



## The Effect of wordwall.net on Students' Vocabulary Mastery in Reading Narrative Text at SMK Muhammadiyah 2 Pekanbaru

\*Nadya Wahyuni Saftri,<sup>1, a</sup> Rumiri Aruan<sup>2, b</sup>, Atni Prawati<sup>3, b</sup>

<sup>1,2,3</sup>Universitas Riau, Pekanbaru, Indonesia

<sup>a</sup>[nadya.wahyuni2101@student.unri.ac.id](mailto:nadya.wahyuni2101@student.unri.ac.id), <sup>b</sup>[rumiri.aruan@lecturer.unri.ac.id](mailto:rumiri.aruan@lecturer.unri.ac.id),

<sup>c</sup>[atni.prawati@lecturer.unri.ac.id](mailto:atni.prawati@lecturer.unri.ac.id)

### ARTICLE INFORMATION

#### Article History:

Received : 27/03/2024

Revised : 30/04/2024

Accepted : 20/05/2024

Published : 31/05/2024

#### Keywords:

*Wordwall.net, Vocabulary, Narrative text*

#### DOI:

<https://doi.org/10.46963/asatiza.v5i2.1800>

#### \*Correspondence Author:

[nadya.wahyuni2101@student.unri.ac.id](mailto:nadya.wahyuni2101@student.unri.ac.id)

### Abstract

This study examined the effect of Wordwall.net has any effect on students' vocabulary mastery in reading the narrative texts of the tenth-grade students of SMK Muhammadiyah 2 Pekanbaru in 2023/2024. This research used a true experimental design with quantitative approach by randomly selecting the sample. Class 10 Pengembangan Perangkat Lunak dan Gim (PPLG) 1 selected as the experimental class (taught using Wordwall.net) and class 10 Pemasaran as the control class (taught using the conventional method). Data collected using pre-tests and post-tests, then analyzed using SPSS 24. The results revealed that the average pre-test and post-test score in the experimental class was increased by 8.93%, while in the control class, it only increased by 3.49%. The result of the independent sample T-test was 0.048, which is smaller than the alpha value (0.05). Based on the study's results, it can be concluded that using Wordwall.net influenced students' vocabulary mastery in reading narrative texts.

© authors (2024) under  
license [CC BY SA](https://creativecommons.org/licenses/by-sa/4.0/)

#### How to cite this article:

Saftri, N. W., Aruan, R., & Prawati, A. (2024). The effect of wordwall.net on students' vocabulary mastery in reading narrative text at SMK Muhammadiyah 2 Pekanbaru. *Asatiza: Jurnal Pendidikan*, 5(2), 197-205. <https://doi.org/10.46963/asatiza.v5i2.1800>

## INTRODUCTION

Science and technology development supports English's status as a global language. Thus, we, the younger generation, must be proficient in English to adjust and keep up with technological advancements. Therefore, the English lesson is the most crucial aspect that needs to be strengthened to face this situation. To

strengthen and master the English lessons, the students must master four crucial skills: listening, reading, speaking, and writing. Yulfischa (2023) states that one of the most important language skills is reading, which enables people to acquire much information and knowledge. Students will find it easier to read and comprehend the text if they have a large

vocabulary. Without knowing the meaning of each word, they cannot comprehend what they are reading, which will certainly affect their learning outcomes.

In The Merdeka Curriculum, learning objectives are created using a phase-based approach. These phases are divided into phases A, B, C, D, E, and F, in which phase E is for class X SMA or equivalent (Irawati et al., 2022). In phase E, there are several learning elements, such as listening-speaking elements, reading-viewing elements, and writing-presenting elements. In the reading and viewing elements, students are expected to be able to read and respond to various texts, such as narratives, descriptions, procedures, expositions, recounts, and reports. Grabe and Stoller (2002, as cited in Nurkhotimah, 2022) defined that reading is one of the most important skills; it requires reading and understanding words' meanings to comprehend and get information effectively. To be able to do that, of course, students' vocabulary mastery is needed. Hence, students must have good vocabulary mastery to understand the reading text.

Although students realize the importance of vocabulary in reading activities, they still learn it passively because of several factors. For instance, most students need help memorizing all the vocabulary taught to them by the teacher. Moreover, Ismail (2019) states that mastering vocabulary is challenging, primarily because of the complexity of English vocabulary. Furthermore, the traditional teaching method is one of the factors contributing to low student vocabulary mastery. There are still a lot of

teachers who do not integrate media or advanced technology into the classroom, which makes the students feel bored and tired in the learning process. Nation (2005, as cited in Dakhi & Fitria, 2019) mention six principles in the teaching vocabulary: (1) Avoid using complex explanation, (2) Connect the current lesson to prior knowledge, (3) Presenting information both orally and written form, (4) Pay attention to familiar terms, (5) Highlight the high-frequency words, and (6) Not include any unrelated terms.

