

## The Effect Of Using Wordscapes Application On Students' Vocabulary Mastery At The Eighth Grade Of SMP GKPI Padang Bulan

Gilbert Mathew Situmeang<sup>1</sup>, Lastri Wahyuni Manurung<sup>2</sup>, Bertharia Sohnata Hutauruk<sup>3</sup>

<sup>1,2,3</sup>English Department, Nommensen HKBP University Medan

Email: [gilbert.situmeang@student.uhn.ac.id](mailto:gilbert.situmeang@student.uhn.ac.id)<sup>1</sup>, [lastri.manurung@uhn.ac.id](mailto:lastri.manurung@uhn.ac.id)<sup>2</sup>,  
[bertharia.hutauruk@uhn.ac.id](mailto:bertharia.hutauruk@uhn.ac.id)<sup>3</sup>

### Abstrak

Di kelas delapan SMP GKPI Padang Bulan, penelitian ini mengkaji dampak penggunaan aplikasi wordscapes terhadap penguasaan kosakata siswa. Siswa kelas delapan di SMP GKPI Padang Bulan di Medan, Sumatera Utara, menyelesaikan desain penelitian kuantitatif eksperimental asli untuk penelitian ini. Kelas VIII SMP GKPI Padang Bulan yang berjumlah 50 siswa dan dipilih 40 orang sebagai sampel merupakan populasi penelitian. Sampel dibagi menjadi dua kelompok—kelompok eksperimen dan kelompok kontrol—yang masing-masing menerima instruksi menggunakan pendekatan yang berbeda. Informasi untuk penelitian ini dikumpulkan dari tes kosakata yang terdiri dari lima pertanyaan isian-kosong dan kata-scaping (15 pertanyaan). Untuk kelompok eksperimen dan kelompok kontrol, tes diberikan sebelum dan sesudah. Menurut temuan penelitian, skor rata-rata pre-test kelompok eksperimen adalah 59,75 dan skor rata-rata post-test mereka adalah 76,75. Nilai rata-rata kelompok kontrol pada pre-test dan post-test masing-masing adalah 58,5 dan 69,25. Karena  $t_{hitung} > t_{tabel} = 1,781 > 1,686$  (5%),  $H_0$  ditolak dan  $H_a$  diterima sebagai pengujian hipotesis.

**Kata kunci:** Efek, Siswa, Wordscapes, Aplikasi, Penguasaan Kosakata

### Abstract

In the eighth grade of SMP GKPI Padang Bulan, this study examines the impact of using the wordscapes application on students' vocabulary mastery. The eighth graders at SMP GKPI Padang Bulan in Medan, North Sumatera, completed the genuine experimental quantitative research design for this study. The eighth grade at SMP GKPI Padang Bulan, which has a total of 50 pupils and 40 of them are chosen as samples, makes up the study's population. The sample is split into two groups—an experimental group and a control group—each of which received instruction using a different approach. The information for this study was gathered from a vocabulary test that consisted of five fill-in-the-blank questions and word-scaping (15 questions). For the experimental group and control group, the test was administered before and after. According to the study's findings, the experimental groups' pre-test mean score was 59,75 and their post-test mean score was 76,75. The control group's mean score in the pre-test and post-test was 58,5 and 69,25, respectively. Because  $t_{count} > t_{table} = 1,781 > 1,686$  (5%),  $H_0$  was rejected and  $H_a$  was accepted as the testing hypothesis.

**Keywords:** *Effect, Student, Wordscapes, Application, Vocabulary Mastery*

### INTRODUCTION

Understanding vocabulary is important. The more vocabulary we know, the more we can interact with other people properly. As our vocabulary knowledge grows, we can describe and explain something more accurately. Vocabulary is a crucial factor if people share their ideas through communication and because of that it can be considered as one of the most important things when it comes to know and learn a certain language. Vocabulary holds a crucial part in English. It contributes

as well as an essential meaning to comprehend the foreign language (Nuratika et al., 2019). Derin et al., (2020) stated that a lack of vocabulary knowledge impedes language comprehension and production. Learning vocabulary may help a student become a more successful speaker, listener, reader, and writer. In reality, students or learners frequently struggle with terminology in daily classroom activities. Many students and language learners consider English to be one of the most frequently used and learned languages. "Students of different ages learn to speak English all around the world," writes Harmer (2007), "but their motives for wanting to learn English might vary substantially." To interact with people from different countries, individuals must now master English as a worldwide way to communicate. Teaching through games may be an effective alternative teaching method, especially for teaching vocabulary to junior high school students. It is also a fun pastime for the people who participate in them. Harmer (2001) states that games can make learners be more enthusiastic about learning vocabulary. If game and teaching are mixed together, it has possibility to be entertaining and at the same time one can learn from that as well (Troussas et al., 2020).

