



The Effect Of Using Wordwall On Students' Vocabulary Mastery At The Eighth Grade Of SMP N 1 Pinggir

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ABSTRACT

The purpose of this study was to investigate the effect of using Wordwall on students' vocabulary mastery at the eighth grade of SMP N 1 Pinggir. This research employed a quasi-experimental design. The population consisted of eighth-grade students at SMP N 1 Pinggir. The population in this study were eighth grade student who were divided into several classes total 241 students. The papers were then folded and placed in a container. Through a random draw, class VIII -6 was selected as the control class to the turn of 36 participants, and class VIII -7 was selected as the experimental class to the turn of 36 participants.. The experimental group was taught vocabulary using Wordwall, while the control group received conventional teaching without Wordwall. Data were analyzed using SPSS 27. The results showed that the significance value (sig) was 0.000, which is less than 0.05. Therefore, the null hypothesis was rejected and the alternative hypothesis accepted.

This indicates that there was a significant difference in vocabulary mastery between the students before and after being taught using Wordwall, as well as between the experimental and control groups.

Introduction

Vocabulary is one of the fundamental aspects of language mastery, playing a critical role in the development of speaking, reading, writing, and listening skills. Students have been learning vocabulary since their early years of education, yet mastery of vocabulary remains a significant challenge for many, particularly in secondary schools. Vocabulary mastery, according to (Meara, 1993), involves the ability to understand, recall, and use words effectively. A strong vocabulary allows students to comprehend texts, construct sentences, and communicate effectively. However, many eighth-grade students at SMP N 1 Pinggir face substantial difficulties in improving their vocabulary, which negatively impacts their overall language proficiency. Since vocabulary learning is vital for academic success, it is necessary to adopt approaches that support comprehension and communication across all language skills.

To make vocabulary learning effective and engaging, teachers need to adopt innovative strategies. One promising medium is Wordwall, an interactive online platform that incorporates activities such as quizzes, word-matching games, and other exercises. Wordwall creates a dynamic learning environment that can increase students' motivation and help them retain new vocabulary more effectively. As noted by (Aribowo, 2021), Wordwall's ability to create custom quizzes and interactive activities makes it a valuable tool for supporting vocabulary acquisition. Despite its potential, challenges remain. During an interview with an English teacher at SMP N 1 Pinggir in January 2025, several difficulties were observed:

- Some students struggled to understand English texts due to limited vocabulary.
- Some were unable to construct grammatically correct sentences because they lacked essential vocabulary.
- Many frequently made spelling errors, such as omitting or miswriting letters.
- Some students found it difficult to recall new vocabulary even after being taught.

Based on these observations, the researcher is interested in examining “The Effect of Using Wordwall on Students’ Vocabulary Mastery at the Eighth Grade of

SMP N 1 Pinggir.

Wordwall Application

Wordwall is a versatile and interactive digital platform that provides teachers with customizable learning activities in the form of educational games. It allows educators to design quizzes, matching tasks, and interactive exercises that support specific learning objectives and adapt to classroom contexts. As highlighted by (Aribowo, 2021), the flexibility of Wordwall lies in its capacity to create tailored vocabulary practices that both engage students and offer immediate feedback. This interactivity makes it particularly effective for enhancing vocabulary mastery, as students are encouraged to actively participate in the learning process rather than passively memorizing word lists.

Although Wordwall offers a wide range of templates, this study focused on four types of activities that were considered most effective for vocabulary development:

- **Matching Games:** Students matched words with definitions, synonyms, antonyms, or pictures, strengthening word association and contextual understanding.
- **Anagram:** Learners unscrambled letters to form correct words, which fostered spelling skills and pattern recognition.
- **Sentence Construction:** Students used vocabulary items in grammatically correct sentences, enabling them to apply new words in meaningful contexts and improving sentence structure.
- **Unjumble:** Learners rearranged scrambled words or sentences into correct forms, reinforcing grammar, syntax, and analytical thinking.

