

**THE EFFECTIVENESS OF WORDWALL MEDIA IN VOCABULARY  
MASTERY AT THE TENTH GRADE NURSING OF SMK  
MUHAMMADIYAH 3 METRO**

Yeni Lismayanti<sup>1</sup>, Syaifudin Latif. M.Pd.<sup>2</sup>, Fenny Thresia<sup>3</sup>

Universitas Muhammadiyah Metro, Indonesia.

[yenilismayanti2@gmail.com](mailto:yenilismayanti2@gmail.com)

[latifdar2011@gmail.com](mailto:latifdar2011@gmail.com)

[fenny.thresia@gmail.com](mailto:fenny.thresia@gmail.com)

**Abstract**

In the digital era, technology has become a major tool in learning media, with access to the internet, educational apps, and online resources, the learning process has become more interactive, flexible, and personalized. The research aimed to determine whether the use of wordwall media as a learning tool can significantly improve students' vocabulary acquisition compared to traditional learning methods. The method of this research was quantitative research. This research was used true experimental design. The sample of this research is students in class X Nursing SMK Muhammadiyah 3 Metro. The results demonstrated that the experimental class achieved a greater average increase than the control class. In the experimental class, the average pre-test score was 68.19, and the average post-test score was 72.33, resulting in an average difference of 9.14. In contrast, the control class had an average pre-test score of 64.48 and an average post-test score of 67.24, with an average difference of 2.76. In conclusion, this research provides strong evidence that the wordwall medium is an effective tool for improving vocabulary mastery among grade X nursing students at SMK Muhammadiyah 3 Metro. The educators are encouraged to consider integrating this tool into their learning practices to create more interactive, engaging, and effective learning experiences for their students. Future researchers should explore the long-term effects of using interactive media like wordwall on vocabulary acquisition and other language skills.

**Keywords:** *Wordwall Media, Vocabulary Mastery*

**INTRODUCTION**

In the digital era, technology has become a major tool in learning, making the process more interactive, flexible, and personalized through features like audio

pronunciation, word visualization, educational games, and sentence context, especially for vocabulary teaching.

Vocabulary is a fundamental component of learning English. Students who master vocabulary can better understand reading texts, write, and speak a language. Those who lack sufficient vocabulary struggle with language use, both orally and in writing. Mastery of vocabulary is essential for developing comprehensive skills in listening, speaking, reading, and writing. Students with limited vocabulary may find it difficult to communicate their thoughts effectively. The more vocabulary students know, the higher their English proficiency. Therefore, teaching vocabulary is a critical task for teachers, requiring effective media to help students. Several factors influence students' low vocabulary mastery, namely internal and external factors. Internal factors are, the students lack of motivation, students may not be motivated or do not see the importance of vocabulary, they make less effort to learn new words and the students lack of practice, students do not practice enough in using new vocabulary, both orally and in writing in everyday life. Meanwhile external factors is Ineffective learning methods, the teaching methods that teachers provide are not interesting or appropriate to the needs of students, that students feel bored and lazy to participate in learning.

Apart from that, researchers obtained vocabulary mastery scores from the results of a pra-survey of class X SMK Muhammadiyah 3 Metro of Nursing.

Vocabulary scores can be seen in the table below :

**Table Pre-survey Data Vocabulary Score at First Grade Culinary Art of SMK Muhammadiyah 3 Metro**

N0.	Categories	Score	Frequencies	Percentage
1.	Excellent	>90-100	0	0%
2.	Good	>80-90	10	9,6%
3.	Fair	>70-80	25	23,8%
4.	Poor	>60-70	45	42,8%
5.	Failed	<60	25	23,8%
Total			105	100%

*Source: Based on the Pra-Survey in SMK Muhammadiyah 3 Metro*

From the data above it can be explained that 0% of students are categorized as excellent, 9.6% of students are categorized as good, 23.8% of students are categorized as fair, 42.8% of students are categorized as poor, and 23.8% of students are categorized as failed. From the data above can be concluded that the students' vocabulary shows a percentage ranging from failed to poor.

To address these issues, the researcher seeks media that can build students' motivation to learn and make classroom learning more interesting, one of which is using Wordwall media. This website-based application can be used to create learning tools such as quizzes, matching, pairing, anagrams, word randomization, word search, grouping, and more. Through Wordwall media, learning not only focuses on vocabulary understanding but also trains students'

ability to define words. By applying the Wordwall website, students can remember vocabulary without feeling overly serious in studying. This website is very helpful for the researcher in enriching vocabulary mastery. The researcher hopes this study will have a positive impact on students' vocabulary mastery. By using this media, students are expected to gain new experiences and find it easier to master new vocabulary.

