

## THE EFFECTIVENESS OF USING CROSSWORD PUZZLE GAME TO INCREASE STUDENTS' VOCABULARY

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### ABSTRAK

*Tujuan dari penelitian ini adalah untuk mengetahui apakah Crossword Puzzle Game efektif untuk meningkatkan kosakata siswa kelas delapan di SMPN 1 Ampibabo atau tidak. Penelitian ini menggunakan desain eksperimen quasi, melibatkan dua kelompok yaitu kelompok eksperimen dan kelompok kontrol. Sampel dipilih dengan teknik cluster random sampling, yaitu 20 siswa kelas VIII A sebagai kelas eksperimen dan 20 siswa kelas VIII B sebagai kelas kontrol. Instrumen yang digunakan untuk mengumpulkan data adalah tes. Tes tersebut meliputi pre-test dan post-test, dengan nilai rata-rata 51.00 untuk kelas eksperimen, dan 57.80 untuk kelas kontrol pada pre-test. Sedangkan pada post-test, 72.60 untuk kelas eksperimen, dan 64.00 untuk kelas kontrol. Data hasil pengujian dianalisis secara statistik dengan menggunakan rumus uji-t. Hasil analisis menunjukkan bahwa nilai t-hitung (3.1) lebih tinggi dari t-tabel (2.025). Artinya hipotesis penelitian diterima. Dengan kata lain, penerapan Crossword Puzzle Game efektif untuk meningkatkan kosakata siswa kelas delapan di SMPN 1 Ampibabo. Implikasi dari temuan ini terhadap pengajaran kosakata adalah pemilihan metode pembelajaran yang tepat dapat mempengaruhi pencapaian prestasi belajar siswa dan guru diharapkan dapat menumbuhkan motivasi belajar pada siswa dengan berbagai cara sesuai dengan kemampuan guru dan menarik bagi siswa.*

**Kata Kunci;** Efektivitas; Meningkatkan; Kosakata; Permainan Teka Teki Silang

### ABSTRACT

*The objective of this research is to find out whether Crossword Puzzle Game is effective to increase vocabulary of the eighth-grade students at SMPN 1 Ampibabo or not. This research applied a quasi-experimental research design, involves two groups, they were experimental and control groups. The sample was selected by cluster random sampling technique, and it was 20 students of class VIII A as the experimental class and 20 students of class VIII B as the control class. The instrument used for collecting data was a test. The test included pre-test and post-test, with the mean score 51.00 for experimental class, and 57.80 for control class on pre-test. While on post-test, 72.60 for experimental class, and 64.00 for control class. The data results from the test were analyzed statistically by applying the t-test formula. The results of the analysis showed that the value of t-counted (3.1) is higher than t-table (2.025). It means that the research hypothesis was accepted. In other words, applying Crossword Puzzle Game is effective to increase vocabulary of the eighth-grade students at SMPN 1 Ampibabo. The implication of this finding to the teaching of vocabulary is that the selection of the right learning method can affect the achievement of students and teachers are expected to foster learning motivation in students in various ways according to the ability of the teacher and attractive to students.*

**Key Words;** Effectiveness, Increase, Vocabulary, Crossword Puzzle Game

## INTRODUCTION

Vocabulary is the basic language component that must be mastered by students to support their language skills. Richards and Renandya (2002) state that vocabulary is a core component that provides much of the foundation for learning speaking, listening, reading, and writing as well as proficiency in languages. It means that when students want to learn a new language, they need to have a lot of vocabulary. Without sufficient vocabulary, they will not communicate and express their feeling both in form of spoken and written effectively.

Teaching vocabulary at junior high school, just like at senior high school, is always integrated with the teaching of language skills and other micro-skills such as grammar and pronunciation. The ultimate purpose of teaching vocabulary is to enable students to communicate effectively using spoken and written language. To be specific, teaching vocabulary to grade eight students at junior high school as mentioned in the syllabus of Curriculum 2013 focuses on identifying words to express things, animals, buildings related to students' daily life. In other words, the students are expected to be able to identify content words and determine the meaning of the words.

Based on the researchers' preliminary research conducted at SMPN 1 Ampibabo, the researcher found that some students lacked vocabulary. They got difficulty in responding even to simple questions in verbal communication. They spent much time in writing activities, they consulted their English dictionary when they did not know the meaning or how to spell the word. Most students learned to increase vocabulary in a boring way, such as memorizing. As a result, students' vocabulary was not increased effectively.

There are many ways of teaching to increase students' vocabulary, such as using pictures, songs, and games. Using games in teaching vocabulary is one of the ways to help increase students' vocabulary. Games are beneficial in vocabulary learning because they enhance students' ability to memorize words, encourage students' interaction, improve their communicative skills and enhance students' motivation (Wilkins, 2015). Games also help a teacher create a fun environment in the teaching and learning process.

There is a lot of word game that can be played in learning vocabulary, such as picture games, magic tricks, pants games, card, and board games, crossword puzzle

games, etc. Crossword Puzzle Game is a word game that helps teachers in learning vocabulary. This game makes teaching and learning activities more interesting. Students will be more focused because they use logic to fill empty boxes; consequently, they will be motivated to join and participate in teaching and learning activities.