These four activity types were selected because they combine memorization with practical application, encouraging students to engage cognitively while interacting with vocabulary.

Some of the advantages of wordwall, According to Carberry (2010), the advantages of word wall are:

- 1) Provide an approach to meaningful teaching of vocabulary with an emphasis on student engagement and higher level thinking skills.
- 2) Build vocabulary, thereby improving reading comprehension and writing style.
- 3) Reinforce understanding of subject-specific terminology with a focus on students internalizing key concepts.

- 4) Help students improve spelling and awareness of spelling patterns.
- 5) Provide visual cues for students.
- 6) Encourage student independence when reading and writing.

There is very limited number of literature talking about the disadvantages of word wall strategy. The only source from Nurhamida (2022) that said “learning use word wall method will require a long time and needs a lot of equipment and colors. Imagination and creativity needed to produce good word wall”



Source: the researcher's picture

In the context of educational media, Wordwall can be classified as an interactive digital medium that supports language learning. Media, as defined by (Arsyad, 2011), are tools that bridge the gap between abstract concepts and student understanding through various forms such as visuals, audio, and interactivity. Within this framework, Wordwall functions as an interactive medium that allows learners to engage with vocabulary through digital activities that combine both visual and kinesthetic elements.

Unlike traditional printed media that present information in a static form, Wordwall offers dynamic and game-based learning experiences. Its interactive templates, such as matching, anagrams, sentence construction, and unjumble, transform abstract vocabulary items into engaging and concrete tasks. This aligns with Azar (2011) perspective that media should make learning more participatory

and motivating, as students actively respond to the tasks instead of passively receiving information.

From the standpoint of media advantages, Wordwall embodies many of the strengths identified by (Tayirova, 2023). It facilitates individualized learning, encourages student autonomy, and integrates multiple forms of media—text, images, sound, and animation— into a single platform. This multimodal approach is especially beneficial in vocabulary learning, where students must not only memorize words but also use them in meaningful contexts.

However, when viewed critically as media, Wordwall also reflects common limitations. Its reliance on digital infrastructure makes it less accessible in classrooms with poor internet connectivity or limited technological resources. Furthermore, Nurhamida (2022) emphasizes, the design of effective Wordwall activities requires time, creativity, and teacher training, which may pose challenges for implementation.

Vocabulary Mastery

Vocabulary is a fundamental component of language learning and plays a central role in the development of the four core skills: listening, speaking, reading, and writing. Richards & Renandya (2002) highlight that vocabulary provides much of the foundation for students' ability to use language effectively across these skills. Unlike grammar, which is rule-based, vocabulary learning is primarily a matter of remembering and recalling words, requiring effective strategies for storage and retrieval in long-term memory (Thornbury, 2004).

A broad vocabulary allows learners to comprehend texts, express ideas clearly, and perform successfully in academic contexts. Conversely, limited vocabulary often hinders communication and comprehension, leaving students unable to convey ideas, answer questions, or engage fully in language use (I. S. P. Nation, 2001). Thus, vocabulary mastery is not only crucial for everyday communication but also for achieving success in language tests and broader academic tasks.

Meara (1993) explains that vocabulary mastery extends beyond memorizing words, encompassing knowledge of meanings, nuances, and correct usage in different contexts. P. Nation & Newton (1997) further emphasize that vocabulary learning involves understanding pronunciation, form, and how words function within sentences. A strong command of vocabulary therefore equips learners with the ability to engage in meaningful communication and comprehend both spoken

and written texts effectively.

Types of Vocabulary

Vocabulary can be categorized into two primary types: receptive vocabulary, which consists of words learners recognize while reading or listening, **and** productive vocabulary, which includes words they can actively use in speaking and writing (Erisusanti & Syamsidar, 2023). Aebbersold & Field (1997) similarly distinguish between active vocabulary (words learners can pronounce, understand, and use appropriately) and passive vocabulary (words recognized but not actively produced). I. S. P. Nation (2008) also identifies four further categories: high-frequency words, academic words, technical words, and low-frequency words, each essential in different domains of language use.

