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## The Effect of Word Search Puzzle Teaching Media to the Vocabulary Mastery of Grade Seven of SMP Negeri 12 Pematang Siantar

Emelia Febrina Tarigan<sup>1✉</sup>, Sanggam Siahaan<sup>2</sup>, Basar Lolo Siahaan<sup>3</sup>

University of HKBP Nommensen Pematang Siantar

Email: [emeliatarigan61@gmail.com](mailto:emeliatarigan61@gmail.com)<sup>✉</sup>

### Abstrak

Penelitian ini bertujuan untuk mengetahui efektivitas teka-teki pencarian kata sebagai media penguasaan kosakata siswa. Penelitian ini menggunakan desain kuasi-eksperimen. Variabel bebasnya adalah pengaruh penggunaan Word Search Puzzle, sedangkan variabel terikatnya adalah penguasaan kosakata. Populasinya adalah siswa kelas 7 SMP Negeri 12 P. Siantar yang berjumlah 306 orang. *Purposive sampling* digunakan untuk memilih dua kelas. Kelompok eksperimen adalah VII-4, sedangkan kelompok kontrol adalah VII-5. Hasil penelitian menunjukkan bahwa rata-rata skor kelompok eksperimen dan kontrol masing-masing sebesar 15,73 dan 11,17. Siswa pada kelompok eksperimen menunjukkan tingkat validitas (0,79) dan reliabilitas (0,88) yang lebih tinggi dibandingkan dengan siswa kelompok kontrol. Selanjutnya, nilai  $T_{hitung}$  melebihi  $T_{tabel}$  ( $2,81 > 2$ ) pada taraf signifikansi 0,05 dengan df: 66 yang menunjukkan bahwa Word Search Puzzle berpengaruh signifikan terhadap penguasaan kosakata siswa kelas 7 SMP Negeri 12 Pematang Siantar.

Kata Kunci: *Efek, Media, Penguasaan Kosakata, Teka-Teki Pencarian Kata*

## Abstract

This research aims to find out the effectiveness of word search puzzles as media for students' vocabulary mastery. This research used quasi-experimental design. The independent variable was the effect of utilizing Word Search Puzzle, while the dependent variable pertains to vocabulary mastery. The population encompasses 7<sup>th</sup>-grade students of SMP Negeri 12 P. Siantar, totaling 306 individuals. Purposive sampling was employed, selecting two classes. The experimental group was VII-4, while control group was VII-5. The results of this research revealed that the average scores of experimental and control groups were 15.73 and 11.17 respectively. The students in experimental group demonstrated higher levels of validity (0.79) and reliability (0.88) compared to those in control group. Furthermore, the  $T_{\text{test}}$  value exceeded the  $T_{\text{table}}$  ( $2.81 > 2$ ) at significance level of 0.05 with df: 66, indicating that Word Search Puzzle had a significant effect on vocabulary mastery of 7<sup>th</sup> grade students at SMP Negeri 12 Pematang Siantar.

Keywords: *Effect, Media, Vocabulary Mastery, Word Search Puzzle*

## INTRODUCTION

Language is a kind of human communication that involves arranging sounds or spoken words to create larger units like morphemes, words, and sentences. Noermanzah (2019) explains that language is message given in form of expression as medium of communication in specific contexts during diverse activities, in accordance with Bach, Devitt & Hanley (2006). Human interaction with others to meet a variety of requirements in life is made possible by communication. Humans can never live alone without engaging with others.

English is a crucial subject in education, and teaching should focus on not just theory but also practical communication skills. Ananda, et al (2017) argues that teaching is about more than just sharing information; it also involves guiding student behavior to achieve educational goals. Educators need to be able to use a variety of teaching methods that are suited to students' individual needs, abilities, and stages of development.

According to Megawati (2016), the English language encompasses three essential elements: Grammar, Vocabulary, and Pronunciation. Mastery of these components is crucial for enhancing one's English proficiency. To achieve optimal language skills, a balanced combination of study material and practice is necessary. In Indonesia, the enhancement of English proficiency can be achieved through organized language classes, both formal and informal. Widyasari (2016) emphasizes the significance of implementing engaging and enjoyable learning methods to improve students' English skills in the educational setting.