Based on the writer's observations during the *Pengenalan Lapangan Persekolahan (PLP)* activities in the tenth grade at SMK Muhammadiyah 2 Pekanbaru, the writer found that students still often experience difficulties in reading and understanding a text that is read. One factor that influenced this was the lack of vocabulary mastery of the students; they did not know the meaning of every word they read, which made them unable to understand the meaning of the text. The students also face difficulty memorizing and using new words correctly, which makes them passive. It was because they find it challenging to communicate and express their feelings in spoken and written English. Moreover, all of these difficulties faced by the students then affect their learning outcomes in the daily and midterm tests.

Therefore, to solve all these problems, the teacher should create an engaging learning environment where students will feel energized when reading activities and learning vocabulary. Using technology as a learning medium is an excellent option to help students increase

their vocabulary during reading activities. One of the websites that teachers can use is Wordwall.net, a web-based learning media offering many games to support the learning process. Sentani et al., (2022) state that the Wordwall application could be a web application that can be used to learn media based on fun quizzes or games to design and review learning outcomes. On this website, teachers can use the games created by other teachers and their own using templates (Çil, 2021). Each of these templates can be utilized by the teacher in accordance with the students' learning activity objectives, it also can be played either individually by students or in a teacher-led in class (Francisca, 2022).

Furthermore, Widodo et al., (2022) state that the use of games in the learning process is one of the most effective ways to improve students' abilities or skills. Additionally, according to Sari & Yarza (2021), Wordwall.net is an application that can be sent directly via WhatsApp, Google Classroom, and other platforms. Of course, it makes learning much easier and more practical and makes it easier for students to increase their vocabulary.

Related to the previous theories, some research showed that Wordwall.net, as the learning media used in English classrooms and others, impacts students' motivation and vocabulary mastery. The results of research by Çil (2021) indicated that using Wordwall.net could help increase students' vocabulary knowledge. Another study was conducted by Purwitasari (2022), the findings revealed a difference between the students who are taught vocabulary using the Wordwall application and those who are not. It also

implied that the Wordwall application could improve the student's vocabulary mastery. In addition, the implementation of Wordwall.net as a learning media is effective to improve students' learning outcomes, it is shown by the increase in the average score of the students (Sentani et al., 2022). Furthermore, the results of survey and interview conducted by Mutmainah (2022), showed that using the educational website Wordwall as a gamification tool improved students' academic, behavioral, cognitive, and affective involvement in English learning.

Based on previous research, there is no research that uses Wordwall.net to improve vocabulary in reading narrative texts. Therefore, the writers are motivated to examine whether Wordwall.net has any effect on students' vocabulary mastery in reading narrative text of the tenth-grade students at SMK Muhammadiyah 2 Pekanbaru in the academic year 2023/2024. The results of this study are expected can attract students to use Wordwall.net to improve their vocabulary mastery and help them to understand the text they are read. Furthermore, by using Wordwall.net as a learning media based on games can make students be more engaged in learning English. Moreover, the study's results are expected to be a reference and give information to teachers about teaching vocabulary in reading narrative text using Wordwall.net.

## METHOD

This research design is a true experimental design with quantitative approach. According to (Sugiyono, 2022), the main characteristic of a true experimental design is that both the

sample used for the experiment and the control group were randomly selected from a specific population. The use of Wordwall.net on students' vocabulary mastery in reading narrative text investigated using this design to determine its effects in experimental and control classes.

The instrument used in this research was a test divided into two parts based on the time when giving a test: pre-test and post-test. There were 40 multiple-choice questions that covered students' understanding in comprehending the reading text about legend, students' vocabulary mastery in synonym, antonym, and the word classes. The research instrument was tested before being used in the research. The tryout was conducted by randomly selecting two classes to examine the validity of the instruments. Then, after the instruments were valid, the pre-test and post-test were given to the sample classes.

