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# Using the Digital Game Wordwall to Enhance Efl Students' Vocabulary Mastery

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**Abstract.** This study aims to test the effectiveness of utilizing the digital game Wordwall in improving students' vocabulary at SMAN 1 Gowa, specifically in class XI MIPA 3. The research method employed a pre-experimental approach with pretest and posttest measurements. The population for this study consisted of all students at SMAN 1 Gowa, while a random sample of 35 students was selected from Class XI MIPA 3. The analysis revealed that the mean score on the pretest was recorded as 82.34, whereas it increased significantly to 98.31 on the posttest. This indicates that using Wordwall as a digital game effectively enhances students' vocabulary. In conclusion, this research supports the hypothesis that employing Wordwall as a digital game can improve students' vocabulary at SMAN 1 Gowa. The positive outcomes resulting from an increase in posttest scores have important implications for English teachers who may consider incorporating gamebased technology like Wordwall as an engaging and interactive tool for vocabulary learning.

Keywords: Digital Game, Wordwall, Vocabulary Mastery.

# INTRODUCTION

Talking about mastering a foreign language means talking about our ability to produce or receive that language well. Mastering English means being able to speak, write, read and listen to the language well. The more diligent an EFL learner is in reading, the better he will be in writing English. Rinawati, Mirnawati, and Setiawan (2020) explained the results of the study that "Reading skills are very closely related to writing skills, the more and better you read, the better your writing will be." They indicate that there is a relationship between productive skills and receptive skills. However, it is impossible to master these four skills without mastering the vocabulary skills first. In research-type scientific work, vocational mastery affects student's speaking skills (Kuncoro, 2017). This indicates that long before mastering the four skills, vocabulary mastery must first be prepared.

The situation that occurs in English classrooms in Indonesia is that students are too lazy to learn English vocabulary because the method used by English teachers is mostly still the old method, namely memorizing English vocabulary over a certain period, then being assessed by reciting it in front of the class over period. Certain too. The memorization method tends to be boring for students and even makes students stressed because of deadlines and they already have to memorize a set of vocabulary at that deadline. It is in the condition that the teacher should think about and apply methods and media that can increase vocabulary mastery but are done in a fun way.

One of the learning media that teachers are starting to pay attention to, especially young teachers, is game media. There have been many previous studies that prove that game media can transfer knowledge to students effectively and is considered fun by most EFL learners. Digital video games can be beneficial complementary activities for vocabulary acquisition in high school classrooms (Ebrahimzadeh, 2017). Similar findings were also revealed by Lozarito & Segupan (2022) concluded that digital games explicitly enhance learner's vocabulary levels. Based on the explanation above that there is an influence from digital games on increasing the vocabulary of students in a positive direction, the related researchers are to conduct similar research but in different locations to strengthen previous theories and add insight to the audience that learning and games can be integrated to achieve goals learning in a fun way and liked by almost all students in the research locations that the researcher determined. Based on a preliminary study, namely the result of interviews with English teachers in the target school, namely the lack of vocabulary mastery of the students in the target.

One of the digital video games that researchers want to use when conducting treatments is a website game, namely Word Wall, which researchers will ask about health online using a laptop as a learning tool in class.

In English learning, teachers must find teaching strategies so that students can become more active and motivated in the teaching and learning process. One way or strategy for students to be more active in the classroom is to integrate the vocabulary learning processing to succeed. Briggs in Jihad (2021) states that media is a physical tool that can present a message and stimulate students in learning. Based on previous research that has researched about using media in the learning process, by using media or techniques in learning, students can be more encouraged to be interested and focus on the lesson to make students more active and easier to understand the material in the teachinglearning process.

Several media can be employed in the process of learning to teach vocabulary to improve vocabulary mastery. Word wall media is one of the media that may be used to help students improve their vocabulary. A set of words exhibited on a wall, bulletin board, or whiteboard in class is known as word wall media. Consberry (2004) states "Word wall activities encourage active students' participation and engage students while they learn key vocabulary, whether it is learning to explain a word, to compare it to other key concepts". Word wall media is considered one of the media that can be more effective in the process of learning to teach vocabulary.