Vocabulary includes words we know and use, as well as terms used by others on specific topic (Campillo in Munawir & Ramli, 2021). Having broad vocabulary makes communication easier and is crucial for language learning (Richard & Renandya in Rusdi, 2021). Educators should prioritize teaching vocabulary to enhance students' language skills, as it is essential for reading, speaking, listening, and writing (Njoroge, 2013). In language teaching, vocabulary holds the same importance as grammar and pronunciation, as students continually learn and expand their knowledge. Overall, strong vocabulary is necessary for effective communication.

The researchers observed issues with vocabulary instruction during their teaching practice, particularly with the use of traditional teaching methods that resulted in passive learning and rote memorization. Additionally, teachers did not utilize teaching aids or media to engage students and enhance their vocabulary learning experience.

Using games to teach English vocabulary is both engaging and effective. By including fun activities, students can remember information better and learn faster. This interactive method allows for hands-on learning, making the process more enjoyable and memorable. Ultimately, incorporating games into vocabulary lessons creates a stimulating environment that enhances student motivation and understanding.

The Word Search Puzzle is an engaging game where players search for hidden words by identifying their first letters in a grid of letters. It is an educational game that promotes critical thinking and collaboration among students (Vossoughi & Zargar, 2009). Thornbury (2006) states the significant role of identifying in cognitive tasks such as unscrambling anagrams and word search puzzles. Karim & Hasbullah (in Megawati, 2020) posited that word search puzzles serve as captivating and effective tool for language instruction. Several benefits of word search puzzle are including anti-boredom tool, keeping brain active, creating longer vocabulary list, supporting language acquisition, enabling to unwind and have fun, improving spelling (Sutherland, 2009). Overall, the Word Search Puzzle is a valuable tool for students to enhance their language skills in a fun and interactive manner.

Previous studies have shown positive results in using word search puzzles to enhance vocabulary proficiency in students. One research by Anggreni and Lohita (2017) found 13% improvement in vocabulary learning outcomes among students at SMPN 12 Mataram. Another research by Al-Furqon (2017) emphasized the importance of effective teaching techniques, such as word search puzzles, in enhancing vocabulary acquisition in first grade students. Third research by Lubis (2021) confirmed the significant impact of word search puzzles on enhancing vocabulary mastery in eighth grade students at SMP N 5

Padangsidempuan. These findings support the use of interactive and engaging activities like word search puzzles to improve students' language skills.

Based on the explanation above, the researchers interested to make research with the title "The Effect of Word Search Puzzle Teaching Media to the Vocabulary Mastery of Grade Seven of SMP Negeri 12 Pematang Siantar".

## RESEARCH METHOD

This research used quantitative research methods with a quasi-experimental design to evaluate the impact of Word Search Puzzle teaching media on improving vocabulary skills in seventh-grade students. The research aimed to determine if there was a causal relationship between the teaching media and vocabulary mastery by comparing results from experimental group that received the intervention and a control group that did not. Sugiyono (2019) stated that the independent variable has significant impact on dependent variable. In this research, the independent variable was the use of Word Search Puzzle teaching media. The dependent variable, as defined by Sugiyono (2019), is influenced by the independent variable. In this research, the dependent variable focused on vocabulary testing.

The concept of population refers to the collective number of individuals residing in a specific location. As mentioned by Arikunto (2010), population encompasses all subjects under research. Therefore, the population encompassed 7<sup>th</sup>-grade students of SMP Negeri 12 P. Siantar across the nine classes, totaling 306 individuals. Sample is a subset of individuals with specific attributes within a population (Ary et al., 2010). Purposive sampling was employed, selecting two classes. The experimental group was class VII-4, while the control group was class VII-5.

