

THE EFFECTIVENESS OF USING WORDWALL.NET AS WEB-BASED LEARNING TO ENRICH THE VOCABULARY OF THE EIGHTH-GRADE STUDENTS AT SMP NEGERI 1 TOMBARIRI

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Abstract: The objective of this research was to examine the effectiveness of utilizing wordwall.net as a web-based learning tool to enrich the vocabulary of the eighth-grade students at SMP Negeri 1 Tombariri. The primary inquiry of this research was: Can the use of wordwall.net be considered effective in enriching the vocabulary of the eighth-grade students at SMP Negeri 1 Tombariri? This research employed quantitative research, with quasi-experimental design. The subject of this research focused on eighth-grade students at SMP Negeri 1 Tombariri in class 8C, designated as the controlled class, and 8D, designated as the experimental class. The data were collected by a pre-test and post-test, which employed distinct questions but utilized the same test grid. The data analysis indicates a significant difference in the overall scores of the pre-test between the experimental class (1.255) and the controlled class (1.020). Meanwhile, the post-test total score indicated that the controlled class achieved a score of 1.395, while the experimental class achieved a score of 1.885. This research assessed the effectiveness of wordwall.net when implemented in the experimental classroom using the independent sample t-test feature of IBM SPSS software version 26. The utilization of wordwall.net demonstrated a significant impact, as indicated by a 2-tailed p-value of 0.001, which is less than the threshold of 0.050. The alternative hypothesis (H_a) has been affirmed, whereas the null hypothesis (H_0) has been refuted. Thus, it can be inferred that the use of wordwall.net was considered effective in enriching students' vocabulary.

Keywords: *Wordwall.net, Web-Based Learning, Vocabulary, EFL*

INTRODUCTION

The acquisition and instruction of vocabulary are crucial in the process of language learning and teaching. As Thornbury (2002) asserts, "Without grammar, very little can be conveyed. Without vocabulary, nothing can be conveyed." This

means that without a solid knowledge of grammar, students cannot communicate effectively, and without a good vocabulary, students cannot convey their thoughts well. Thus, vocabulary is crucial. Vocabulary plays a crucial role in language acquisition as it forms the basis for students to communicate proficiently in speaking, listening, reading, and writing (Richards & Renandya, 2002). Therefore, students who have a strong vocabulary will quickly master language skills. Students with limited vocabulary, on the other hand, will struggle to understand texts, speak English, and write down their ideas.

A successful learner in enriching vocabulary will be achieved depending on the teacher's teaching methods in English class (Alpatikah, 2022). Andries, et al. (2019) states "To ensure that our students are successful in the four skills of listening, speaking, reading, and writing, we must be clever and innovative in creating engaging instructional materials." Teachers should plan their methods before teaching to assume learners gain the objectives of language learning at the end of class. In the present period of progress, the field of education is becoming more crowded with the use of different learning tools, leading to new attempts to incorporate technology advancements into the process of teaching and learning (Liando & Martha, 2019).

To assist language learners in expanding their vocabulary, teachers should integrate current teaching practices with their students' interests. Web-based learning incorporates a related concept of technique teaching, which mixes vocabulary development with high technology and online games. Web-based learning is a long-distance teaching-learning process that uses web as the main instrument (McKimm & Cantillon, 2003). There are several web tools media for learning English, such as Quizlet, Kahoot, Padlet, and others, but there is a specific web tool that presents some games in it while learning, Wordwall.net. As a part of education games, Worldwall.net offers a variety of interactive games to train vocabulary. This website provides teachers with the ability to generate their own games using pre-designed formats, as well as access and utilize games created by other educators (Çil, 2021).

Based on the explanation above, the researcher has eager to do research about the effect of using Worldwall.net as a web-based learning media for students' vocabulary acquisition. The researcher made an experimental research to know whether or not it is effective to use Worldwall.net as Web-based Learning to enrich

the vocabulary of the eighth-grade students in SMP Negeri 1 Tombariri. The research title is "The Effectiveness of Using Word-wall Online Games as Web-based Learning to Enrich the Vocabulary of the Eighth Grade Students at SMP Negeri 1 Tombariri."

RESEARCH METHOD

This study employed a quantitative method. Quantitative research has three kinds of designs which are experimental research, correlational research and survey research. This research used experimental as the research design. Experimental design, as known as group comparison studies, is a procedure that research determines whether an activity makes a difference in results for participants (Creswell, 2012). This design involved the division of the group into an experimental class and a controlled class. In the experimental class, the students received the treatment, but the students in the control class did not get the treatment. This research focused on giving treatment to the experimental class by applying wordwall.net and text-file explanation to the control class. Afterward, the researcher observed the result through test.