Based on the results of observations from researchers when conducting the AjarMi program at SMAN 1 Gowa in mid-March 2022, researchers know how the students there are doing regarding their vocabulary mastery. The AjarMi program is part of the independent MBKM program implemented by the English Language Education study program at the State University of Makassar by sending students from the study program to teach in certain schools for four months. From the experience, researchers found the fact that the majority of them had difficulty reciting certain vocabulary. In addition, most students also do not understand how to use a certain vocabulary in a sentence. However, the biggest obstacle is that students do not know the meaning of a vocabulary so when reading a text student have difficulty understanding the text as a whole. It is for this reason that the researcher chose the school as the object of study.

Based on the literature that has been conducted, the researcher found several studies that discuss the use of word wall media for learning media. The writer used a preexperimental design with one group pre-test and post-test design. That is researcher only uses one class as an experimental class by using word wall media in the absence of a control or comparison class. The difference lies in, that the study focuses on increasing students, writer focuses on improving student's vocabulary mastery in their learning.

### **METHOD**

Research is a process of steps used to collect and analyze information to increase our understanding of a topic or issue (Creswell, 2012:3). Their research will use preexperimental research because the researcher wants to know the influence of digital game on the ability to write descriptive text students. This research was conducted at SMAN 1 Gowa. It is located at Jl. Andi Mallombassang No. 1A, Pandang-Pandang, Kec. Somba Opu, Kabupaten Gowa, Sulawesi Selatan. The population of this research is the first-grade students of SMAN 1 Gowa. The sample of this research is Class X MIPA 3 students of SMAN 1 Gowa. The sample was chosen by cluster random sampling technique. The total number of the sample is 35 students.

The instrument that the researcher will use to obtain the data for the research is a test. According to Arikunto (2012: 66), a test is a tool or procedure used to know or measure students' performance by using a set of ways and rules. The test will be used are pretest and post-test. The test use to determine student's vocabulary mastery.

Procedure of Collecting Data. Pretest. The researcher will give a pretest in form of multiple-choice to recognized the students' score in vocabulary mastery. Post-test. After the students were given treatment, the researcher gave a post-test is a test given by students after they are given treatment by teaching WWM. Their post-test was designed to determine the final score and to find out the difference vocabulary mastery before and after the students were given treatment. The post-test was given the same test as the pretest with 25 questions. Their test also last 30 minutes. Treatment. The researcher teaching the students vocabulary mastery using local digital game. Treatment will be carried out for 4 meeting.

*Data Analysis Technique*. To analyse the data, the researcher used SPSS, Scoring the student's correct answer of pretest and post-test. Classifying the student's scores into four classifications in the table 1.

Final Valu Convesion		Predicate	A 44°4 J -	
Scale 100 Scale 4		(Knowledge and Skill)	Attitude	
86-100	4	А	- Var Cood	
81-85	3,66	A-	– Vey Good	
76-80	3,33	B+		
71-75	3,00	В	Good	
66-70	2,66	В-		
61-70	2.33	C+		
56-60	2	С	Poor	
51-55	1,66	C-		
46-50	1,33	D+	Var Door	
0-45	1	D	Vey Poor	

 Table 1. Classifying of Testing

After all the step above done, the next step is for the researcher to calculate the result of the students' learning process will be measured using category technique, in the table 2.

Table 2. Ca	egory Classification
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No.	Classification	Score
1	Vey Good	93-100
2	Good	84-92
3	Aveage	75-83
4	Aveage Poor	<75

# **RESULTS AND DISCUSSION**

### Result

The results of interviews with students show varied views regarding the importance of using translanguaging in the process of learning English. The research was conducted at SMAN 1 Gowa in English subject with a focus on Vocabulary. Their study used a preexperimental type of research with tests conducted on 35 students as a research sample.