## **THEORITICAL FRAMEWORK 1. Vocabulary**

According to Lube & Nuraeni (2020), vocabulary learning is essential for language acquisition, whether it's one's first, second, or foreign language, as it facilitates communication and enhances speaking, writing, reading, and listening skills. Turnip (2020) explains that vocabulary refers to the collection of words specific to a language or individual speakers, and insufficient vocabulary hinders comprehension and expression. Mastering vocabulary is crucial in English language acquisition, as lacking the right word can lead to frustration for both the speaker and listener.

Vocabulary plays a critical role in language skills, and without it, meaningful communication cannot occur, regardless of grammar proficiency (Seltia, 2023). Students' vocabulary directly impacts their ability to understand the teacher, participate in discussions, and engage in listening activities Imran (Seltia, 2023). According to Madhanty et al., (2022) vocabulary is integrated into listening, speaking, reading, and writing lessons. Its importance is evident, as insufficient vocabulary hinders effective communication and expression in both oral and written forms.

## **2. Media**

According to Turnip et al., (2020) media are communication tools that transmit information between the source and the receiver. When used in an educational setting, it is called learning media and serves to convey messages and stimulate students to learn. Learning media plays a crucial role in education by not only delivering information but also motivating and engaging students. Proper use of media can create an interactive and dynamic learning environment, making material easier to understand and retain. It also simplifies complex concepts for students, making effective media selection a key factor in successful teaching. Turnip et al., (2020) categorize media into several types:

- 1) Visual media, such as photographs, illustrations, and posters, which can only be seen.
- 2) Audio media, including audio recordings, MP3s, and radio broadcasts, which can only be heard.
- 3) Audiovisual media, such as films, videos, and television programs, which can be both seen and heard.
- 4) Computer-based media, like interactive video learning, web-based learning, and learning support applications (e.g., GeGebra, SPSS).
- 5) Realia media, which includes real objects from the environment, such as plants, rocks, and water bodies.

### 3. Wordwall media

According to Widyaningsih et al., (2023) Wordwall is a website-based application used to create learning media like quizzes, matchmaking, pairing, anagrams, word randomization, word search, and grouping. It is a fun and suitable tool for improving students' vocabulary mastery due to its engaging features, allowing students to actively participate in the learning process. Teachers can create games from templates or use games made by others. Originally designed as computer software, Wordwall became a website in 2016 and has since been used more frequently.

The Wordwall website is considered very engaging for students. According to Umar, n.d. (2023), it is a free online tool for designing study exercises and is beneficial for enriching vocabulary mastery. The media not only focuses on understanding vocabulary but also helps in training students to define words. By using Wordwall, students can remember vocabulary without feeling overly serious. The researcher uses various types of activities in the research, including match-up, find the match, unjumble, matching pairs, group sort, word search, labeled diagram, and crossword.

### METHOD

The method of this research was quantitative, using a true-experimental design. According to Zubair (2020), true-experimental research effectively tests cause-and-effect relationships between variables by using randomization, treatment and control groups, and pre- and post-treatment measurements to control confounding variables and provide valid conclusions about the intervention's effects.

In this research, two groups were compared, the experimental group and the control group. The experimental group was treated with Wordwall media to enhance vocabulary acquisition through interactive features, while the control group was taught without Wordwall to evaluate the difference in effectiveness. The study involved three main procedures: pre-test, treatment, and post-test. All tests were expert-validated before administration. The pre-test measured achievement before treatment, the experimental group received Wordwall media treatment while the control group did not, and the results of both groups were compared to assess the impact of Wordwall on vocabulary skills.

### REUSULT AND DISCUSSION

This selction prelseints the findings of the reselarch on the elffelctiveness of wordwall meldia in vocabullary mastery among telnth-gradel nulrsing studeInts at SMK Mulhammadiyah 3 Meltro. The findings arel organized into threlel main parts: data description, pre-analysis data, and hypothelsis telsting. The data description selction outlinels the results from the pre-telst and post-telst in both the control and elxperimeIntal classels. This is followeld by pre-analysis data proceldurels, including normality and homogeIntelty telsts, to elnsure the data's sulitability for hypothelsis telsting. Finally, the hypothelsis telsting selction

elvalulatel whelthel thel usel of wordwall meldia significantly improved the studeInts' vocabullary mastelry compareld to traditional telaching melthods.