Aspects of Vocabulary

According to Gower et al., (2005), vocabulary learning involves three key aspects: **form** (pronunciation, spelling, and word parts), **meaning** (understanding the concept and contextual variations of words), and **use** (grammatical roles, collocations, and pragmatic functions). Mastery of these aspects ensures that learners not only know words but also apply them effectively in real communication.

Importance of Vocabulary

I. S. P. Nation (2001) identifies vocabulary as the primary foundation of communication, academic success, and second language learning. Without sufficient vocabulary, communication becomes limited, comprehension is impaired, and academic performance suffers. Vocabulary also plays a crucial role in reading comprehension, as readers with wider vocabularies can more easily process and understand texts. Effective strategies such as repetition, contextual learning, and association are therefore necessary to promote long-term vocabulary retention.

Teaching and Learning Vocabulary

Vocabulary teaching, once considered secondary to grammar and other language aspects, is now recognized as central to second language acquisition (Richards & Renandya, 2002). Stahl (2005) argues that students need multiple encounters with words in varied contexts to fully integrate them into long-term memory. Similarly, Fauziati (2005) notes that effective vocabulary instruction requires diverse strategies such as semantic mapping, contextual learning, and the use of media like Wordwall to create engaging, interactive opportunities for repeated exposure.

Method

The research approach used by the researcher is a quantitative approach. While the quantitative approach is numerical research data and statistically analyzed to find answers to the formulation of research problems. The method used by the researcher is the quasi-experimental method. According to (Sugiyono, 2019), A quasi-experiment is a design that has a control group, but cannot fully control the external variables that affect the execution of the experiment. The research design used by the researcher is a the quasi-experimental in the form of a group, pre-test, and post-test design. The research includes quasi-experimental research by quantitative research. The researcher used a research design in the form of a non-equivalent pretest-posttest experimental-control group design.

The research was conducted at SMP N 1 Pinggir in the academic year 2024/2025. The research was conducted on March 2025 to May 2025. To select the sample, the researcher used the cluster random sampling technique (Creswell et al., 2014), a method in which groups or clusters are randomly selected rather than individual participants. This approach was deemed appropriate because the eighth-grade classes were already pre-formed and could not be randomly assigned at the individual level.

In this study, the researcher prepared papers, each labeled with the name of an eighth-grade class at SMP N 1 Pinggir. The population in this study were eighth grade student who were divided into several classes total 241 students. The papers were then folded and placed in a container. Through a random draw, class VIII -6 was selected as the control class to the turn of 36 participants, and class VIII -7 was selected as the experimental class to the turn of 36 participants. This process ensured that the selection was entirely random and unbiased, thereby enhancing the validity of the sample selection process. The instrument used was a vocabulary test administered before and after the treatment. The teaching intervention involved the use of Wordwall activities for vocabulary learning across four types of tasks:

1. **Matching Games** – pairing words with definitions or pictures.
2. **Anagrams** – rearranging scrambled letters into correct words.
3. **Sentence Construction** – forming meaningful sentences using target vocabulary.
4. **Unjumble** – rearranging scrambled words into correct sentence order.

Data were analyzed using the paired sample t-test to examine the difference between pre-test and post-test scores. This research is using the experimental method.

Experiment research is defined as the most comprehensive quantitative research approach. Quantitative is a research method based on positive philosophy, used to investigate specific populations or samples, data collection uses research instruments, quantitative or statistical data analysis, to test the established hypothesis (Sugiono, 2011). This method is called the quantitative method because the research data is in the form of numbers and the analysis used statistics. This research is using Quasi Experiment research. Quasi Experiment is a design that has a control group, but cannot function fully to control external variables that affect the implementation of the experiment (Alberto, 2016).