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The implementation of the research process was initially face-to-face for the first meeting until the last meetings. The tests carried out were pretest and post-test which received treatment in the form of learning by using Digital Game Wordwall to enhance students' vocabulary mastery in learning English. The results had been analyzed with a quantitative approach using the SPSS application. Before conducting the research, the researcher contacts and met with the English teacher at SMAN 1 Gowa to discuss plans for the research to be carried out. After that, a discussion process was carried out with the English subject teacher. The researcher explained about the research that would be applied to students in class X MIPA 3.

,	Table 3. Students' scores of vocabularies in Pretest						
No.	Respondent	Pre-test	Post-test				
1	MNFR	90	96				
2	SNZ	83	100				
3	NWU	90	96				
4	TD	90	100				
5	FCR	96	100				
6	SNA	90	96				
7	NMA	83	100				
8	NFI	86	100				
9	SDS	83	100				
10	ZZ	93	96				
11	FM	90	96				
12	RAT	86	100				
13	AA	96	96				
14	AAR	90	93				
15	RR	83	100				
16	RFT	90	100				
17	SA	86	100				
18	NV	83	96				
19	FN	83	100				
20	NDS	93	100				
21	IAI	90	100				
22	MKA	76	100				
23	SNJ	70	100				
24	AAA	36	96				
25	D	50	96				
26	UAA	86	96				
27	RAA	80	100				
28	R	76	96				
29	NAR	80	100				
30	MAT	76	100				
31	Μ	76	96				
32	MAF	86	100				
33	FAA	76	100				
34	AV	80	96				
35	ATR	80	100				

Students' score of vocabulary in Pre-test and Post-test

Table 3 shows student score in pretest and posttest. In pretest, the lowest score is 36,

while the highest is 96. In posttest, the lowest score is 93, while the highest is 100.

# The Frequency and Rate Percentage of the Pre-test and Post-test Scores

very good, good, fair, average, and poor. The student score classification in the table 4.

Students' pretest and post-test results were measured using a student rating system of

No.	Classification	Score	Frequency	Percentage	
1	Very Good	93-100	4	11%	
2	Good	84-92	13	37%	
3	Average	75-83	15	43%	
4	Poor	<75	3	9%	
	Total		35	100 %	

 Table 4. Pretest Score Classification

The data on the table 4 above shows that 4 students got very good scores (11%), 13 students got good scores (37%), 15 students got

average scores (43%), and 3 students poor scores (9%).

## Table 5. Post-test Score Classification

No.	Classification	Score	Frequency	Percentage	
1	Very Good	93-100	35	100%	
2	Good	84-92	0	0%	
3	Average	75-83	0	0%	
4	Poor	<75	0	0%	
	Total		35	100%	

Based on the data in table 5, after giving a treatment, there was a very significant

different in students vocabulary skill. It showed that all the students (100%) got very good score.

### **Students Paired Samples Statistics**

**Table 6.** Paired Samples Statistics

Paired/ Samples Statistics						
Mean N Std. Deviation Std. Error Mean						
Pair	Pre-Test	82.34	35	11.767	1.988	
	Post Test	98.31	35	2.153	0.363	

In view of the table 6 above, shows that the mean score of pretests was 82.34 and the standard deviation was 11.767, while the mean score of post-tests was 98.31 and the standard deviation was 2.153. It can be said that the students' vocabulary skill has a significant effect after giving treatment by using Digital Game, Wordwall.

#### Students' T-test of Pre-test and Post-test

A t-test was performed to determine if there was a significant difference in student

scores before and after the test. The criteria for the t-test are that if the probability value is >0.05thein considered valid. Based table 7, it can be seen the probability value =v 0.000 is lower than the level of significance value = 0.05, H0 is rejected and H1 is accepted. So, the researcher can conclude that the value hypothesis H1 in the study is accepted. It means that using Digital Game, Wordwall improve EFL students' vocabulary class X MIPA 3 at SMAN 1 Gowa.