In this research, the sample was selected using a lottery. The lottery was drawn by choosing two of some paper named for each class. Finally, the class selected as the experimental class was 10 PPLG 1 of SMK Muhammadiyah 2 Pekanbaru and the control class was 10 Pemasaran of SMK Muhammadiyah 2 Pekanbaru. The data collected by giving the pre-test and post-test to students. The pre-test was carried out in the experimental class and control class before given the treatment for both classes. The Wordwall.net implemented as a learning medium in an experimental class. On the other hand, in the control class, a conventional method was implemented. After two meetings in each class, the

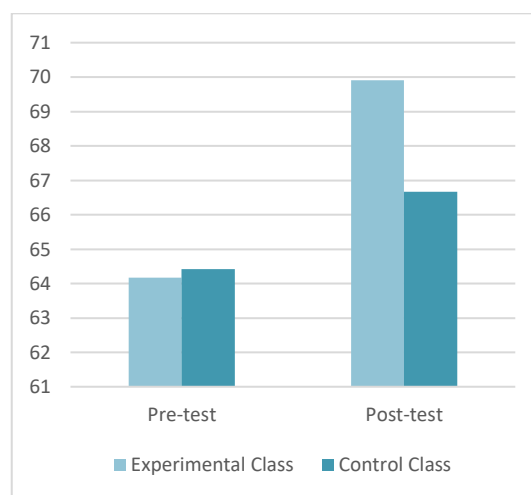
writers distributed the post-test in both classes to measure their vocabulary mastery after learning using Wordwall.net and conventional method. After that, the students' pre-test and post-test results were examined and described using a statistical analysis of t-test on SPSS 24 of normality, homogeneity, and t-test.

## RESULT AND DISCUSSION

Since this research is quantitative, the data analysis was done statistically. For data analysis, SPSS 22 was used to calculate the normality and homogeneity of the data. Then, an independent sample t-test was used to compare the results of the group test and to test the hypotheses.

After giving the treatment for 2 meetings in two classes, students' pre-test and post-test results were obtained. The figure below shows the average score of the pre-test and post-test of the experimental and control classes.

**Figure 1.** The average Score of Pre-test and Post-test in Experimental and Control Class



Based on Figure 1, there was an increase in the average score of the experimental class from 64.1 to 69.90. Meanwhile, the control class also

increased, but not as much as the experimental class, from 64.4 to 66.7. Therefore, using Wordwall.net as a learning media to improve students' vocabulary in reading narrative text is quite effective. Although the difference scores between the two classes may be not significant, it still proved that the use of Wordwall.net can indeed effect students' vocabulary mastery.

To know is there any effect of the using of Wordwall.net on students' vocabulary mastery, the writer did the independent sample t-test. Firstly, the writer conducted a normality test on the students' pre-test and post-test results. The normality test is used to determine whether the data is normally distributed or not.

**Table 1.** The Normality Test of Pre-test and Post-test in Experimental and Control Class

Class	Kolmogorov-Smirnov Statistic		Shapiro-Wilk Statistic	
	df	Sig.	df	Sig.
Pre-test Experimental Class	24	.016	24	.051
Post-test Experimental Class	24	.056	24	.077
Pre-test Control Class	30	.054	30	.0128
Post-test Control Class	30	.180	30	.446

Based on Table 1, the value of Shapiro-Wilk of pre-test results in experimental class was 0.051 and in control class was 0.077. Furthermore, based on Table 1, the value of Shapiro-Wilk of post-test results in experimental class was 0.128 and in control class was 0.446. From that, the results of pre-test and post-test in both classes distributed normal, because of the significance value of the two classes higher than 0.05.

After conducted the normality test, the writer conducted the homogeneity test to know whether the pre-test and post-test results of students in experimental and control classes took from the same population with the same variance. The analysis result can be presented in the following table:

**Table 2.** The Homogeneity Test of Pre-test and Post-test in Experimental and Control Class

			Levene Statistic	Sig
Result of Pre-test	Based on Mean		2.101	.153
Result of Post-test	Based on Mean		3.559	.065

Based on Table 2, the result of homogeneity test for pre-test in experimental and control class based on mean in significance was 0.153. Then, the result of homogeneity test for post-test in experimental and control class based on mean in significance was 0.065. It proved that the pre-test and post-test results in the experimental and control class were homogeneous because the significance value is more than 0.05.

After determining the normality and homogeneity of the data distribution, the next step is to conduct an independent sample t-test on the result of post-test of the students in both experimental and control classes to know whether the hypothesis is accepted or not. The purpose of the t-test also to determine if there was an effect on the students' vocabulary mastery between the two classes.