Subject of the Research

This research chosed the eighth-grade students at SMP Negeri 1 Tombariri as the population. For sample, the researcher took 56 students that came from two classes: 8C (28 students) as the controlled class and 8D (28 students) as the experimental class.

Instrument of the Research

Creswell (2012) defines an instrument as a device employed for the purpose of quantitatively measuring, observing, or documenting data. The instrument utilized in this study is the test. The examination was divided into a preliminary assessment and a final assessment. The test consisted of 20 questions. Prior to students undergoing the treatment, a pre-test is conducted to ascertain their level of accomplishment. Students are administered a post-test to ascertain their level of achievement subsequent to undergoing treatment.

Data Collection

At the initial meeting, the researcher administered a pre-test to the students in order to assess their capacity to distinguish between the experimental and controlled class. During the pre-test, the researcher delivered a set of 20 queries to the pupils. Following the pre-test, the researcher implemented the treatment phase by utilizing wordwall.net as a medium for teaching and learning in the experimental class, and text-file as a traditional medium for teaching and learning in the controlled class.

Both the experimental and controlled class underwent the post-test. The experimental class utilized the wordwall.net website as a means to educate students on enhancing their vocabulary. To get the required data for the daily assessment, the researcher administered a set of 20 questions that were identical to those used in the pre-test.

Data Analysis

The data analysis approach employed in this research will utilize statistical analysis methods like normality testing, homogeneity testing, and t-tests. The statistical analyses were conducted in many steps. Firstly, the data was subjected to a normality test to assess its distribution. Next, a homogeneity test was performed to evaluate the equality of variances. Finally, a t-test was conducted to compare the pre-test and post-test results of each group (control and experiment class) and determine any significant differences. The calculation was performed using IBM SPSS software version 26.

FINDINGS AND DISCUSSION

Data Description

The researcher acquired the data outcome of students' vocabulary proficiency by conducting pre-test and post-test assessments in both classrooms. The test evaluations were conducted in both the control and experimental courses. Additionally, the subsequent part will provide an explanation of the test result to determine the effectiveness of wordwall.net in enriching students' vocabulary.

Table 1. Pre-test and Pots-test Score of Experimental Class

No.	Sample	Pre-test Score	Post-test Score
1.	Student AK	40	65
2.	Student ALK	45	70
3.	Student AS	50	40
4.	Student CA	75	85
5.	Student CM	15	60
6.	Student CK	25	60
7.	Student FB	40	35
8.	Student FRB	35	55
9.	Student GT	55	55
10.	Student IW	50	65
11.	Student JK	30	70
12.	Student JW	30	80
13.	Student JM	65	95
14.	Student KT	30	80
15.	Student MJ	65	75
16.	Student MN	30	70
17.	Student NM	50	60
18.	Student PK	80	95
19.	Student PM	55	65
20.	Student RM	40	55
21.	Student RL	55	55
22.	Student RM	30	70
23.	Student RS	35	50
24.	Student SM	25	60
25.	Student VR	70	95
26.	Student VS	85	85
27.	Student VL	60	95
28.	Student VIL	40	40
Total		1.255	1.885

Table 1. presents the results of the pre-test and post-test assessments for the experimental class. The table indicates that the experimental class achieved a maximum pre-test score of 85 and a minimum pre-test score of 15. The experimental class achieved a maximum post-test score of 95 and a minimum score of 35.

Table 2. Pre-test and Pots-test Score of Controlled Class

No.	Sample	Pre-test Score	Post-test Score
1.	Student AG	35	40

2.	Student AUG	20	30
3.	Student CD	25	40
4.	Student CL	20	35
5.	Student DW	35	50
6.	Student DK	65	75
7.	Student FP	90	95
8.	Student FK	25	60
9.	Student FI	40	50
10.	Student FO	30	65
11.	Student FM	55	60
12.	Student FW	50	70
13.	Student GL	30	55
14.	Student HL	50	45
15.	Student JK	35	50
16.	Student JL	25	35
17.	Student JP	20	35
18.	Student LA	30	45
19.	Student MK	45	50
20.	Student ABS	30	35
21.	Student NS	20	25
22.	Student OW	45	45
23.	Student PH	20	45
24.	Student PS	55	70
25.	Student SS	40	55
26.	Student SM	10	25
27.	Student TP	45	75
28.	Student YL	30	35
Total		1.020	1.395

The data shown in Table 2. illustrates the results of the pre-test and post-test in the controlled class. The table indicates that the controlled class achieved a maximum pre-test score of 90 and a minimum pre-test score of 10. The controlled class had a post-test with a peak score of 95 and a lowest score of 25.