<b>Table 7.</b> T-test of Pretest and Post-test
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Paired Sample Test									
Paired/ Differences									
		Men	Std.	Std.	95% Confience Inteval of the Difference		Т	Df	Sig.
			Deviation	Error					(2-
				Mean					tailed)
					Lower	Upper	-		
Pair 1	Pre-	-15.971	11.754	1.987	-20.009	-11.934	-8.039	34	.000
	test								
	-								
	Post-								
	test								

### Discussion

The researcher conducted the study in order to learn how to make the Digital Game Wordwall more attractive to students and thus enhance their vocabulary mastery. The researcher chose the Digital Game Wordwall as a medium because she wanted to create educational material that could increase students' interest and facilitate their learning. At first some students still did not know about the Wordwall Game. The researcher tried to introduce new media to help students improve their vocabulary mastery.

At the end, the researcher discovered that using Digital Game Wordwall can helps students enhance their vocabulary mastery. These results supported by Pradini (2022); Shei stated the implementation of the word wall as a creative learning activity for 5th-gradei elementary school students at SMAN 1 Gowa got positive results. Wordwall is effective learning media that can use by the teacher to create fun and interesting learning activity in learning English. Wordwall helps students learn vocabulary with fun activities and enhance their motivation to learn English.

According to the following description of the calculations data, the data is homogeneous and normally distributed. eleventh graders of SMAN 1 Gowa showed enhancement in their vocabulary, especially when using the Digital Game Wordwall. Data was collected from pre and post-test of 35 students in class. From Table 4.1 it can be seen that the average pretest of the experimental class before being processed with the Wordwall Game was 82.34. After that, the post-treatment post-test average score increased to 98.31. Therefore, the average post-test score of students in the experimental class is the highest score compared to the pretest score of the experimental class. Their shows that the ability of students' vocabulary mastery is affected and in general affectivities good. The increase that occurred was also noted, according to the researchers, after the administration of the Digital Game Wordwall. It is clear that these games have a big impact on how well students enhance their vocabulary mastery. 0.00 is smaller than 0.005 (0.005) and is a significant value.

The same thing was found in another research, conducted by Illahiyati (2023) about. "The Implementation wall Games in Vocabulary Learning". The main activity assessment shows significant results with an average score above 80 points, which meets the standard passing grade. Based on the average scores in the main activity, it is stated that 10 students successfully achieved scores above the passing grade, indicating that they meet the assessment standards in classroom observation. Meanwhile, Hasram (2021) stated the use of WOW games as an external stimulus, contributes to the increase in scores between the series of pre and posttests. The study proves that mobile phone application in learning increases pupils' comprehension and understanding of vocabulary.

While the researcher was doing the treatment. The researcher found the advantages of the Wordwall Game, the student showed high enthusiasm. This is because students have never had an experience using game based digital media in their language learning. They find the different learning styles fun. During the lesson, the students mentioned their high interest in the media. Some said the media was unique because it matched their age. They were a generation that could not leave their gadgets behind during learning. Additionally, learners enjoyed the

English lesson as learning resources. Happy, not bored and the media makes it easy for students to try all levels of vocabulary mastery. As a result, using Wordwall Game as a learning tool in the classroom has become easy and student can enjoy the activities.

# CONCLUSIONS AND SUGGESTIONS

Based on the results of the research carried out using the pre-test and post-test technique at SMAN 1 Gowa, especially in class XI MIPA 3 as an experimental class. It indicates that the students' achievement in the post-test was higher than pre-test. Their shows that the use of Digital Game Wordwall can enhance students' vocabulary mastery.

The findings indicate that the mean post-test scores were higher than the mean pretest scores. The post-tests mean was 98.31, while the pre-test was 82.34. The fact that the pretest and posttest have a T-test value of 0.000 indicates that vocabulary mastery can be improved as a result of using the Digital Game Wordwall. Their shows that students perform better in the post-test than in the pre-test.