Data collecting employed were pre-test, treatment, and post-test. Data analysis carried out after collecting data. Researchers applied formula of Hatch & Farhady (1982) to count the t-test.

$$t_{test} = \frac{\bar{X}_e - \bar{X}_c}{SE(\chi_e - \chi_c)}$$

*(X<sub>e</sub> = Experimental post-test mean; X<sub>c</sub> = Control post-test mean; SE = standard error)*

## RESULT AND DISCUSSION

### Data Analysis

In order to accurately assess students' proficiency levels, it is essential for the researchers to calculate both the mean and standard deviation. The mean is determined by

summing up all the scores in a given set and dividing by the total number of scores, while the standard deviation provides insight into the extent of variability within the scores.

Table 1. The Students' Mark in Experimental Group.

No	Student's Name	Pre-Test (X)	Post-Test (Y)	X <sup>2</sup>	Y <sup>2</sup>	XY
1	Alief	25	40	625	1600	1000
2	Alif	35	45	1225	2025	1575
3	Aron	25	50	625	2500	1250
4	Carissa	40	50	1600	2500	2000
5	Chasdo	50	55	2500	3025	2750
6	Efrin	40	50	1600	2500	2000
7	Fahri	25	55	625	3025	1375
8	Fahreza	40	45	1600	2025	1800
9	Ferry	35	45	1225	2025	1575
10	Fiqih	35	55	1225	3025	1925
11	Fitri	25	40	625	1600	1000
12	Fristi	25	45	625	2025	1125
13	Gadis	35	55	1225	3025	1925
14	Gala	50	45	2500	2025	2250
15	Hannafi	35	40	1225	1600	1400
16	Irvan	50	55	2500	3025	2750
17	Islamuddin	50	50	2500	2500	2500
18	Jeslyn	40	50	1600	2500	2000
19	Julio	30	45	900	2025	1350
20	Kevin	25	45	625	2025	1125
21	Kristtota	40	45	1600	2025	1800
22	Nazril	40	55	1600	3025	2200
23	Nunut	55	60	3025	3600	3300
24	Parel	40	45	1600	2025	1800
25	Rafael	45	55	2025	3025	2475
26	Robby	45	45	2025	2025	2025
27	Shalom	40	55	1600	3025	2200
28	Tesa	55	50	3025	2500	2750
29	Tyas	40	55	1600	3025	2200
30	Zidan	35	40	1225	1600	1400
31	Efraim	30	40	900	1600	1200

32	Mikha	30	50	900	2500	1500
33	Intan	50	55	2500	3025	2750
34	Chicka	50	60	2500	3600	3000
N = 34		$\Sigma X = 1310$	$\Sigma Y = 1670$	$\Sigma X^2 = 53300$	$\Sigma Y^2 = 83200$	$\Sigma XY = 65275$

#### The Level of Student's Ability in Pre-test (Experimental)

- a. The mean of the pre-test

$$(\bar{X}) = \frac{\Sigma \text{Pre-Test}}{N} = \frac{2135}{34} = 62,79$$

- b. Standard Deviation

$$S = \frac{1}{N} \sqrt{\{(N \Sigma x^2) - (\Sigma x)^2\}}$$

$$S = \frac{1}{34} \sqrt{(34 \times 136575) - (2135)^2}$$

$$S = \frac{1}{34} \sqrt{85325} = \frac{1}{34} (292,10)$$

$$S = 8,5$$

In order to understand the skill level of the students, the researchers applied the criteria outlined by David (1969). There were three level ability of the students, namely high, median and low level. The high level had the criteria  $M + SD = 62,79 + 8,59 = 71,38$ . It concluded that the students that got the score pre-test more than 71,38, they had the high ability. The median level had the criteria  $M - SD = 62,79 - 8,59 = 54,2$  and  $M + SD = 62,79 + 8,59 = 71,38$ . It concluded that the students that had the score pre-test between 54,2 and 71,38 they had the median ability. The low level had the criteria  $M - SD = 62,79 - 8,59 = 54,2$ . It concluded that the students that had the score pre-test less than 54,2 they had the low ability.

Table 2. Level of Student's Ability in Pre-test (Experimental Group).