**Table 3.** The Independent-Sample T Test of Experimental and Control Class

		t-test for Equality of Means	
		Sig(2-tailed)	Mean Difference
Result of Post-test	Equal variances assumed	.048	3.22917
	Equal variances not assumed	.041	3.22917

Based on Table 3, it showed the significance 2-tailed was 0.048. It means that there is an effect between the two classes, because the significance 2-tailed was lower than 0.05. Therefore, the null hypothesis ( $H_0$ ) was rejected, and the alternative hypothesis ( $H_a$ ) was accepted. It means that there is an effect of using Wordwall.net on students' vocabulary mastery in reading narrative text of tenth-grade students of SMK Muhammadiyah 2 Pekanbaru.

The pre-test and post-test results in the experimental class and control class revealed a difference in the outcomes of using Wordwall.net as a learning media. In the experimental class, there was a difference of 5.73 between the average pre-test and post-test results, while in the control class, the difference was 2.25. Although this increase is not statistically significant, it can still be evidence that there is an improvement in students' vocabulary after learning using Wordwall.net. When the results of this research are compared to similar research studies by Cil (2021), it found that the average scores between two classes did not differ significantly because of the short treatment period. Cil (2021) states that three factors cause this: the short treatment duration, high motivation among students

to learn English, and most students are already familiar with some of the vocabulary chosen to be taught. Similar to the research conducted by the writer, the limited number of meetings resulted in insignificant changes in the test results.

However, the result of the independent sample t-test (0.048), which is smaller than the alpha value (0.05), indicated an effect of using Wordwall.net on students' vocabulary mastery. This implied an improvement in the students' vocabulary mastery in the experimental class, especially in their knowledge of nouns, verbs, adjectives, synonyms, and antonyms of the word in the narrative text about legends. In addition, learning media can be a game to increase students' attention and motivation and improve the quality of their learning outcomes (Deni and Cepi, 2013, as cited in Purwitasari, 2022). Additionally, giving rewards to students who achieved the highest score on Wordwall.net also contributed to improving the vocabulary of students in the experimental class. This is because it motivated them to answer every question correctly. They also will also remember their incorrect answer and play the game again to succeed. The chance of students memorizing the words increases with the number of errors they make (Alpatikah, 2022).

In addition, the questions in the students' pre-test and post-test also contained the students' ability in reading comprehension of narrative text. The increase in scores in the experimental class indicated an improvement in understanding of narrative text, such as the function, generic structures, and language

features of narrative text. Shanahan (2005) states that vocabulary and comprehension are strongly related, it will be simpler to understand the material if the reader has an enormous vocabulary mastery. This implied that the use of Wordwall.net as learning media in the experimental class can improve their ability to comprehend narrative text, which aligns with the improvement in their vocabulary mastery.

Moreover, during the research, the writer used a basic account when using Wordwall.net, which meant that the writer could only use some of the templates provided by Wordwall.net. However, this limitation did not impact the effectiveness of Wordwall.net as a learning media, because basic users still have access to 18 out of the 33 interactive templates offered by Wordwall.net. It also mentioned by Alpatikah (2022), she states that Wordwall.net provides engaging games, encourages teachers to use them, and provides game templates that help in vocabulary development.

As a result, Wordwall.net had a positive effect on the vocabulary mastery in reading narrative texts about legends of tenth-grade students of SMK Muhammadiyah 2 Pekanbaru in the academic year 2023/2024.

## CONCLUSION

Based on the results of research conducted in class 10 PPLG 1 and 10 Pemasaran of SMK Muhammadiyah 2 Pekanbaru, it is known that Wordwall.net can improve students' vocabulary mastery. This was evidenced by the increase in students' pre-test and post-test averages. In the experimental class, the average student score increased from 64.17 to 69.90 after

learning with Wordwall.net as the learning media. In the control class, which used conventional methods, the average student score only increased by 2.25, going from 64.42 to 66.67. The distinction between the two classes was insignificant due to the short time of the meetings, which consisted of only two meetings. In addition, the effect of using Wordwall.net in improving students' vocabulary mastery is also evidenced by the results of hypothesis testing using an independent sample t-test, with a significance value of 0.048. The result of this test is lower than the alpha value of 0.050, which means that the null hypothesis was rejected, and the alternative hypothesis was accepted. This indicated that the use of Wordwall.net can improve the vocabulary mastery of the tenth-grade students of SMK Muhammadiyah 2 Pekanbaru in the academic year 2023/2024 in reading narrative texts about legend.

Since this research was restricted by a limited meeting time, the writer suggests future researchers consider the duration of their research to get better results. The writer also advises the teacher to use Wordwall.net in their lesson plans to make vocabulary learning more engaging and interactive.

