

THE USE OF CROSSWORD PUZZLE GAME TO IMPROVE STUDENTS' VOCABULARY MASTERY AT SMP NEGERI 2 TONDANO

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Abstract: This research was proved that the use of Crossword Puzzle game in teaching vocabulary can improve students' vocabulary or not. This research was used quantitative research through pre-experimental research with one group pre-test and post-test design. This research was conducted at 20 students on the 7th grade SMP Negeri 2 Tondano. According to the data analysis findings, seven students out of the 20 who participated in the pre-test scored 70, the greatest score possible, while three students scored 50, the lowest score possible. Following treatment, four kids received perfect scores of 100, while the fifth student received an unsatisfactory score of 70. According to Table 6, the mean score (X) for the pre-test (T1) was 62 and the standard deviation (S12) was 65, whereas the mean score (X) for the post-test (T2) was 85 and 5 with a standard deviation (S22) of 90. So, this research proved that the Crossword Puzzle game is an effective in teaching vocabulary in order to improve student's vocabulary skill.

Keywords: *Crossword puzzle, game, vocabulary, EFL*

INTRODUCTION

Language plays a crucial role in our everyday communication. Individuals speak with others or express their sentiments, by utilized language. According to Finocchiaro (1974), "Language is a system of arbitrary, vocal symbol, which permits all people in a given culture or other people who have learned the system of that culture, to communicate or interact" (page 3). It is clear from this quote that language plays a crucial role in everyday communication. English is regarded as the universal language

because it is one of the world's languages. It is one of the most widely spoken languages in the world and has an impact on every industry. It is viewed as significant for creating and applying science and innovation, as well concerning expanding the global relationship and collaboration. Thus, English language is critical to be learned.

English is viewed as significant subject to learn since many fields in human existence particularly training involves English as the language to convey and to share information and data. Indonesian students easily learn English in school, but they won't be motivated to learn if the classroom environment is uninspiring and boring. The primary objective of English language instruction is to enable students to communicate in English; however, a lack of vocabulary makes it difficult for students to learn English.

Currently, junior high school students in Indonesia have the opportunity to learn English as a subject, but some students already take private English classes. When it comes to learning English for the first time in junior high school, students with limited vocabulary may experience difficulties.

Vocabulary, according to Linse (2005), is an essential component of language acquisition. Students need to be familiar with the language's vocabulary, or a list of words and their meanings, in order to master English, but teachers cannot teach English according to what they want to teach. They are obligated to follow the government's instructions. *Kurikulum* 2013 serves as the foundation for the educational materials used in Indonesian schools. Students are expected to learn independently in this curriculum.

Accordingly, English is critical to be dominated, however for Indonesian understudies, it's anything but something simple to do, in light of the fact that there are numerous things that should be learned and one of them is jargon. Jargon is vital job in English. According to Napa (1991), "vocabulary is one of the components of language and that no language exists without words" (p.6), According to Rogahang, Liando, and Maru (2016), "Experts in second/foreign language teaching admit the crucial role that vocabulary plays." This multitude of specialists certainly concede that jargon ought to be the focal point of unknown dialect instructing in the event that learning an unknown dialect is to be successful"(p.2). According to the statement above, one important part

of the English teaching learning process is learning vocabulary. Students should be able to understand the words when learning English because it will be easier for them to understand what they have learned.

Although some teachers have utilized vocabulary-teaching strategies, it has frequently been observed that students learning English as a foreign language continue to face numerous challenges. It can be demonstrated in this instance that when the author explained the materials in English, students were perplexed and did not comprehend what the author was saying. In addition, when English was taught in class, the majority of students did not comprehend the text's context or the meaning of the vocabulary. After conducting an observation in a Tondano school, the author learned from English teachers that students' lack of interest and confidence made it difficult for them to learn and retain new vocabulary.

There are various kinds of approaches, strategies, activities and practice that can be utilized to show jargon, however educators ought to conclude what types would be best for their understudies and their conditions. Exactly as Maru stated. Teaching language involves more than just teaching methods, the teacher's role in the classroom, and the content they teach; it also includes aspects of the environment in which the lessons are being taught.

The researcher suggests one method as a solution for learning vocabulary on the basis of the aforementioned issues and reasons. Utilizing crossword puzzles is the appropriate teaching strategy for resolving the issue. The use of crossword puzzles can help students become more proficient in their vocabulary for a number of different reasons. Case (1994) claims that puzzles cause less stress. In specific riddle finding one response frequently assists the understudies with tracking down another response. Puzzles can help language learners focus on the language in a concentrated but non-stressful way because they provide enjoyment, satisfaction, reflection, and "play." Then again, the understudies will get joy from doing the riddle since puzzles have a few shapes, varieties and answers for their practices in the action.

