226,5	26,75	715,56	2146,68

n =22	7113,29

Based on the statistics from Table 2, the distribution of student scores is as follows: three students scored in the interval 10-21, one student scored in the interval 22-33, three students scored in the interval 34-45, eight students scored in the interval 46-57, four students scored in the interval 58-69, and four students scored in the interval 70-81. From this data, it can be seen that the highest number of scores, with a total of eight students, fell within the interval 46-57

Table 3. Posttest Frequency Distribution

Interval Class	f_i	*Fk*	x_i	$f_i.x_i$	$(x_i - \bar{x})$	$(xi - \bar{x})^2$	$f_i\ (x_i - \bar{x})^2$
60-64	1	1	92	92	13,37	178,7569	178,7569
65-69	-	-	-	-	-	-	-
70-74	5	6	109,5	547,5	30,87	951,1047	4755,5235
75-79	-	-	-	-	-	-	-
80-84	12	18	122	1464	43,37	1.880.9569	33.857224
85-90	4	22	129,5	518	50,87	2.587,75659	10.3551026
n =22							4978,492766

Based on the data from Table 3, the distribution of student scores is as follows: one student scored in the interval 60-64, no students scored in the interval 65-69, five students scored in the interval 70-74, twelve students scored in the interval 75-79, twelve students scored in the interval 80-84, and four students scored in the interval 85-90. From this data, it can be seen that the most common score interval was 80-84, with a total of twelve students.

Normality

The normality test is conducted to determine whether the sample taken comes from a normally distributed population. The normality test used in this study was the Lilliefors test. If Lcount < Ltable, the data is normally distributed. If Lcount ≥ Ltable, the data is not normally distributed. In this study, the significance level was set at 5% or α=0.05. The following are the results of the pre-test and post-test normality tests.

Table 3. *Pretest* And *Posttest* Normality Test

Information	Pretest	Posttest
Average	48.18	78.63
Standard deviation	17.08	15.04
Lcount	1,139	0.808
Ltable (α =0.05)	0.190	0.190
Lcount< Ltable	Normal	Normal

Primarily based at the facts effects in desk 4.7, it is able to be concluded that the effects of the normality take a look at at the pretest value received a calculated l price of one.139 while the l desk value changed into 0.190. And in the posttest value, the Lcount value was 0.854, while the Ltable value with alpha (α) = 0.05 with a value of 0.190. So, it can be concluded that the pretest and posttest data have a normal distribution.

Homogeneity

Table 4. Homogeneity

Fcount	2,147
Table	2,080
α	0,05 (5%)
Fcount< Ltable	Homogeneous

Based on the results of the table above, a value of Fcount = 2.147 and Ftable = 2.080 is obtained in accordance with the criteria for testing homogeneous data. If Fcount < Ftable, namely 2.147 < 2.080. So the data from both pretest and posttest samples have homogeneous variance.

Hypothesis

hypothesis checking out is carried out to test whether the proposed hypothesis is accepted or rejected. The hypothesis test used is the t test formula. The test criteria are if tcount < ttable, then H0 is accepted and if tcount > ttable, then H1 is regularly occurring.

Table 5. Hypothesis Testing

n	22
df= n-1	22-1 =21
α	0,05
tcount	5,546
ttable	2,076

Based at the effects in table 5. For this reason, tcount = 5.546 with α = 0.05 with stages of freedom df (n-1) = 22-1= 21, so we get ttable = 2.076. From the test standards in table 4.9, h0 is rejected or ha is ordinary, that there's a power of the wordwall quiz software at the learning effects of class iv students at sd negeri 0513 aek lancat.

DISCUSSION

The descriptive analysis revealed that the average pretest score for students on the metamorphosis material in science was 48.18, indicating a need for improvement in the learning outcomes of class IV students at SD Negeri 0513 Aek Lancat. To address this, a training program using the Wordwall quiz was implemented to enhance student learning. After this intervention, the average posttest score increased significantly to 78.63. This improvement from 48.18 to 78.63 suggests that the Wordwall quiz effectively enhanced student learning outcomes.

To test the hypothesis, the calculated t-value was 5.546, which, when compared to the t-table value at a 5% significance level (with a 95% confidence level and degrees of freedom (df) = N-1 = 22-1 = 21 yielded a t-table value of 2.076. Since the calculated t-value (5.546) is greater than the t-table value (2.076), the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted. This indicates that the Wordwall quiz application had a significant positive effect on the learning outcomes of class IV students at SD Negeri 0513 Aek Lancat

CONCLUSION

Based on research that has been conducted, one class group was given a pretest question and after being given a treatment using the wordwall quiz media. So, comparing the results of students' scores before and after being given a treatment using the wordwall quiz media shows a significant increase in scores. Students who usually take quiz questions only use the confidential method, where students are initially more passive and feel unable to answer each question item. However, when students are introduced to the wordwall quiz media, students become more enthusiastic and become active in answering each quiz question given because the students seem to find it fun to answer each quiz question according to the sticker on the wordwall website. Therefore, it can be concluded that using the Wordwall quiz media positively impacts the science learning outcomes of class IV students at SD Negeri 0513 Aek Lancat.

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