Level	The Criteria	Total Students	Percentage
High	$M + SD = 62,79 + 8,59 = 71,38$	5	14,7 %
Medium	$M - SD \leftrightarrow M + SD$ $62,79 - 8,59 \quad 62,79 + 8,59$ $54,2 \quad 71,38$	21	61,76 %
Low	$M - SD = 62,79 - 8,59 = 54,2$	3	8,82 %

#### The Level of Student's Ability in Post-test (Experimental)

- a. The mean of the Post-test

$$(\bar{X}) = \frac{\Sigma \text{Post-Test}}{N} = \frac{2570}{34} = 75,58$$

b. Standard Deviation

$$S = \frac{1}{N} \sqrt{\{(N \sum Y^2) - (\sum Y)^2\}}$$

$$S = \frac{1}{34} \sqrt{(34 \times 197650) - (2570)^2}$$

$$S = \frac{1}{34} \sqrt{115200}$$

$$S = \frac{1}{34} (339,41)$$

$$S = 9,98$$

In order to understand the skill level of the students, the researchers applied the criteria outlined by David (1969). The researchers categorized the students' level of ability in the experiment into three distinct categories: high, median, and low. Those who scored above 85.56 ( $M + SD = 75,58 + 9,98$ ) were classified as having a high level of ability, while those who scored between 65.6 ( $M - SD = 75,58 - 9,98$ ) and 85.56 ( $M + SD = 75,58 + 9,98$ ) were categorized as having a median level of ability. Students who scored below 65.6 ( $M - SD = 75,58 - 9,98$ ) were considered to have a low level of ability. This method of categorization allowed for a clear understanding of the varying levels of aptitude among the students.

Table 3. Level of Student's Ability in Post-test (Experimental Group)

Level	The Criteria	Total Students	Percentage
High	$M + SD = 75,58 + 9,98 = 85,56$	11	32,35 %
Medium	$M - SD \leftrightarrow M + SD$ $75,58 - 9,98 \quad 75,58 + 9,98$ $65,6 \quad 85,56$	15	44,11 %
Low	$M - SD = 75,58 - 9,98 = 65,6$	8	23,52 %

Table 4. The Students' Mark in Control Group.

No	Student's Name	Pre-Test (X)	Post-Test (Y)	X <sup>2</sup>	Y <sup>2</sup>	XY
1	Aby	25	40	625	1600	1000
2	Alfin	35	45	1225	2025	1575
3	Anisa	25	50	625	2500	1250
4	Astika	40	50	1600	2500	2000
5	Ayu	50	55	2500	3025	2750
6	Azkana	40	50	1600	2500	2000
7	Bent	25	55	625	3025	1375
8	Evhan	40	45	1600	2025	1800
9	Fazril	35	45	1225	2025	1575

10	Fiqih	35	55	1225	3025	1925
11	Gideon	25	40	625	1600	1000
12	Hailkal	25	45	625	2025	1125
13	Ifnu	35	55	1225	3025	1925
14	Ira	50	45	2500	2025	2250
15	Johan	35	40	1225	1600	1400
16	Kafka	50	55	2500	3025	2750
17	Lamhot	50	50	2500	2500	2500
18	Ladies	40	50	1600	2500	2000
19	Lidia	30	45	900	2025	1350
20	Mahira	25	45	625	2025	1125
21	Mufarid	40	45	1600	2025	1800
22	Muhammad	40	55	1600	3025	2200
23	M. Fahtoni	55	60	3025	3600	3300
24	Rachel	40	45	1600	2025	1800
25	Rafael	45	55	2025	3025	2475
26	Retno	45	45	2025	2025	2025
27	Royena	40	55	1600	3025	2200
28	Ruth	55	50	3025	2500	2750
29	Veliza	40	55	1600	3025	2200
30	Yazid	35	40	1225	1600	1400
31	Zahra	30	40	900	1600	1200
32	Zifana	30	50	900	2500	1500
33	Sonia	50	55	2500	3025	2750
34	Putri	50	60	2500	3600	3000
N = 34		$\Sigma X = 1310$	$\Sigma Y = 1670$	$\Sigma X^2 = 53300$	$\Sigma Y^2 = 83200$	$\Sigma XY = 65275$

The Level of Student's Ability in Pre-test (Control)