**1) Pre-Test Results**

On Augulst 21, 2024, a prel-telst was condulcteld in both thel control and elxpelrimeIntal classels to asselss thel studeInts' basellnel vocabullary knowledgel. The average score for the experimental class was 68.19, with a standard deviation of 7.38071. The control class had an average score of 64.47 and a standard deviation of 11.37445

**Table Pre-Test Results in the Experimental Class and Control Class**

Descriptive Statistics						
	N	Rangel	Minimum	Maximum	Melan	Std. Delviation
Control Class	35	46.67	40.00	86.67	64.4769	11.37445
ElxpelrimeIntal Class	35	33.33	46.67	80.00	68.1911	7.38071
Valid N (listwise)	35					

*Soulrcel: Relsullts of Prel-telst by SPSS 27*

**2) Post-Test Results**

The post-test, conducted on Augulst 30, 2024, a post-telst was administelreld to both thel control and elxpelrimeIntal classels. The experimental class achieved a mean score of 77.33 with a standard deviation of 7.95413, while the control class had a mean score of 67.23, and a standard deviation 8.22390.

**Table Post-Test Results in the Experimental Class and Control Class**

**Table 1 Data Description of Post-test**

Descriptive Statistics						
	N	Rangel	Minimum	Maximum	Melan	Std. Delviation
Control Class	35	33.33	50.00	83.33	67.2386	8.22390
ElxpelrimeIntal Class	35	30.00	60.00	90.00	77.3337	7.95413
Valid N (listwise)	35					

*Soulrcel: Relsullts of Post-telst by SPSS 27*

### 3) Hypothesis Testing

Hypothesis testing was conducted to evaluate the effectiveness of wordwall media in vocabulary mastery. The first hypothesis was tested using the Paired Sample T Test with SPSS, and the second hypothesis was tested using the Independent Sample T Test with SPSS.

Before conducting hypothesis testing, researchers compared the average pre-test and post-test scores of the experimental class to determine the improvement after using wordwall media in vocabulary mastery.

**Table 2 The Mean Score of Pre-Test and Post Test in Experimental Class**

Groups	N	Mean Pre-Test	Mean Post-Test	Mean Different
Experimental	35	68.19	77.33	9.14

The mean between pre-test and post-test in experimental class was different. The mean score in pre-test is 68.19 and the mean score in post test is 77.33. The mean score of post-test is greater than pre-test score (77.33 > 68.33) with 9.14 difference. It can be concluded that teaching using wordwall media have an effect in vocabulary mastery.

#### A. First Hypothesis

. This hypothesis involved comparing the pre-test and post-test data from the experimental class. According to the normality test, the data distribution was normal. The Paired Sample T-Test was conducted using the significance value (Sig.), with the statistical hypothesis for the first hypothesis outlined as follows:

- Alternative Hypothesis (H1) There is an effective between the students' vocabulary mastery before and after treatment by using wordwall media if sig. value lower than 0.05 (<0.05).
- Null Hypothesis (H0) There is no effective between the students' vocabulary mastery before and after treatment by using wordwall media if sig. greater than 0.05 (>0.05).

#### The Result of Paired Sample T Test

Paired Samples Test							
Paired Differences							
	Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference	Lower	Upper	Sig. (2-tailed)
Pair Pre-Test - Post-Test	-9.14257	10.36388	3.55536	[-7.92126, 0.60097]	-7.92126	0.60097	.0001

Source: Paired Sample T Test by SPSS 27

Based on the table above, it can be analyzed that the significant value (2-tailed) is 0.000, which is lower than the error level of 5% (0.05). Since the significant value is smaller than 0.05 ( $\text{sig} < 0.05$ ), according to the first hypothesis, it can be concluded that H1 is accepted. This indicates that there is an effective difference in the students' vocabulary mastery before and after treatment by using wordwall media.