In this research, the use of the digital game Wordwall has succeed in increasing students' vocabulary understanding. This happens because Wordwall provides interactive learning, provides opportunities for structured repetition, includes the context of vocabulary use in everyday life, and has been empirical proven through research data to show a significant increase in students' level of understanding. Thus, Wordwall is an effective in improving students' vocabulary tool understanding.

### REFERENCES

- Brown, H. D. (1994). *Principles of Language Learning and Teaching*. Upper Saddle River, NJ: Prentice Hall.
- Briggs, J. L. (1997) Instruction Design; Principle and Application New York: Educational Technology Publication Inc.
- Collins. (2001). Collins Cobuild English Dictionary for Advanced Learners. New Edition. Birmingham: Harper Collins Publisher.
- Deesri, A. (2002). *Games in The ESL And EFL Class.* The internet *TESL* Journal, Vol. VII, No 9, September 2002. Retrieved

November 12, 2010, From

- Ebrahimzadeh, M. (2017). The Effect of Digital Video Games on EFL Students' Language Learning Motivation. fars : Eric.
- Ford, C. C. (2003). Game Design. New Riders.
- Good, C. V. (1959). *The Dictionary of Education*. New York: McGraw Hill Book Company.
- Hornby. (1989). Oxford Advance Learners Dictionary of Current English. Oxford: University Preiss. Great Britain.
- Harmer. (1991). *The Practice of English Language Learning*. New Edition. London: Longman group.
- Heinich, R. (1993). *Instructional Media (and the new technologies of instruction)*. New York: Macmillan Publishing.
- Ilahiyati, N., Rohmah, Z., Hamamah. (2023). The Implementation of Wordwall Games in Vocabulary Learning. *IJEE* (Indonesian Journal of English Education),
- Jihad, A. (2021). Improving Students Understanding on Simple Present Tense Through Auction Grammar game at the Eight Grade Students of SMP Katolik Belibis Makassar. Makassar: ETERNAL
- Kemp & Dayton. (1985). Planning & Producing Instructional Media. New York: Harper & Row Publishers.
- Kuncoro. (2017). Kolerasi Penguasaan Kosakata dengan Keterampilan Berbicara Siswa dalam Bahasa Inggris. Juornal SAP, p-ISSN: 2527-967X ei-ISSN: 2549-2845.
- Lewis, G. & Bedson, G. (2002). Games for Children. Oxford University Preiss. Gairns, R. & Redman, S. (1998). Working with Words. New York: Cambridge University Preiss
- Mohr, C. & Donald. J. G. (1991). Building Vocabulary Skills.
- Nation. (1990). *Teaching and Learning Vocabulary*. New York: Heinle & Heinle.
- Pradini, P. C., & Adnyayanti, N. L. P. E. (2022). Teaching English vocabulary to young learners with Wordwall application: An experimental study. *Journal of Educational Study*, 2(2), 187-196.
- Rivers & Temperley (1978). A Practical Guide to The Teaching of English as a Second of Foreign Language.
- Richard. & Schmidt. (2001). Approaches and Methods in Language Teaching. New York: Cambridge University Preiss.

https://iteislj.org/Teichniquieis/Deieisri-Gameis.html

Rinawati, M & Setiawan. (2020). Analisis Hubungan Keterampilan Membaca dengan Keterampilan Menulis Siswa Sekolah Dasar. Education Journal: Journal Education Research and Development, 4 (2). pp. 85-96. ISSN p-ISSN: 2548-9291 ei-ISSN: 2548-9399

Segumpan, K. K. (2022). Effectiveness of

*Digital Games in Students' Vocabulary.* international Journal of English Language Teaching, Vol. 10, No.3, pp., 8-14.

- Walace. (2001). Teaching and Supporting Learning in Further Education: Meeting the FENTO Standards. (Further Education) Learning Matters Ltd. www.googlei.co.id/scrabblei,2015.
- Zimmerman, K. S. (2003). *Rules of Play: Game Desain Fundamentals*. MIT Press.