- a. The mean of the pre-test

$$(\bar{X}) = \frac{\Sigma \text{Pre-Test}}{N} = \frac{1310}{34} = 38,52$$

- b. Standard Deviation (SD)

$$S = \frac{1}{N} \sqrt{\{(N \Sigma X^2) - (\Sigma X)^2\}} = \frac{1}{34} \sqrt{(34 \times 53300) - (1310)^2} = \frac{1}{34} \sqrt{96100} = \frac{1}{34} (310) = 9,11$$

In order to understand the skill level of the students, the researchers applied the criteria outlined by David (1969). There were three level ability of the students, namely high,

median and low level. The high level had the criteria  $M + SD = 38,32 + 9,11 = 47,43$  It concluded that the students that got the score pre-test more than 47,43, they had the high ability. The median level had the criteria  $M - SD = 38,32 - 9,11 = 29,21$  and  $M + SD = 38,32 + 9,11 = 47,43$ . It concluded that the students that had the score pre-test between 29,21 and 47,43 they had the median ability. The low level had the criteria  $M - SD = 38,32 - 9,11 = 29,21$ . It concluded that the students that had the score pre-test less than 29,21, they had the low ability.

Table 5. Level of Student's Ability in Pre-test (Control Group)

Level	The Criteria	Total Students	Percentage
High	$M + SD = 38,32 + 9,11 = 47,43$	7	20,58 %
Medium	$M - SD \leftrightarrow M + SD$ $38,32 - 9,11 \quad 38,32 + 9,11$ $29,21 \quad 47,43$	12	35,29%
Low	$M - SD = 38,32 - 9,11 = 29,21$	6	17,64%

The Level of Student's Ability in Post-test (Control)

a. The mean of the pre-test

$$(\bar{X}) = \frac{\sum \text{Post-Test}}{N} = \frac{1670}{34} = 49,11$$

b. Standard Deviation (SD)

$$S = \frac{1}{N} \sqrt{\{(N \sum Y^2) - (\sum Y)^2\}} = \frac{1}{34} \sqrt{(34 \times 197650) - (2570)^2}$$

$$S = \frac{1}{34} \sqrt{115200} = \frac{1}{34} (339,41) = 9,98$$

In order to understand the skill level of the students, the researchers applied the criteria outlined by David (1969). The researchers categorized the students' level of ability into three distinct categories: high, median, and low. Those who scored above 59,09 ( $M + SD = 49,11 + 9,98$ ) were classified as having a high level of ability, while those who scored between 39,13 ( $M - SD = 49,11 - 9,98$ ) and 59,09 ( $M + SD = 49,11 + 9,98$ ) were categorized as having a median level of ability. Students who scored below 39,13 ( $M - SD = 49,11 - 9,98$ ) were considered to have a low level of ability. This method of categorization allowed for a clear understanding of the varying levels of aptitude among the students.

Table 6. Level of Student's Ability in Post-test (Control Group)

Level	The Criteria	Total Students	Percentage
High	$M + SD = 49,11 + 9,98 = 59,09$	2	5,8 %
Medium	$M - SD \leftrightarrow M + SD$ $49,11 - 9,98 \quad 49,11 + 9,98$ $39,13 \quad 59,09$	27	79,41%
Low	$M - SD = 49,11 - 9,98 = 39,13$	5	14,70%

Analysis the T-test

Table 7. Entire Data of Experimental and Control Groups.

The Control Group					The Experimental Group				
No	Pre-Test (x1)	Post-Test (x2)	Deviation (X)	X <sup>2</sup>	No	Pre-Test (y1)	Post-Test (y2)	Deviation (Y)	Y <sup>2</sup>
1.	25	40	15	225	1.	50	60	10	100
2.	35	45	10	100	2.	45	55	10	100
3.	25	50	25	625	3.	75	85	10	100
4.	40	50	10	100	4.	45	60	15	225
5.	50	55	5	25	5.	70	85	15	225
6.	40	50	10	100	6.	55	65	10	100
7.	25	55	30	900	7.	60	80	20	400
8.	40	45	5	25	8.	75	90	15	225
9.	35	45	10	100	9.	70	85	15	225
10.	35	55	20	400	10.	60	75	15	225
11.	25	40	15	225	11.	65	65	0	0
12.	25	45	20	400	12.	55	75	20	400
13.	35	55	20	400	13.	55	65	10	100
14.	50	45	5	25	14.	65	80	15	225
15.	35	40	5	25	15.	65	85	20	400
16.	50	55	5	25	16.	75	90	15	225
17.	50	50	0	0	17.	55	70	15	225
18.	40	50	10	100	18.	55	65	10	100
19.	30	45	15	225	19.	60	70	10	100
20.	25	45	20	400	20.	65	85	20	400
21.	40	45	5	25	21.	60	75	15	225
22.	40	55	15	225	22.	55	60	5	25

