

GAMIFICATION VOCABULARY LEARNING: THE USE OF WORDWALL.NET IN JUNIOR HIGH SCHOOL

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Received: June 11, 2025 Revised: August 11, 2025 Accepted: September 09, 2025

ABSTRACT

Many approaches can be employed in vocabulary teaching and learning. One of these approaches is gamification. The goals of the study are to see if gamification approach through wordwall.nets' utilization can increase students' vocabulary mastery and to pinpoint the word category that demonstrates the most progress. Using a pre-experimental design with a one-group pre-test and post-test model, this study assesses if word wall media can deepen students' vocabulary proficiency, and also investigates which category of content words exhibits the most gains after the platform is implemented. The population in this study are eighth-grade students from MTs Negeri 2 Palu, sampled VIII D class, and the sample was chosen using purposive sampling technique. The data was analyzed using the paired sample t-test. Data analysis reveals a clear distinction between the students' pre-test and post-test outcomes. The average of students' results on the pre-test rises from 36.04 to 52.2 on the post test. The paired sample t-test demonstrates a statistically significant increase in the pre-test and post-test scores (Sig (2-tailed) = 0.000). This supports the alternative research hypothesis (Ha). Indicating wordwall.net is a useful tool for enhancing the vocabulary skills of eighth-grade students at MTs Negeri 2 Palu. The findings also confirms adjective as the content word that has impressive progress after the platforms' application.

Keywords: Gamification, Vocabulary Learning, Wordwall.net, Junior High School

INTRODUCTION

The pedagogical and learning dimensions of gamification in vocabulary acquisition focus on augmenting student engagement, motivation, and interaction by the incorporation of game-like features into vocabulary learning exercises. Gamification enhances intrinsic motivation by meeting psychological needs such as competence, independence, and connection, promoting student involvement in language acquisition (Adzmi et al., 2024). Having a robust vocabulary is vital for achieving proficiency in English, as it significantly impacts learners' abilities to grasp spoken language, articulate thoughts, understand written material, and create clear written content (Machfudi & Afidah, 2022). As a language is acquired, vocabulary is an essential component that must be mastered (Amaliyah & Mastuti Rahayu, 2023). However, Junior high school students in Indonesia still struggle to acquire and understand English vocabulary.

In a preliminary interview with an English teacher at MTs Negeri 2 Palu, the researcher found that eighth-grade students often struggle to select appropriate vocabulary for both their written and spoken English. Besides that, they also find it hard to learn word meanings. The teacher explained that these problems are caused by students' lack of enthusiasm for learning English and few chances to use the language. Students' involvement in learning is essentially beneficial in helping them acquire the knowledge easier and successfully. Successful learning requires student involvement (Ginting, 2021). One such strategy to get students' active participation is by implementing gamification, a method that incorporates game-like features to build students' contribution.

Incorporating gamification boosts student involvement, enhances the enjoyment of learning, and aids in information retention with reduced cognitive effort by fostering engagement (Afifah & Priyana, 2024). Wordwall.net is a web-based site that enables educators to design digital educational exercises as games for their pupils. These games provide students a chance to learn, practice, and strengthen their understanding of the language being taught in a fun and stimulating setting (Jannah et al., 2020). Wordwall.net also is said to be useful in helping students improve their vocabulary mastery. Enhancing vocabulary learning in EFL classrooms can be supported through interactive platforms like Wordwall.net, which utilize ICT to make language practice more engaging (Rovani et al., 2025; Wandari et al., 2024). As noted by Brinegar (2021) in Shabrina & Taufiq (2023), vocabulary is a critical component of language acquisition. Consequently, a limited number of online tools, including Wordwall.net, Quizizz, and Kahoot, have been developed to assist learners in enhancing their vocabulary skills.