Wordscapes is a word-puzzle game created by PeopleFun that can be downloaded on gadgets like Android (Tak, 2021). The activity combines elements of crossword puzzles and Boggle (Hindy, 2022). The player must locate each word using the letters in the circle at the bottom of the screen in order to finish the puzzle (as seen in figure 1). Wordscapes' goal is to make words out of random letters to fill a crossword puzzle. The purpose of Wordscapes differs from that of other types of word games in that it is not to create as many words as possible (Tak, 2021). Depending on the level, the circle contains anything from 3 to 7 letters. There are also bonus words that may be solved for extra coins. The game presently has 6,000 levels and an endless number of extra master levels that may be accessed after finishing the first 6,000. Every day, the game generates a new puzzle (Sobhika, 2022). This study revolves around word puzzle games since they are beneficial and helpful in vocabulary learning. Playing a game is seen not only as a pleasurable activity, but also as an educational tool for learning and strengthening certain abilities. Playing games when teaching English demands a lot of effort on the part of the instructor since the teacher must identify appropriate games to use in the classroom (Bendo & Erbas, 2019).

There are factors why students had difficulty in mastering vocabulary: (1) differences between written words and pronouncing in English; (2) seldom interacting in English; (3) writing the word or sound-spelling mismatches; and (4) some words with similar but distinct meanings; (5) The dissimilarity between English and Indonesian sounds commonly results in mispronunciations (Reskiawan et al., 2020). Because wordscapes is based on a puzzle that may be completed by finding each word using the letters in the circle at the bottom of a screen, the game is special for this reason. This game is fun to play since the goal is quite simple, the difficulty of the game also varies depending on the level of the game, the circle contains anything from 3 to 7 letters.

Vocabulary is linguistic aspect that should be learned and taught. According to Hornby (2000) vocabulary is:

1. Terms that people are familiar with
2. A list of words in particular languages
3. Languages which used by many people when talk about a particular thing.
4. A few words with its meanings, as in a certain source for linguistic education purposes

The most crucial aspect of studying a mother tongue or any other language is developing one's vocabulary. One of the most crucial aspects of learning a foreign language, along with phonetics/pronunciation, grammar, is vocabulary (Pan & Xu, 2011). According to Kher (2019), the

following are some instances of how important and valuable vocabulary can be in a variety of parts of your life: 1. To do well in entrance examinations, 2. To understand what you read, 3. The ability to write effectively, 4. The ability to communicate well in general, 5. Influence others, 6. To boost one's self-esteem.

Things that's always necessary for linguistic education in foreign language (like English) is vocabulary mastery. We can divide vocabulary mastery into four parts which are "pronunciation, spelling, grammar, and meaning." Vocabulary has two types and it is divided into two categories: active and passive. The term "active vocabulary" refers to the words that children are taught and may employ in speech or writing as spoken or written expressions. The terms that children identify and comprehend in context are referred to as passive vocabulary. This form of passive vocabulary is seen in listening or reading content (Harmer, 2007). Because languages are made up of words, teaching vocabulary is an essential part of learning a language (Alqahtani, 2015). It is very hard to pick up a language without words; even human communication is founded on words. In vocabulary, one thing that's often discussed among people is about how to teach vocabulary. During teaching, problems would often appear when teacher do learning process with students. They are struggling with how to instruct students in order to get satisfactory outcomes. Teachers should be aware that teaching vocabulary is something new and distinct from what the students are used to.

According to Susanto (2017) there are several techniques for teaching vocabulary: 1. Using Objects to Teach Vocabulary, 2. Developing vocabulary through drills, spelling, and active participation, 3. Using drawing and pictures to teach vocabulary, 4. Using mime, emotions, and gestures to teach vocabulary, 5. Using enumeration and comparison to teach vocabulary, 6. Using Contextual Guessing to Teach Vocabulary. Wordscapes is a PeopleFun word puzzle video game that is available on Android and iOS and the gameplay is straightforward. You must create words using the alphabets provided. On one level, you must create a large number of words using the same letters. Swipe your fingertips from one letter to the next to form words. If you make a proper word, it will automatically fill the puzzle boxes, and you will then have to build another word. Wordscape have been downloaded more than 50 million time with approximately 1 million reviews. According to Thorp in Saleh (2019) Wordscapes is a popular game with many players and is adored by viewers 8 and older, according to some comments. This game is great for encouraging children to consider their vocabulary and spelling. Bryan claims that wordscapes is not a cooperative game in 2020. Even inside the app, you are unable to communicate with other players. However, that doesn't imply you may play it socially, at least not with others in your immediate vicinity.