23.	55	60	5	25	23.	60	85	25	625
24.	40	45	5	25	24.	60	75	15	225
25.	45	55	10	100	25.	75	80	15	225
26.	45	45	0	0	26.	60	85	25	625
27.	40	55	15	225	27.	70	75	15	225
28.	55	50	5	25	28.	70	80	10	100
29.	40	55	15	225	29.	75	85	10	100
30.	35	40	5	25	30.	65	70	5	25
31.	30	40	10	100	31.	60	80	20	400
32.	30	50	20	400	32.	65	80	15	225
33.	50	55	5	25	33.	60	60	0	0
34.	50	60	10	100	34.	80	90	10	100
$\Sigma x_1 = 1310$		$\Sigma x_2 = 1670$	$\Sigma X = 380$	$\Sigma X^2 = 5950$	$\Sigma y_1 = 2135$		$\Sigma y_2 = 2570$	$\Sigma Y = 535$	$\Sigma Y^2 = 10225$

Data of Calculations :

$$M_x = \frac{\Sigma X}{N} = \frac{380}{34} = 11,17$$

$$M_y = \frac{\Sigma y}{N} = \frac{535}{34} = 15,73$$

$$X^2 = \Sigma x^2 - \frac{(\Sigma X)^2}{N} = 5950 - \frac{(380)^2}{34} = 5950 - 4247,05 = 1702,95$$

$$Y^2 = \Sigma Y^2 - \frac{(\Sigma Y)^2}{N} = 10225 - \frac{(535)^2}{34} = 10225 - 8418,38 = 1806,62$$

$$T(t) = \frac{M_x - M_y}{\sqrt{\left[ \frac{d x^2 + d y^2}{|N_x + N_y| - 2} \right] \left[ \frac{1}{N_x} + \frac{1}{N_y} \right]}} = \frac{11,17 - 15,73}{\sqrt{\left[ \frac{1702,95 + 1806,62}{|34 + 34| - 2} \right] \left[ \frac{1}{34} + \frac{1}{34} \right]}} = \frac{4,56}{\sqrt{\left[ \frac{3509,57}{66} \right] \left[ \frac{2}{34} \right]}}$$

$$T(t) = \frac{4,56}{\sqrt{53,17 \times 0,05}} = \frac{4,56}{\sqrt{2,65}} = \frac{4,56}{1,62} = 2,81$$

The statistical analysis revealed the data of both experimental and control groups in pre-test and post-test. The calculated result demonstrated that the T-test was 2.81.

$$t = (1 - \frac{1}{2}) \alpha : n_1 + n_2 - 2 = (1 - 0,5) 0,05 : 34 + 34 - 2 = (1 - 0,025) ; 66 = 0,975$$

In order to test the hypothesis, the data were applied to the selected T-test formula. This analysis was conducted with the intent of determining the validity of the hypothesis, ultimately leading to a definitive acceptance or rejection.

$$T \text{ test} > T \text{ table} \quad (p = 0,05) \text{ df} = 66$$

$$2,81 > 2 \quad (p = 0,05) \text{ db} = 66$$

It can be stated that the null hypothesis ( $H_0$ ) has been disproven while the alternative hypothesis ( $H_a$ ) has been validated. The students who utilized the Word Search Puzzle

exhibited superior mastery of vocabulary compared to those who did not. Therefore, it is evident that the Word Search Puzzle significantly enhances students' proficiency in vocabulary acquisition, making it a valuable tool in educational research.