This study distinguishes itself from the previous investigations in terms of its participants, design, and linguistic emphasis. Conducted at MTs Negeri 2 Palu with a single eighth-grade class, it utilizes a pre-experimental one-group pre-test and post-test format to evaluate students' progress. Unlike earlier studies that looked at vocabulary development in a general sense, this research concentrates on students' understanding of content words, providing a more specific focus that has not been thoroughly examined. Its novelty lies in the attention given to

particular types of vocabulary as well as the use of Wordwall.net through classroom projection rather than individual mobile devices, a method that aligns with schools that restrict smartphone use. This makes the study not only unique but also relevant to real classroom practices. Additionally, the research is significant because content words are crucial for supporting students' reading and writing abilities, especially in narrative text learning. This research aims to explore whether or not the use wordwall.net can boost students' vocabulary and to establish which category of words shows the most significant progress after the media's introduction.

MATERIALS AND METHOD

A. Materials

1. Definition of Vocabulary

Vocabulary consists of a collection of words. These words play a crucial role in both communication and acquiring a language. Vocabulary is highly significant as it directs students on their journey of learning English (Misrawati et al., 2020). A lack of vocabulary knowledge will prevent students from effectively expressing themselves, which will obstruct their ability to learn and communicate in the language (Rashid et al., 2022).

2. Word Category

Nouns, verbs, adjectives, and adverbs are categorized as content words because they provide significant meaning to phrases and sentences. This group of words is different from function words, which have more to do with grammar or structure. As stated by Huddleston & Pullum (2005), the primary grammatical roles of these content words can be outlined in the following ways:

A. Noun

A noun refers to a term that generally identifies individuals, items, locations, or concepts that are not tangible. It can act as the main element of a noun phrase and often plays the role of the subject or object within a sentence. Although numerous nouns possess plural variations, not all of them do. Pronouns are classified as a type of noun as they perform comparable roles in the construction of sentences.

B. Verb

A verb mainly conveys actions, processes, occurrences, or states. It acts as the core of a verb phrase; significantly influencing which other components can be included in a clause. The tense forms of certain verbs are the starting point for categorization, and they may also differ in their appearance depending on whether they are primary or secondary (lexical) verb types.

C. Adjective

An adjective is a term that describes the attributes or features of nouns. It can be positioned before the noun it describes or following a linking verb. Several adjectives provide the ability to indicate different levels by using gradation, and they are frequently accompanied by degree modifiers like "very" or "extremely."

D. Adverb

An adverb changes the meaning of verbs, adjectives, or additional adverbs by giving information about how, when, how often, how much, or where something occurs. A good number of adverbs are created by attaching -ly to adjectives, though some do not follow this pattern. Their main function in grammar is to improve or clarify the meaning of other terms or expressions within a sentence.

B. Method

A quantitative approach was used in this research. A quantitative approach was selected because the research examines students' vocabulary gains using numerical test results and statistical analysis. In quantitative research, researchers rely on measurable data to investigate how different variables relate to one another (Creswell, 2014). This method is the most appropriate for determining effectiveness, whereas a qualitative approach would not match the study's measurement-oriented goals. This method often begins with a theory-based hypothesis and proceeds through formal processes like statistical testing, experimentation, or the distribution of structured questionnaires (Neuman, 2014). To conduct the study, a pre-experimental design involving both pre- and post-test within a single group was applied. Class VIII-D, which had 25 students, was chosen as the experimental group through purposive sampling.

RESULTS

The findings were confirmed through statistical examination. In order to assess how effective the intervention was, this study contrasted the students' scores from the pre-test and post-test by using descriptive statistics, which included frequency distribution, average scores, and standard deviation, as well as inferential statistics, particularly the normality test and the paired sample t-test. The researcher employed SPSS version 24 to analyze the collected data.

Descriptive Statistics

The researcher quantified the average scores, which are presented in the descriptive statistics below. The dataset was gathered after reviewing the students' scores from both the pre-test and post-test.

Table 1. Descriptive Statistics

	N	Mean	Std. Deviation	
	Statistic	Statistic	Std. Error	Statistic
Pretest	25	36.0400	3.83383	19.16916
Posttest	25	52.2000	3.15911	15.79557
Valid N (listwise)	25			

A comparison of the pretest and posttest results reveals a difference in their average scores, as indicated by the table above. The pre-test average score of 36.0400 suggests that students' vocabulary abilities were generally below the anticipated level prior to the intervention. The average score on the post-test, however, increased to 52.2000, indicating an improvement in students' vocabulary abilities following the treatment. The standard error for the pre-test stands at 3.83383, whereas the post-test has a standard error of 3.15911, showing higher accuracy in estimating the post-test average. Additionally, the standard deviation, which measures how scores vary, dropped from 19.16916 in the initial test to 15.79557 in the post-assessment. This decrease in the standard deviation indicates improved uniformity in students' performance, which further supports the beneficial effect of the treatment, as demonstrated by the higher average score and lower variability.