Finding and Discussion

Paired sample t-test is used to determine whether there is a difference in the means of two paired samples. The requirement is that the data is normally distributed. Paired sample t-test was used to answer the problem formulation the effect of using Wordwall on students' vocabulary mastery at the eighth grade of SMP N 1 Pinggir. To answer the problem formulation, the Paired Sample T-test was conducted on the Pre-test data of the Experimental class with the Post-test of the Experimental class. Then the Pre-test data of the Control class with the Post-test of the control class. The results can be seen in the following table:

Table 1: Paired Samples Test

SPSS 27

		Mean	N	Std. Deviation	Std. Error Mean	
	Pair 1	Pre Test Experiment	63.94	36	6.795	1.132
		Post Test Experiment	80.33	36	7.127	1.188
	Pair 2	Pre Test Control	56.64	36	6.352	1.059
		Post Test Control	71.61	36	6.596	1.099

Source :

Based on the table 1, known on pair 1 that mean of pre-test Experiment class was

63.94 and mean of post-test Experiment class was 80.33. while on pair 2, mean of pre-test Control class was 56.64 and mean of post-test Control class was 71.61. it can be concluded that there were significance differences in the average of the students' speaking ability at the time of pre-test and post-test.

Table 2: Paired Sample T-test Experiment Class and Control Class

		Mean	Std. Deviation	Std. Error Mean	Paired Differences		t	df	Sig. (2-tailed)			
					95% Confidence Interval of the Difference							
					Lower	Upper						
Pair 1	Pre Test Experiment - Post Test Experiment	-16.389	7.643	1.274	-18.975	-13.803	-12.866	35	.000			
Pair 2	Pre Test Control - Post Test Control	-14.972	5.735	.956	-16.913	-13.032	-15.665	35	.000			

Source : SPSS 27

Based on the table 2, in interpreting the paired sample t-test, the researcher compared the data by orienting number of significance. If probability > 0.05 , it means that null hypothesis (H_0) is accepted. If probability < 0.05 , it means alternative hypothesis (H_a) is accepted. Based on pair 1 outputs obtained sig. (2-tailed) values of $0.000 < 0.05$, it can be concluded that there were significance differences in the average of the effect of using wordwall on students' vocabulary at the time of pre-test and post-test. It can be concluded that there is an. It means alternative hypothesis (H_a) is accepted.

Table 3: Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Score Vocabulary	Based on Mean	.219	1	70	.641
	Based on Median	.126	1	70	.724
	Based on Median and with adjusted df	.126	1	68.004	.724
	Based on trimmed mean	.196	1	70	.660

Source : SPSS 27

Based on the table 3, it is known that the significance value (sig) based on mean 0.641 > 0.05. So it can be concluded that the post-test on experiment class and post-test control class were homogenous.

Table 4 : The Independent Sample T-Test Group Statistic

		N	Mean	Std. Deviation	Std. Error Mean
Score Vocabulary	Post-test Experiment	36	80.33	7.127	1.188
	Post-test Control	36	71.61	6.596	1.099

Source :
SPSS
27

From the table 4, post-test in Experiment Class was 80.33 and post-test in Control Class was 71.61 Standar Deviation and Standar Error of post-test in experiment class were 7.127 and 1.188 while Standar Deviation and Standar Error post-test in control class were 6.596 and 1.099.

Table 5: The Independent Sampe T-Test of Post-test Score in the Experiment Class and Control Class

		F	Sig. .	T	Df	Sig. · (2 - tai l ed)	M e a n D i f f e r e n c e	Std. Error Differe nce	95% Confidence Interval of the Difference	
									Lower	Upper
Score Vocabulary	Equal varian ces assum es	.21 9	.64 1	5.389	70	.00 0	8.7 22	1.618	5.494	11.950
Equal varianc es not assum es				5.389	69.5 83	.00 0	8.7 22	1.618	5.494	11.951

From the table 5, in interpreting the Independent sample t-test data, the researcher compared the data by orientating number of significance. If probability > 0.05 , it mean there is no significant difference. If probability < 0.05 , it means there is significant difference. Based on score of probability gathered from SPSS 22, it showed that sig. (2-tailed) was smaller than 0.05 ($0.000 < 0.05$). Thus, the researcher can conclude that there are significant difference on students' of the effect of using wordwall on students' vocabulary mastery between experiment class and control class after giving treatment for the experiment class and without giving treatment for the control class at the eighth grade of SMP N 1 Pinggir. Control class at the eighth grade of SMP N 1 Pinggir. It means alternative hypothesis (H_a) was accepted and hypothesis (H_o) was rejected.