## Findings

Based on analyzed the data, some findings can be formulated as follow:

1. Students at grade 7 of SMP Negeri 12 Pematang Siantar mostly affected their mastering vocabulary by using Word Search Puzzle.
2. The research comprised two distinct classes, each comprised of 34 students: an experimental group and a control group.
3. The experimental group engaged in vocabulary mastery through Word Search Puzzles, whereas control group underwent vocabulary mastery without such puzzles.
4. The average score of the experimental group, at 15.73, indicated a notable impact of Word Search Puzzles on students' proficiency in vocabulary mastery.
5. The mean of control group was 11.17, means that Conventional Teaching Media affected the students ability in mastering vocabulary lower than using Word Search Puzzle.
6. The findings showed that students in experimental group, who used Word Search Puzzle had higher scores than control group, who used traditional teaching methods.
7. The experimental group demonstrated a high level of validity at 0.79.
8. The experimental group demonstrated a high level of reliability at 0.88.
9. Statistical analysis revealed that the T-test exceeded the T-table value ( $2,81 > 2$  at significant level 0,05,  $df = 66$ ), indicating a significant impact of Word Search Puzzle on students' vocabulary mastery of 7<sup>th</sup>-grade students at SMP Negeri 12 P. Siantar.
10. This research confirms that Word Search Puzzle positively influences the ability of 7<sup>th</sup>-grade students at SMP Negeri 12 P. Siantar to master vocabulary, surpassing the effectiveness of conventional teaching methods.

## Interpretation of Findings

In this research, the researchers aimed to investigate the impact of word search puzzles on students' vocabulary mastery. Utilizing word search puzzle as a visual aid in the educational process, it is believed that it can greatly enhance students' vocabulary skills. By incorporating word search puzzles into the curriculum, the learning environment becomes more engaging and dynamic. This use of media in education is rooted in the belief that it

can increase students' motivation and performance. Ultimately, word search puzzles have been shown to have a significant effect on students' ability to learn and retain vocabulary.

The researchers selected two classes, each comprised of 34 students. One class was designated as the experimental group, engaging in vocabulary mastery through the innovative use of media word search puzzle, while the control group pursued traditional methods of vocabulary acquisition without the use of word search puzzle.

After analysis of the data, it was determined that the average scores of the experimental group and control group were 15.73 and 11.17 respectively. The students in the experimental group demonstrated higher levels of validity (0.79) and reliability (0.88) compared to those in control group. Furthermore, the calculated T-test exceeded T-test ( $2.81 > 2$ ) at significance level of 0.05 with 66 degrees of freedom, indicating that the Word Search Puzzle had a significant impact on the vocabulary mastery of 7<sup>th</sup> grade students at SMP Negeri 12 P. Siantar.

The researchers have concluded that utilizing word search puzzle as a tool for teaching and learning significantly enhances students' proficiency in mastering vocabulary, as demonstrated by the research findings.

## Discussion

The researchers conducted a research at SMP Negeri 12 P. Siantar, gathering data from two distinct classes - one experimental and one control. The purpose was to examine the impact of Word Search Puzzle on vocabulary acquisition of 7<sup>th</sup> grade students at SMP Negeri 12 P. Siantar. Students were asked to complete a test based on the vocabulary material, with all students receiving the same learning material. The results of the test demonstrated that students showed greater improvement in vocabulary mastery when utilizing Word Search Puzzle compared to those who did not. This research concludes that Word Search Puzzle serves as an effective learning tool, facilitating the process of vocabulary mastery for students.

## CONCLUSION

The researchers found that : 1) Using Word Search Puzzles helped 7<sup>th</sup> grade students at SMP Negeri 12 P. Siantar learned vocabulary more effectively; 2) Students found the process more enjoyable when using Word Search Puzzle compared to traditional method. This was supported by the T-test result that showed significant difference in vocabulary mastery between experimental group and control group; 3) The  $T_{\text{test}}$  result of 2.81, compared to  $T_{\text{table}}$  value of 2 at significance level of 0.05 with df : 66, indicated that Word

Search Puzzle had a positive and significant impact on students' ability to master vocabulary.

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