Data Analysis

This study included a T-test analysis conducted using IBM SPSS software version 26. Prior to conducting a T-test, it is necessary to assess the data for normality and homogeneity. Both the pre-test and post-test conducted in both the experimental and controlled classes will ascertain if the data is conveyed in a normal and homogenous manner. The outcome of data analysis may be observed as follows:

Table 3. The Normality Test of Pre-Test in Experimental and Controlled Class

		Tests of Normality					
		Kolmogrov-Smirnov ^a			Shapiro-Wilk		
Class		Statistic	df	Sig.	Statistic	df	Sig.
Pre test Result	Experimental Class	.143	28	.150	.960	28	.344
	Controlled Class	.149	28	.115	.911	28	.021

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

a. Lilliefors Significance Correction

According to Table 3., the experimental class had a significance value of 0.150 for the Kolmogorov-Smirnov test, whereas the controlled class had a significance value of 0.115. Both significance levels are more than 0.05, with the experimental class at 0.150 and the controlled class at 0.115. Given that the significance value is greater than or equal to 0.05, it may be concluded that the pre-test data in both the experimental and controlled classes follow a normal distribution.

Table 4. The Normality Test of Pre-Test in Experimental and Controlled Class

		Tests of Normality					
		Kolmogrov-Smirnov ^a			Shapiro-Wilk		
Class		Statistic	df	Sig.	Statistic	df	Sig.
Post-test Result	Experimental Class	.114	28	.200*	.959	28	.3
	Controlled Class	.139	28	.180	.948	28	.1

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

a. Lilliefors Significance Correction

Table 4. indicates that the Kolmogorov-Smirnov significance value for the experimental class was 0.200, whereas for the controlled class it was 0.180. The significance values in the experimental class were above 0.050, while the significance values in the controlled class were likewise above 0.050. Since the significant values exceed 0.050, it may be concluded that the post-test data in both the experimental and controlled classes follow a normal distribution.

Following the calculation of the normality test, the data will undergo a homogeneity test to determine the similarity of the pre-test and post-test results in both the experimental and controlled classes. The researcher employed the Levene Statistic in IBM SPSS software version 26 to conduct the homogeneity test analysis. The analysis may be regarded as follows:

Table 5. The Homogeneity Test of Pre-Test

		Tests of Homogeneity of Variances			
		Levene			
		Statistic	df1	df2	Sig.
Pre-test Result	Based on Mean				.
		.612	1	54	.438
	Based on Median				.
		.597	1	54	.443
	Based on Median and with adjusted df	.597	1	53.6	.443
	Based on trimmed mean				.
		.722	1	54	.399

From Table 5., the result study from pre-test in experimental and controlled class based on mean in significance was 0.438. This data proved that the pre-test score is homogeneous, because the significance value was higher than significance α (significance level) = 0.05. It means that the pre-test data in the experimental and controlled class is homogeneous.

Table 6. The Homogeneity Test of Pre-Test

		Tests of Homogeneity of Variances			
		Levene			
		Statistic	df1	df2	Sig.
Post-test Result	Based on Mean				.722
		.128	1	54	.722
	Based on Median				.762
		.093	1	54	.762
	Based on Median and with adjusted df	.093	1	53.740	.762
	Based on trimmed mean				.711
		.139	1	54	.711

The significance value derived from the mean in Table 6. was 0.722. Furthermore, the study found that the post-test results in both the experimental and controlled classes were statistically significant, with a significance level of $\alpha = 0.05$. The data of the post-test in both the experimental and controlled classes were found to be homogenous, as shown by the significant value of 0.722, which is more than 0.05.

The next step is calculating the t-test of the result study to test the hypothesis after knowing the data normality and homogeneity distributed. This measurement intended to ensure a significant difference in using wordwall.net to enrich students' vocabulary. Like the previous calculations, the researcher also used IBM SPSS version 26 to calculate t-test.