RESEARCH METHOD

Pre-experimental quantitative research with a one-group pre- and post-test design was used in this study. A test given to students prior to treatment was called a "pre-test." Additionally, there was a post-treatment test. Two tests are offered: T1 is the pre-test and T2 is post-test. The treatment is symbolized by an X. Additionally, a post-test will be administered following treatment to assess students' mastery of vocabulary or progress. In this way, there are two tests: T1 is the pre-test and T2 is post-test. The treatment is denoted by the letter X. The design is presented in the following manner:

Pre-test	Treatment	Post-test
T1	X	T2

FINDINGS AND DISCUSSION

The purpose of this chapter is to explain how well-versed students were in vocabulary before and after playing the Crossword Puzzle Game. Twenty students from SMPN 2 Tondano's second grade were the focus of this quantitative study, which used a one-group pre-test and post-test design. The author used the Crossword Puzzle game to gather data. It included multiple-choice, true/false, and the actual crossword puzzle game. In each blank space, they are expected to write or guess the correct response.

The steps the researcher takes to analyze the data are as follows:

Table 1. Table 2 contains the data for students in T1 (pre-test) and T2 (post-test). Table 3 shows the frequency distribution matrix for T1. T2 table 4 frequency distribution matrix Pre-test computation of the mean (\bar{X}) in Table 5. After the test, the mean (\bar{X}) is calculated in Table 6. The average pre- and post-test score.

1. Figure Figure 2 depicts the frequency polygon of the pre-test (T1). Recurrence polygon of the post-test (T2)

Table 1: The data of students in (pre-test) T1 and (post-test) T2

Number of the students	pre-test (T1)	Post-test (T2)
1	50	70
2	50	80
3	60	80
4	60	70
5	70	100
6	60	90
7	60	80
8	60	80
9	70	90
10	70	90
11	60	80
12	50	80
13	60	90
14	70	100
15	60	70
16	60	80
17	70	100
18	60	90
19	70	100
20	70	90

There were 20 students that took the examinations, and according to the data, each one of them could increase their score. In the pre-test and post-test, numerous pupils received different results.

Table 2. Pre-test (T1) frequency distribution matrix

Scores	Tally	Frequency	Freq-%	Cumulative proportion	Cumulative presentation
70	<i>IIII II</i>	7	70%	20	70
60	<i>IIII IIII</i>	10	100%	13	100
50	<i>III</i>	3	30%	3	30

Table 2. Showed that there were 20 students took the pre-test part. There were seven student got seventy (70) as the highest score while ten students got score sixty (60), then the lowest score fifty (50) achieved by three students.

Table 3. Frequency Distribution Matrix of Post-Test

Scores	Tally	Frequency	Freq-%	Cumulative proportion	Cumulative presentation
100	<i>IIII</i>	4	40%	20	40
90	<i>IIII I</i>	6	60%	16	60
80	<i>IIII II</i>	7	70%	10	70
70	<i>III</i>	3	30%	3	30

Table 3. revealed that 20 pupils took the post-test, and their scores improved. The top four students each received a score of 100, followed by six students who received 90, seven students who received 80, and three students who received 70.

Table 4: Pre-test mean (X) computation

N	Score (X _i)
1	50
2	50
3	60
4	60
5	70
6	60
7	60
8	60
9	70
10	70
11	60
12	50
13	60
14	70
15	60
16	60
17	70
18	60
19	70
20	70
Total	1240

The above computation's average result is:

$$a) n = 20$$

$$\bar{X} = \frac{\sum X}{n}$$

$$= \frac{1240}{20} = 62$$

According to the computation of the pre-test's mean score, which is 62

$$a) \text{ Standard Deviation } (S_1) = \sqrt{\frac{\sum (X_i - \bar{X}_i)^2}{n - 1}}$$

$$= \sqrt{\frac{1240}{20-1}}$$

$$\begin{aligned}
&= \sqrt{\frac{1240}{19}} \\
&= \sqrt{65,26} \\
&= 65
\end{aligned}$$

c.) $S_I^2 = 65$

Table 5. Computing the post-test mean (\bar{X})

N	Score (X_1)
1	70
2	80
3	80
4	70
5	100
6	90
7	80
8	80
9	90
10	90
11	80
12	80
13	90
14	100
15	70
16	80
17	100
18	90
19	100
20	90
Total	1710