Furthermore, by giving the kid the chance to study technology and develop more independence, instructional computer apps have a positive impact on learning and self-esteem (Wartella & Jennings, 2000). Overall, playing electronic games with ability and expertise yields better outcomes than attempting to finish them or advance through the levels (Ryan, Rigby, & Przybylski, 2006). According to Saleh (2019), playing games like "Wordscape Game" might help create a productive learning environment, especially for vocabulary growth. Wordscapes are another example of a repetitious game. The only difference between each stage's gameplay is how many words we need to fill in order to complete it. When a player is stuck in a stage, their only choice is to make any wild guesses in the hopes that they will match and finish the stage. This element might make players bored and reluctant to continue the game. When all of these factors are taken into account, it can be said that wordscapes can help kids learn vocabulary.

## METHOD

The research used SMP Swasta GKPI Padang Bulan students who had mastered the use of wordscapes, and the analysis employed was actual experimental quantitative methodologies. Research design, according to Ary (2010), is "the researcher's strategy for moving forward in order to learn about some group or phenomenon in its environment." The eighth graders of SMP GKPI Padang Bulan Medan made up the study's population. A sample of 40 eighth graders from SMP GKPI Padang Bulan Medan was used by the researcher. In this study, purposive sampling was used. The explanation states that the researcher chose to choose a sample of 20 students from VIII-1 and 20 students from VIII-2 for the experimental group. Quantitative data were used to collect the data. To get quantitative data, the vocabulary test score was used. In order to gather quantifiable data, the writer gave the kids a vocabulary exam. The students were required to respond to 20 questions about vocabulary. The pre-test, treatment, and post-test were given to the experimental group as well as pre-test and post-test to the control group but without treatment in order to gather data. After the earlier phases were finished, the researcher calculated the students' scores. The writer utilized this technique to compute the test's score. The overall score range for the test is 0-100 when using this calculation and adding the scores for the correct answers. The research used SMP Swasta GKPI Padang Bulan students who had mastered the use of wordscapes, and the analysis employed was actual experimental quantitative methodologies. Research design, according to Ary (2010), is "the researcher's strategy for moving forward in order to learn about some group or phenomenon in its environment." The eighth graders of SMP GKPI Padang Bulan Medan made up the study's population. A sample of 40 eighth graders from SMP GKPI Padang Bulan Medan was used by the researcher. In this study, purposive sampling was used. The explanation states that the researcher chose to choose a sample of 20 students from VIII-1 and 20 students from VIII-2 for the experimental group. Quantitative data were used to collect the data. To get quantitative data, the vocabulary test score was used. In order to gather quantifiable data, the writer gave the kids a vocabulary exam. The students were required to respond to 20 questions about vocabulary. The pre-test, treatment, and post-test were given to the experimental group as well as pre-test and post-test to the control group but without treatment in order to gather data. After the earlier phases were finished, the researcher calculated the students' scores. The writer utilized this technique to compute the test's score. The overall score range for the test is 0-100 when using this calculation and adding the scores for the correct answers.

$$S = \frac{R}{N} \times 100\%$$

Where:

S = Score number of the test

R = Number of the correct answer(s)

N = Number of the question

According to Arikunto (2014), validity is defined as a measurement that demonstrates the degrees of an instrument's validity. It refers to how well the exam measures the subject matter and learning outcomes throughout the instruction time.

$$R_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\} \{N \sum Y^2 - (\sum Y)^2\}}}$$

Where:

R<sub>xy</sub> : Correlation coefficient between variables

N : Number of respondents

∑XY : The result of multiplication from total score of X and total score of Y

∑X : Total score of X

∑Y : Total score of Y

∑X<sup>2</sup> : Quadratic of total score of X

∑Y<sup>2</sup> : Quadratic of total score of Y

Reliability can be understood as an instrument that can be trusted to gather data since it is of high quality (Arikunto, 2014). The researcher employed a formula:

$$KR_{21} = \frac{K}{K-1} \left[ 1 - \frac{M(K-M)}{K(S)^2} \right]$$

KR<sub>21</sub> = Reliability of the test

M = Mean of test

K = Number of items in the test

S<sup>2</sup> = Standard Deviation

After teaching vocabulary with Wordscapes, the researcher applied statistical analysis data. The researcher used the following techniques for analyzing data: 1. Mean, 2. Standard Deviation, 3. Normality, 4. Homogeneity, 5. Hypothesis testing.