## METHOD

In this research, the researchers used a quasi-experimental research design by conducting pre-test, treatment, and post-test. It involved control and experimental groups. . The presentation of this research was designed by Donald Ary, Lucy Cheser Jacobs, Asghar Razavieh, Christine Sorensen, (2010).

Pretest-treatment-Pos-test			
Group	Pre-test	Independent Variable	Post-test
E	Y <sub>1</sub>	X	Y <sub>2</sub>
C	Y <sub>1</sub>	-	Y <sub>2</sub>

Where : E = Experimental Group  
 C = Control Group  
 Y<sub>1</sub> = Pre Test  
 Y<sub>2</sub> = Post Test  
 X = Treatment  
 - = No Treatment

A test was used to administer a pre-test before treatment as prior information of students' ability. Meanwhile, post-test was used to know the students' progress after the treatment. The population of this research was the grade eight students of SMP Negeri 1 Ampibabo. Based on the design of this research, the researcher chose a sample by applying the cluster random sampling technique. The sample was VIII A as an experimental group and VIII B as a control group. The research instrument of data collection was a test, pre-test, and post-test. Then, the researcher gave a score and calculated the result based on the test.

Distribution of the test				
No	Kind of test	Number of item	Score of each item	Total score
1	Multiple choice	10	1	10
2	Scrambling	10	1	10
3	Completion test	5	1	5
<b>Total</b>		<b>25</b>		<b>25</b>

## **FINDINGS AND DISCUSSION**

### **FINDINGS**

The pre-test was conducted on July 28<sup>th</sup>, 2021 in the experimental group and control group on the same days but the time was different. In collecting the data, the researchers used to test as the main instrument. The pre-test was applied before the treatment to measure students' vocabulary. The post-test was conducted after the treatment. The results of each test were compared to measure whether or not Crossword Puzzle Game is effective in increasing students vocabulary of the eighth-grade students of SMP Negeri 1 Ampibabo. The pre-test was given to the students before got treatment. The total standard score of the students of the experimental group in the pre-test was 1156 while the total standard score they gained in the post-test was 1452. Besides, to get the deviation scores, the researchers subtracted the students' standard scores in the post-test from the students' standard scores in the pre-test. Further, the researchers squared the deviation score of each student to get the square deviation. The results of students' score and deviation of Pre-Test and Post-Test of Experimental group and The results of students' score and deviation of Pre-Test and Post-Test of Control group shown in the table below

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**Students' Score and Deviation of Pre-Test and Post-Test of Experimental Groups**


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No	Name	Students' Score		DeviationD=(X2-X1)	Squared-Deviation D2
		Pre-test (X1)	Post-test (X2)		
1	ANS	64	80	16	256
2	WN	76	84	8	64
3	IKDS	32	52	20	400
4	AAA	40	76	36	1296
5	TA	64	72	8	64
6	KAD	76	84	8	64
7	HM	28	72	44	1936
8	SH	48	68	20	400
9	KRS	32	64	32	1024
10	AA	48	68	20	400
11	IG	48	72	24	576
12	VH	48	76	28	784
13	GP	52	88	36	1296
14	FR	24	56	32	1024
15	IMN	60	76	16	256
16	IGWD	36	56	20	400
17	AOT	68	84	16	256
18	NY	80	84	4	16
19	NR	64	76	12	144
20	AZ	32	64	32	1024
		Total		432	11680
		Mean		21.6	584

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**Students' Score and Deviation of Pre-Test and Post-Test of Control Group**


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No	Name	Students' Score		DeviationD=(X2-X1)	Squared-Deviation D2
		Pre-test (X1)	Post-test (X2)		
1	MR	24	72	48	2304
2	AA	44	76	32	1024
3	WP	68	88	20	400
4	FRIR	60	60	0	0
5	DZ	68	76	8	64
6	PA	52	40	-12	144
7	LY	64	60	-4	16
8	NKAA	60	36	-24	576
9	NMAY	68	60	-8	64
10	SFT	44	24	-20	400
11	TW	28	8	-20	400
12	MRA	80	80	0	0
13	IKAL	68	88	20	400
14	SHA	48	60	12	144
15	AS	64	68	4	16
16	RA	48	84	36	1296
17	AV	72	76	4	16
18	AM	28	44	16	256
19	GADW	88	88	0	0
20	CM	80	92	12	144
		Total		124	7664
		Mean		6.2	383.2

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After getting the total deviation and square deviation both of the experimental and control groups, it can be found that the mean score of deviation in the experimental group was 21.6 and the mean score of deviation in the control group was 6.5. Then, by getting the mean score of deviation, the researchers continued the calculation by computing the sum square deviation of both control and experimental group. It was found that the sum of square deviation in experimental group was 2.348.8 and the sum of square deviation in the control group was 6.895.2

After calculating the sum of squared deviation, the researchers analyzed the data by using the t-counted formula to find out a significant difference. The testing hypothesis was used to prove the research is accepted or rejected. The researchers revealed the criterion of the testing hypothesis was if t-counted is higher than t-table, the hypothesis is accepted, but if t-counted was lower than t-table the hypothesis is rejected. To attain t-table value and to find out the significant difference between the value of t-counted and t-table, the researchers applied the formula to count the degree of freedom of the t-table by applying the  $df (N-2 = 20-2=20)$  and 0.05 level of significance.