**B. Second Hypothesis**

This hypothesis involves comparing the post-test scores from the experimental class with those from the control class. According to the normality and homogeneity tests, the data was normally distributed and homogeneous. The Independent Sample T-Test was conducted using the significance value (Sig.), with the statistical hypothesis for the second hypothesis outlined as follows:

- a. Alternative Hypothesis (H1) there is significant differences of students vocabulary mastery after using wordwall media at the tenth grade nursing of SMK Muhammadiyah 3 Metro if sig. value lower than 0.05 ( $<0.05$ ).
- b. Null Hypothesis (H0) There is no significant differences of students vocabulary mastery after using wordwall media at the tenth grade nursing of SMK Muhammadiyah 3 Metro if sig. greater than 0.05 ( $>0.05$ ).

**The Result of 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
score	Equal variances assumed	.006	.939	-5.220	68	.000	-10.095	1.934	-13.954	-6.236
	Equal variances not assumed			-5.220	67.924	.000	-10.095	1.934	-13.954	-6.236

*Source: Independent Sample T Test by SPSS 27*

Based on the table above, the significant values (2-tailed) are 0.000 and 0.00, which are compared to the error level of 5% (0.05). Since the significant value of 0.000 is smaller than 0.05 ( $\text{sig} < 0.05$ ) and 0.00 is lower than 0.05, this indicates that there is a significant difference in the vocabulary mastery after using wordwall media at the tenth grade nursing of SMK Muhammadiyah 3 Metro. Consequently, the second hypothesis alternative hypothesis ( $H_1$ ) is accepted.

## CONCLUSION AND SUGGESTION

This research evaluated the effectiveness of the wordwall media in improving vocabulary mastery among grade X nursing students at SMK Muhammadiyah 3 Metro. The results demonstrated that the experimental class achieved a greater average increase than the control class. In the experimental class, the average pre-test score was 68.19, and the average post-test score was 72.33, resulting in an average difference of 9.14. In contrast, the control class had an average pre-test score of 64.48 and an average post-test score of 67.24, with an average difference of 2.76. This indicates that the average difference in the experimental class is significantly greater than in the control class ( $9.14 > 2.76$ ).

Based on the findings, several recommendations can be made. For teachers, should consider incorporating interactive tools like wordwall media to enhance vocabulary mastery, creating a dynamic learning environment that caters to different learning styles and keeps students motivated. Regular assessments should be conducted to monitor progress and adapt teaching strategies. For students, are encouraged to actively engage with wordwall media to improve vocabulary skills, as consistent practice and participation can significantly enhance language abilities, and using these resources outside the classroom reinforces learning. For future researchers, should explore the long-term effects of interactive media like wordwall on vocabulary and other language skills, investigate its impact across different age groups and educational settings, and include qualitative data to understand its impact on learning outcomes.

## REFERENCE

- Asrul, M., Nurhikmah, S., & Abdul, N. (2024). *Gamification in Teaching Vocabulary* (Issue 2007). Atlantis Press SARL. <https://doi.org/10.2991/9782-38476-210-1>
- Lube, C. I., & Nuraeni, S. (2020). Improving English Vocabulary Mastery Through Word Game. *PROJECT (Professional Journal of English Education)*, 3(1), 109. <https://doi.org/10.22460/project.v3i1.p109-113>
- Madhanty, M., Sutiyono, A., & Marcela, E. D. (2022). Improving Student's Vocabulary Mastery By Using Make a Match Technique at the Tenth Grade of SMK Negeri 7 BAndar Lampung. *Jurnal Ilmiah Mahasiswa (Pendidikan Bahasa Inggris) STKIP PGRI Bandar Lampung*, 1–8.
- Seltia, M. (2023). Duolingo Gamification in Improving Students' Vocabulary Mastery. *Trends and Studies*, 1(3), 18–24.
- Turnip, M. C., Rumapea, L., & Sari, A. S. P. (2020). Improving Students' Vocabulary Mastery By Using Pictures Media To the Seventh Grade Students of Smp Negeri 21 Medan. *Kairos English Language Teaching Journal*, 1(3), 103–116. <https://doi.org/10.54367/kairos.v1i3.716>
- Widyaningsih, Y., Nadiroti, N., Hamdani, N., Nurfaadilah, S., & Febriyanti, N. (2023). *WordWall Application as an Interactive Learning Media in Mastering English Vocabulary at Elementary School* (Vol. 1). Atlantis Press SARL. [https://doi.org/10.2991/978-2-38476-056-5\\_46](https://doi.org/10.2991/978-2-38476-056-5_46)
- Zubair, A. M. (2020). Experimental research. *Researching Translation and Interpreting*, January, 220–228. <https://doi.org/10.30574/wjarr.2022.16.3.1152>