## FINDINGS

The results of this study discuss and assess how using the wordscapes program affected students at the eighth grade SMP GKPI Padang Bulan's vocabulary mastery. The results of this study show that using Wordscapes to teach vocabulary mastery has a substantial impact because the experimental group's mean (76,75) is higher than the control group's mean (69,25). Furthermore, the calculation data reveals that t<sub>count</sub> (1,780) was greater than t<sub>table</sub> (1,686) or t<sub>count</sub> > t<sub>table</sub> = 1,780 > 1,686.

**Table 1. The T-Table Value**

df	One-Tailed Test			
	0,25	0,10	0,05	0,025
	Two-Tailed Test			
	0,50	0,20	0,10	0,05
1	1,000000	3,077684	6,313752	12,706205
2	0,816497	1,885618	2,919986	4,302653
3	0,764892	1,637744	2,353363	3,182446
4	0,740697	1,533206	2,131847	2,776445
5	0,726687	1,475884	2,015048	2,570582
6	0,717558	1,439756	1,943180	2,446912
7	0,711142	1,414924	1,894579	2,364624
8	0,706387	1,396815	1,859548	2,306004
9	0,702722	1,383029	1,833113	2,262157
10	0,699812	1,372184	1,812461	2,228139
11	0,697445	1,363430	1,795885	2,200985

12	0,695483	1,356217	1,782288	2,178813
13	0,693829	1,350171	1,770933	2,160369
14	0,692417	1,345030	1,761310	2,144787
15	0,691197	1,340606	1,753050	2,131450
16	0,690132	1,336757	1,745884	2,119905
17	0,689195	1,333379	1,739607	2,109816
18	0,688364	1,330391	1,734064	2,100922
19	0,687621	1,327728	1,729133	2,093024
20	0,686954	1,325341	1,724718	2,085963
21	0,686352	1,323188	1,720743	2,079614
22	0,685805	1,321237	1,717144	2,073873
23	0,685306	1,319460	1,713872	2,068658
24	0,684850	1,317836	1,710882	2,063899
25	0,684430	1,316345	1,708141	2,059539
26	0,684043	1,314972	1,705618	2,055529
27	0,683685	1,313703	1,703288	2,051831
28	0,683353	1,312527	1,701131	2,048407
29	0,683044	1,311434	1,699127	2,045230
30	0,682756	1,310415	1,697261	2,042272
31	0,682486	1,309464	1,695519	2,039513
32	0,682234	1,308573	1,693889	2,036933
33	0,681997	1,307737	1,692360	2,034515
34	0,681997	1,306952	1,690924	2,032245
35	0,681564	1,306212	1,689572	2,030108
36	0,681366	1,305514	1,688298	2,028094
37	0,681178	1,304854	1,687094	2,026192
<b>38</b>	0,681001	1,304230	<b>1,685954</b>	2,024394
39	0,680833	1,303639	1,684875	2,022691
40	0,680673	1,303077	1,683851	2,021075

The researcher employs the requirements of the One-Tailed Test (0.05) number 38 (20+20-2) with the result (1.685954), but rounds up to 1.686. Based on the table above, the number 38 is derived from the total number of students investigated by the researcher minus 2, where the writer discovers 40 students (20 students for the experimental group and 20 students for the control group).

## DISCUSSION

In this study, the researcher teaches eighth-grade students at SMP GKPI Padang Bulan English using the wordscapes application. The writer successfully gathered information via vocabulary tests in order to answer the researcher's query. This study aims to find out how utilizing the Wordscapes program in English lessons affects students' ability to learn new words. PeopleFun created the word-puzzle game Wordscapes, which can be downloaded on devices like Android (Tak, 2021). Wordscapes come with both benefits and drawbacks. Regarding the benefits, wordscapes can be utilized as media to teach vocabulary using straightforward guidelines. According to studies, employing specific tablet software in a controlled environment increases academic accomplishment



in a short length of time (Schacter & Jo, 2016). Hindy (2022) cites the game's obnoxious advertising as one of its drawbacks, which deters free players from playing it. The game (Wordscape) combines language learning, physical activity, and literacy instruction when it comes to teaching vocabulary. Alliteration, visual and auditory cues, repetition, and phonics education are all aided by it (Saleh, 2019).

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