Table 7. The Homogeneity Test of Pre-Test

Group Statistics					
	Class	N	Mean	Std. Deviation	Std. Error Mean
Post-test Result	Experimental Class	28	66.79	18.064	3.414
	Controlled Class	28	49.82	16.804	3.176

Table 7. showed that the differences result of post-test from experimental class and controlled class. With the same participants in both classes, 30 students, experimental class got 66.79 as the mean score of post-test, while controlled class got 49.82 as the mean score of post-test. Comparing the mean value, experimental class has higher score than controlled class. Furthermore, detail calculation of t-test will be explained as follow:

Table 8. The Homogeneity Test of Pre-Test

Independent Samples Test										
		Levene'sm Test for Equality of Variances				t-test for Equality of Means				
Post-test Result	Equal variances assumed	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post-test Result	Equal variances assumed	.128	.722	3.638	54	.001	16.964	4.663	7.616	26.312
	Equal variances not assumed			3.638	53.720	.001	16.964	4.663	7.615	26.313

The outcome of the independent sample test is presented in Table 8. Due to the homogeneity of the post-test data, the researcher emphasized the significance of the

sig α value of 0.05 (5%). The results presented in Table 4.8 demonstrate the impact of the independent sample t-test. The two-tailed p-value or significance value was found to be 0.001, which is below the threshold of 0.050. Therefore, it may be inferred that the null hypothesis (H_0) was disproven, and the alternative hypothesis (H_a) was supported. The conclusion was reached because the p-value (2-tailed) was lower than the significance level α , with a value of $0.001 < 0.050$. Therefore, it can be said that there is any significance effect of using wordwall.net to enrich students' vocabulary.

Discussion

The analysis of the independent sample test measurement, as shown in Table 4.8, reveals that the Sig. (2-tailed) value was 0.001, which is below the significance threshold of 0.05. The result indicated that $p < \alpha$ ($0.001 < 0.05$), leading to the rejection of the null hypothesis (H_0) and acceptance of the alternative hypothesis (H_a). Therefore, it can be concluded that utilizing wordwall.net has a notable impact in enriching students' vocabulary.

According to the calculations above, using wordwall.net had a significant effect in enriching students' vocabulary. Wordwall.net is an online platform that enables students to engage in enjoyable learning experiences through interactive games on their personal devices. The individuals involved in the experimental and controlled class were in the early adolescence stage, approximately between the ages of 12 and 14. According to Tootell et al. (2014), students in that age group exhibit a high level of interest in online games due to their extensive exposure to digital technology in their daily lives. The participants were born between the years 2008 and 2010, placing them in the Alpha Generation, as classified by McCrindle (2021).

Furthermore, the students' ability to enrich their vocabulary is a direct result of their diligent efforts in completing the activities. Students were not required to consult a dictionary before to playing the game, as they had the opportunity to acquire new vocabulary throughout the course of the game. Despite initially finding the game challenging due to their limited vocabulary, the students persevered and were motivated to complete and succeed in the game. Student motivation is a contributing factor to the potential enhancement of vocabulary richness through the use of

wordwall.net. This platform has the ability to deepen students' knowledge by engaging them in online gaming activities (Malone & Lepper, 1987).

In addition, utilizing wordwall.net as an online educational platform provided students with an opportunity to alleviate their boredom while studying tasks. The learning approach utilized was web-based, wherein students acquired new vocabulary through online gaming on a website. By selecting the suitable game templates on the wordwall.net website, the content of the game will be effectively conveyed.

Overall, the findings of this study support Çil (2021) assertion that students' vocabulary knowledge was improved by using wordwall.net, as seen by the considerable disparities between the two groups' pre and post-treatment vocabulary. This is in line with the results of Fakhruddin, et al. (2021), who found that the students' vocabulary increased as well. This website helps students apply their newly acquired vocabulary and improves their perceptions of utilizing the internet to teach vocabulary. It is conceivable that other learning domains will make use of this online resource. Through active participation in the learning process and comprehension of the provided content, wordwall.net serves as a medium that heightens students' interest in the educational process.

CONCLUSION

This study employed a quantitative method with a quasi-experimental design to collect data on the effectiveness of utilizing wordwall.net in enriching students' vocabulary at SMP Negeri 1 Tombariri during the odd semester of the 2023/2024 academic year. Based on the findings of the study, the overall score of the experimental group increased from 1.255 to 1.885 after receiving therapy through the utilization of the wordwall.net website. Furthermore, the overall score of the controlled class similarly increased from 1.020 to 1.395 after receiving therapy through the use of a textbook without the wordwall.net platform. In addition, the computed Sig. (2-tailed) value in the results section was 0.001, which is lower than the alpha score of 0.050. The null hypothesis (H₀) was refuted and the alternative hypothesis (H_a) was affirmed. This study found that using wordwall.net in enriching

students' vocabulary at SMP Negeri 1 Tombariri students in 2023/2024 academic year is much more effective compared to not using it.

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