## REFERENSI

Alpatikah, E. (2022). The Effect of using wordwall. net on student's vocabulary mastery (*bachelor's thesis*, Jakarta: FITK UIN Syarif Hidayatullah Jakarta). [https://repository.uinjkt.ac.id/dspace/bitstream/123456789/62299/1/11170140000048\\_ERLIN%20ALPATIKA\\_H.pdf](https://repository.uinjkt.ac.id/dspace/bitstream/123456789/62299/1/11170140000048_ERLIN%20ALPATIKA_H.pdf)



- Çil, E. (2021). The effect of using Wordwall. net in increasing vocabulary knowledge of 5th Grade EFL students. *Language Education and Technology*, 1(1), 21-28. <http://langedutech.com/>
- Dakhi, S., & Fitria, T. N. (2019). The principles and the teaching of English vocabulary. A review. *Journal of English teaching*, 5(1). <https://doi.org/10.33541/jet.v5i1.956>
- Gaona Vicente, L. F. (2022). Word wall and vocabulary learning (*bachelor's thesis, Universidad Técnica de Ambato-Facultad de Ciencias Humanas y de la Educación-Pedagogía de los Idiomas Nacionales y Extranjeros*). <https://repositorio.uta.edu.ec/jspui/handle/123456789/35980>
- Irawati, D., Najili, H., Supiana, S., & Zaqiah, Q. Y. (2022). Merdeka belajar curriculum innovation and its application in education units. *Edumaspul: Jurnal Pendidikan*, 6(2), 2506-2514. <https://doi.org/10.33487/edumaspul.v6i2.4603>
- Ismail, I. (2019). The impact of interactive reading using local folktales stories in supporting students' vocabulary achievement in Indonesian EFL Learners. *Majesty Journal*, 1(2), 25-37. <https://doi.org/10.33487/majesty.v1i2.119>
- Mutmainah, M. (2022). Students' perceptions and engagement in learning english with the use of gamification through wordwall educational website (*Doctoral dissertation, Universitas Pendidikan Indonesia*). <https://repository.upi.edu/81469/>
- Nurkhotimah, S. (2022). Fostering students' reading comprehension of narrative text throug 3-2-1 strategy (A classroom action research at the students of tenth grade of manahijussadat islamic boarding school in academic year 2021/2022). (*Bachelor's thesis, Jakarta: FITK UIN Syarif Hidayatullah Jakarta*). <https://repository.uinjkt.ac.id/dspace/handle/123456789/62786>
- Purwitasari. (2022). The effectiveness of wordwall application in improving students' vocabulary mastery (*Doctoral dissertation, IAIN Ponorogo*). <http://etheses.iainponorogo.ac.id/id/eprint/19900>
- Sari, P. M., & Yarza, H. N. (2021). Pelatihan penggunaan aplikasi quizizz dan wordwall pada pembelajaran IPA bagi guru-guru SDIT Al-Kahfi. *SELAPARANG: Jurnal Pengabdian Masyarakat Berkemajuan*, 4(2), 195-199. <https://doi.org/10.31764/jpmb.v4i2.4112>
- Sentani, A. D., Yudianto, A., & Rahmat, D. (2022). Implementasi game Wordwall untuk meningkatkan hasil belajar bahasa Inggris di kelas X SMK Muhammadiyah 1 Kota Sukabumi. *Jurnal Pendidikan Teknologi Informasi dan Vokasional*, 4(1), 1-8. <http://dx.doi.org/10.23960/jpvti.v4.i1.202201>
- Shanahan, T. (2005). *The National Reading Panel Report: Practical Advice for Teachers*. Learning Point Associates/North Central Regional Educational Laboratory (NCREL). <https://eric.ed.gov/?id=ED489535>



Sugiyono. (2022). *Metode Penelitian Kuantitatif*. Bandung: Alfabeta.

Widodo, U., Sudarto, S., Walyono, W., Suyatno, T., & Dewi, M. P. (2022). Improving students' vocabulary mastery: Strategy, obstacles, and problems. *Edukatif: Jurnal Ilmu Pendidikan*, 4(5), 6814-6822. <https://doi.org/10.31004/edukatif.v4i5.3867>

Yulfischa, E. (2023). The correlation between students' vocabulary mastery and their reading comprehension in recount text at MTs Yayasan Misi Islamiyah PT. Inecda Indragiri Hulu (*Doctoral dissertation*, Universitas Islam Negeri Sultan Syarif Kasim Riau). <http://repository.uinsuska.ac.id/id/ep rint/68606>