- a. H_a : There is significant difference between the students vocabulary mastery at the eighth grade students of SMP N 1 Pinggir before and after being taught by using wordwall.
- b. H_o : There is no significant difference on students' vocabulary mastery before using wordwall for the experimental group and without using wordwall for the control group of the eighth grade students at SMP N 1 Pinggir.

Based on the explanation above, the researcher found that answer the question of formulation of problem. Before using Wordwall, the students' vocabulary mastery in the experimental class was relatively low. The total pretest score for the experimental class was 2302 with a mean score of 63.94. Similarly, the control class, which did not use Wordwall, also had a low vocabulary mastery with a total pretest score of 2039 and a mean score of 56.64. After using Wordwall, there was a noticeable improvement in the students' vocabulary mastery in the experimental class. The total posttest score increased to 2893, and the mean score rose significantly to 80.33. This shows that Wordwall had a positive impact on the students' ability to understand and use vocabulary. In contrast, the control class, which did not use Wordwall, also showed improvement but to a lesser extent, with a posttest total score of 2508 and a mean score of 71.61. There is a significant effect of using Wordwall on students' vocabulary mastery. Although there was no significant difference between the experimental and control groups before the treatment, the posttest results show a substantial improvement in the experimental group compared to the control group. Furthermore, the statistical findings confirm that there is a significant difference between the students' vocabulary mastery before and after being taught using Wordwall, indicating the effectiveness of this digital tool in enhancing vocabulary acquisition

Conclusion

Based on the data presentation and the data analysis, the effect of using wordwall on students' vocabulary mastery at the eighth grade of SMP N 1 Pinggir. It can be concluded : The result of the total pretest score for the experiment class is 2302 and total posttest score for the experiment class is 2893. Total pretest score for the control class is 2039 and total posttest score for the control class is 2508. The result of the mean, as seen from the descriptive statistic, showed that students' vocabulary mastery had pretest score of 63.94 and posttest score of 80.33 for the experiment class. Students' vocabulary mastery had pretest score of 56.64 and posttest score of 71.61 for the control class.

There is no significant difference on students' vocabulary mastery before using wordwall for the experimental group and without using wordwall for the control group of the eighth grade students at SMP N 1 Pinggir. It can be seen based on the score of significant (sig) gathered from SPSS 27, it shows that sig (.000) was smaller than 0.05. It can be read that $0.000 < 0.05$. There is significant difference on students' vocabulary mastery after using wordwall for the experimental group and without using wordwall for

the control group at the eighth grade students of SMP N 1 Pinggir. It can be seen based on the score of significant (sig) gathered from SPSS 27, it shows that sig (.000) was smaller than 0.05. It can be read that $0.000 < 0.05$.

There is significant difference between the students' vocabulary mastery at the eighth grade students of SMP N 1 Pinggir before and after being taught by using wordwall. It can be seen based on the score of significant (sig) gathered from SPSS 27, it shows that sig (.000) was smaller than 0.05. It can be read that $0.000 < 0.05$. Teacher can use Wordwall in teaching an learning process. To be able to using teaching method effectively, teachers should understand the concept as well as the strengths and weakness of the teaching method. It enables them to know the right procedure of this teaching and avoid the obstacles which appear in the process of teaching and learning. Teacher should establish a good atmosphere to stimulate students to have fun in the process of teaching and learning, so it will be easy for the students to follow the lesson.

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