Furthermore, the value of the t-table was 2.025, while the t-counted was 3.1. As a result, it shows that the t-counted value was higher than the t-table value. It means that the research hypothesis was accepted. This research implies that the Crossword Puzzle Game affects the developing vocabulary of the grade eight students of SMP Negeri 1 Ampibabo.

## **DISCUSSION**

The objective of this research is to find out whether the use of Crossword Puzzle Game effectively increase students' vocabulary or not. The use of the Crossword Puzzle Game helped students enjoy and have fun with the learning process, the students seem more active and confident to learn and get new vocabulary by looking for words in Crossword Puzzle Game. The students more easily remember the words letter by letter than just gave them a list of words. The researchers found the problem that the students got difficulty understanding English due to they have lack of vocabulary. It was the reason for the researcher to conduct the research.

This research was conducted at SMPN 1 Ampibabo. In this research, the test was given twice; pre-test and post-test. The types of tests that the researchers used are

multiple-choice, scrambling, and completion tests. The total number of tests is 25. Multiple choices consisted of 10 numbers, scrambling consisted of 10 numbers, and completion test consisted of 5 numbers. Based on the data description of the data which was taken from 40 students of experimental and control class, the researcher could explain that there were slight differences between students using Crossword Puzzle Game and those who did not use Crossword Puzzle Game.

The researchers gave the treatment to experimental class for six meetings after conducted the pretest. The researcher provides different topics for each meeting. The researchers implemented this technique with several procedures. First, the researchers showed and explained the material which has related to the topic (noun, verb, and adjective). Second, the researchers introduced, explained, and demonstrated how the Crossword Puzzle works. Third, the researchers divided students into some groups, the researchers organized the students and explained what they should do in a group. Fourth, the researchers asked the students to answer and fill out the empty boxes with the clues that's there on the worksheet. Fifth, after they finished writing down their task, the researchers discussed the answer together with the students. The group that collected the most points would be the winner. Last, the researchers gave evaluation as an individual task. It was done to measure students' improvement in their vocabulary.

At the first, second, and fifth meetings, the students work collaboratively with their group. In one group there are five or six members, each of them has one or two minutes to fill in the question or guess the clues in the Crossword Puzzle. It means that from the ten questions or clues they have to divided or one member must fill in one or two questions in the game. So that each of them can work together and can also increase their vocabulary. However, in the third, fourth, and sixth meetings, the students fill out the Crossword Puzzle game individually. Then, the students become more active and interested in describing their ideas. The researchers also saw their contribution when they found some words that did not know by asking the researchers or seeing the meaning of the words in the dictionary. The researchers supervised the students during the discussion by walking around the classroom and supervising each student to help them when they got difficult to describe their ideas or to fill in the Crossword Puzzle game. Then, at the end of the meeting, their ability to answer the Crossword Puzzle game and learned English is better.

From all the meetings. The researchers found some advantages by using Crossword Puzzle game. First, the students can enjoy the lesson. Second, all of them can actively participate during the learning process. Third, Crossword Puzzle Game can motivate students to work independently or in groups. Besides, the researcher also found the obstacles in conducted this game. First, the researcher was difficult to manage all students because the class became noisy when they were in group discussions and it made other students less of focus. The way the researchers faced this obstacle was by leading the students to be more focused and keeping them on track in the process of learning. Second, there were some students still confused about the meaning of the word because they were lack vocabulary.

After doing the treatment, the researchers give the post-test. This test is used to measure the students' vocabulary after doing the treatments. The result of the post-test showed positive progress. Based on the data analysis, the researchers found that the score of t-counted 3.1 and t-table was 2.025. In other words, the t-counted was higher than the t-table. It simply means that the hypothesis is accepted. In short, Crossword Puzzle Game is effective to increase students' vocabulary.

After conducting this research, the researchers believe that the use of Crossword Puzzle game is effective to increase students' vocabulary. It is supported by Nurteteng and Nopitasari (2019) entitled "*The Use of Crossword Puzzle Towards the Students Vocabulary.*" The researchers used a pre-experimental research design. The sample of this research is the first grade of SMAN 5 Makassar which consists of 20 students. They analyzed the implementation of Crossword Puzzle game of students' understanding of vocabulary. The result of that study showed that the mean score in post-test is higher than the mean score in the pre-test. It can be said that using Crossword Puzzle game can increase the students' vocabulary.

## **CONCLUSION**

After conducting the treatment for six meetings and analyzing the data, the researchers concluded that Crossword Puzzle Game is effective to increase students' vocabulary of the eighth-grade students at SMPN 1 Ampibabo. It was proved by the result of the t-counted value (3,1) is higher than the t-table value (2.025). It was proved that the hypothesis is accepted in which there was the development of the students after giving the treatment

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