Normality Test

Following the computation of the descriptive statistics for the study, the researcher proceeds to confirm the normality of the data through the utilization of Shapiro-Wilk test. If the significance value is greater than 0.05, the data is considered regularly distributed. Alternatively, the data is considered non-normally distributed if the significance value is less than 0.05. Below are the findings from the normalcy test.

Table 2. Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	.118	25	.200*	.946	25	.205
Posttest	.200	25	.011	.954	25	.313
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Based on the earlier table, the data was distributed normally because the significance levels for student performance in the pre-test was 0.205 and in the post-test was 0.313, both of which exceed 0.05.

Paired Sample Tests

A paired sample test was used to determine how well wordwall.net enhanced students' vocabulary abilities because the data had a normal distribution. This pair sample tests include the statistics of paired samples, paired samples correlation, and paired sample t-test. Paired sample t-test is a type of parametric analysis that evaluates two connected (paired) samples, like pre-test results compared to post-test results.

Table 3. Statistics of Paired Samples

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	36.0400	25	19.16916	3.83383
	Posttest	52.2000	25	15.79557	3.15911

As shown in table above, the paired sample t-test was applied. According to the data, there were twenty-five pupils present. Furthermore, a review of the average scores revealed that there had been development, with the initially administered assessment's mean score being 36.0400 and the post-assessment's mean score being 52.2000. Furthermore, that initial assessment's standard deviation was 19.16916. By contrast, the post-assessment showed a 15.79557 standard deviation. Additionally, the pre-assessment mean standard error was 3.83383, while the post-assessment mean standard error was 3.15911. This finding suggests that after playing the games on wordwall.net, students vocabulary skills increased. This result points to a positive relationship between students' vocabulary growth and site usage.

Table 4. Paired Samples Correlation

		N	Correlation	Sig.
Pair 1	Pretest & Posttest	25	.758	.000

As shown in Table 4, the dataset features a correlation between paired samples. The data reveal that there are 25 students involved. The correlation coefficient is measured at 0.758, accompanied by a p-value of 0.000. The outcomes of this study reveal a clear connection between the students' vocabulary prior and following the treatment.

Table 5. Paired Sample T-Test

				95% Confidence Interval of the Difference		t	Sig. (2-tailed)
Mean	Std. Deviation	Mean Error		Lower	Upper		
Pretest	-16.16000	12.57537	2.51507	-21.35086	-10.96914	-	24 .000
Posttest						6.425	

According to table 5, the paired sample t-test revealed a p-value of 0.000, which is less than 0.05. As a result, based on the paired sample t-test's decision, it

come to the conclusion that the null hypothesis (Ho) was rejected and the alternative hypothesis (Ha) was accepted. Furthermore, it is possible to deduce that the students' academic outcomes varied prior to and following the intervention.

Analysis of Content Words

To examine the collected data and determine which content word showed the greatest increase following the use of wordwall.net, this study utilized the results from both the pre and post tests. The outcomes of this research goal are displayed in table 6 below.

Table 6. Content Words Analysis

Content Words	Mean		Increased	Percentage
	Pre-test	Post-test	Number	Increase
Noun	11	13.44	2.44	22%
Verb	8.88	11.52	2.64	30%
Adjective	7.4	14.96	7.56	102%
Adverb	8.76	12.36	3.6	41%

According to the table, examining the scores of each content word from students' pre-test and post-test, reveals that adjectives showed the most significant growth, with the mean score rising from 7.4 to 14.96, representing an increase of 7.56 points with approximately 102% increased percentage. In contrast, noun shows the least improvement with the mean score increasing only by 2.44 points (from 11 to 13.44), equivalent to 22%. Verbs and adverbs experienced moderate growth, with increases of 30% and 41% respectively.

Additionally, Picture 1 below illustrates the improvement in students' content word scores more clearly, based on the percentage increases presented.

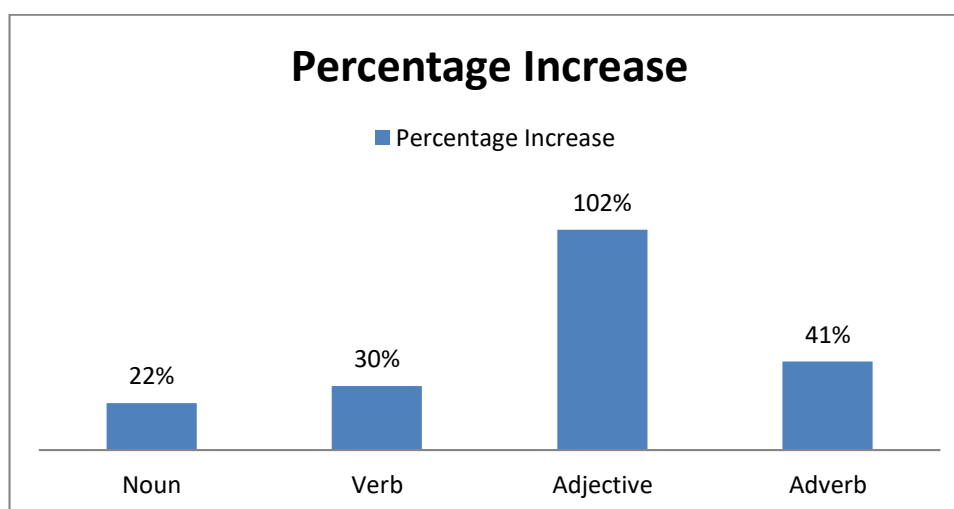


Figure 1. Content Words Percentage Increase

As seen in picture 1, adjective experienced the most significant percentage increase among the content words, followed by adverb, verb, and noun.

DISCUSSION

Overall, the results of this study indicate that Wordwall.net contributed to a noticeable improvement in students' vocabulary mastery. Their post-test scores increased compared to the pre-test, suggesting that the use of the platform positively influenced their learning progress. The data further show that of the four content-word categories, adjectives experienced the highest gain following the use of Wordwall.net. These findings imply that the platform is particularly effective in enhancing students' vocabulary development, especially in helping them grasp and retain descriptive terms.

Furthermore, these findings reinforce the value of Wordwall.net in vocabulary instruction. The results are consistent with previous research, such as Bandjarjani & Efrata (2023) and Igir et al. (2024) who reported that Wordwall helps students overcome difficulties in acquiring English vocabulary. Similar conclusions were drawn by Amelia et al. (2022), and teachers in Paksi et al. (2023) also expressed satisfaction with the platform's contribution to students' vocabulary growth.

In addition, this study aligns with the report by Pradini & Adnyayanti (2022), who also found that adjectives showed the highest gain after using Wordwall.net. Their data revealed that adjectives improved more substantially

than nouns or verbs, suggesting that the tool's interactive and engaging features are particularly effective for enhancing vocabulary that students typically find more challenging. These results align with earlier research.

Throughout the study, the researcher encountered two primary obstacles: a lack of sufficient time to utilize the media in classroom tasks and limited access to the complete features of the media because of payment constraints. These constraints affected the optimal implementation of the media in teaching vocabulary. Therefore, the researcher suggested that future researchers or English teachers prepare a more flexible teaching schedule to allow sufficient time for using such digital tools effectively. Additionally, since wordwall platform requires payment to access all features, it is recommended that teachers subscribe to the paid version in order to use all available features.

CONCLUSION

Wordwall.net proved to be an effective tool in enhancing vocabulary skills among eighth-grade students at MTs Negeri 2 Palu. After its implementation, students' post-test scores (52.2) showed a noticeable increase compared to their pre-test results (36.04), and this improvement was statistically significant, as validated by the paired sample t-test. Of all the vocabulary categories assessed, adjectives saw the greatest gains, suggesting that descriptive words may be more easily acquired through interactive learning media. These findings highlight the potential of digital tools to foster greater student engagement and vocabulary mastery.

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