The above computation's average result is:

a) $n = 20$

$$\begin{aligned}
\bar{X} &= \frac{\sum X}{n} \\
&= \frac{1710}{20} \\
&= 85,5
\end{aligned}$$

According to the computation based on the post-test's mean score, the result is 85,5.

b.) Standard Deviation (S_2) = $\sqrt{\frac{\sum (X_2 - \bar{X}_2)^2}{n_2 - 1}}$

$$= \sqrt{\frac{1710}{19-1}}$$

$$= \sqrt{\frac{1710}{19}}$$

$$= \sqrt{90}$$

$$= 90$$

c.) $S_2^2 = 90$

Table 6: The mean score of pre-test and post-test.

	Pre-test	Post-test
Mean score (\bar{X})	62	85,5

In this study, it was anticipated that the post-test would yield a higher score than the pre-test. Pre-test was utilized, and it was applied based on the information from tables 4 and 5, in order to determine whether there was a substantial difference in achievement between these two tests. It can be formulated as follows.

Where:

$$\bar{T}_1 = 62 \qquad n_1 = 20 \qquad S_1^2 = 65$$

$$\bar{T}_2 = 85,5 \qquad n_2 = 20 \qquad S_2^2 = 90$$

$$t_{x_1-x_2}^{obs} = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left[\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2} \right] \left[\frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

$$\begin{aligned}
&= \frac{90-65}{\sqrt{\left[\frac{(20-1)90+(20-1)65}{19+19-2}\right]\left[\frac{1}{19}+\frac{1}{19}\right]}} \\
&= \frac{25}{\sqrt{\left[\frac{(19)90+(19)65}{36}\right]\left[\frac{2}{38}\right]}} \\
&= \frac{25}{\sqrt{\left[\frac{1710+1235}{36}\right][0.05]}} \\
&= \frac{25}{\sqrt{\left[\frac{2945}{36}\right][0.05]}} \\
&= \frac{25}{\sqrt{[81,80][0.05]}} \\
&= \frac{25}{\sqrt{16,72}} \\
&= \frac{25}{4,08} \\
&= 6,12
\end{aligned}$$

Figure 1: The Frequency polygons of the pre-test (T₁)

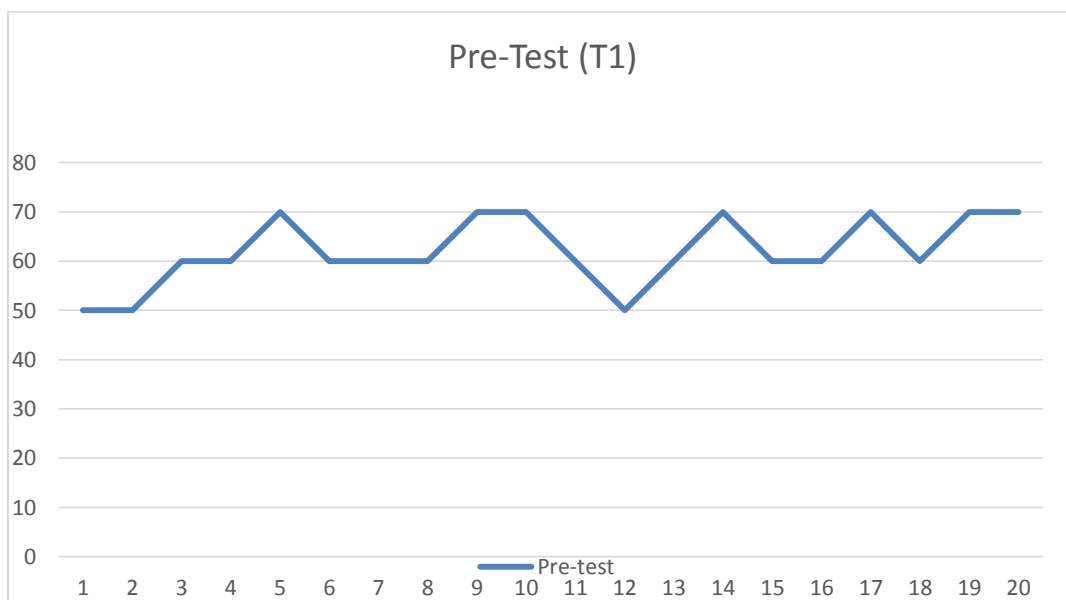


Figure 2: The Frequency polygons of the post-test (T₂)

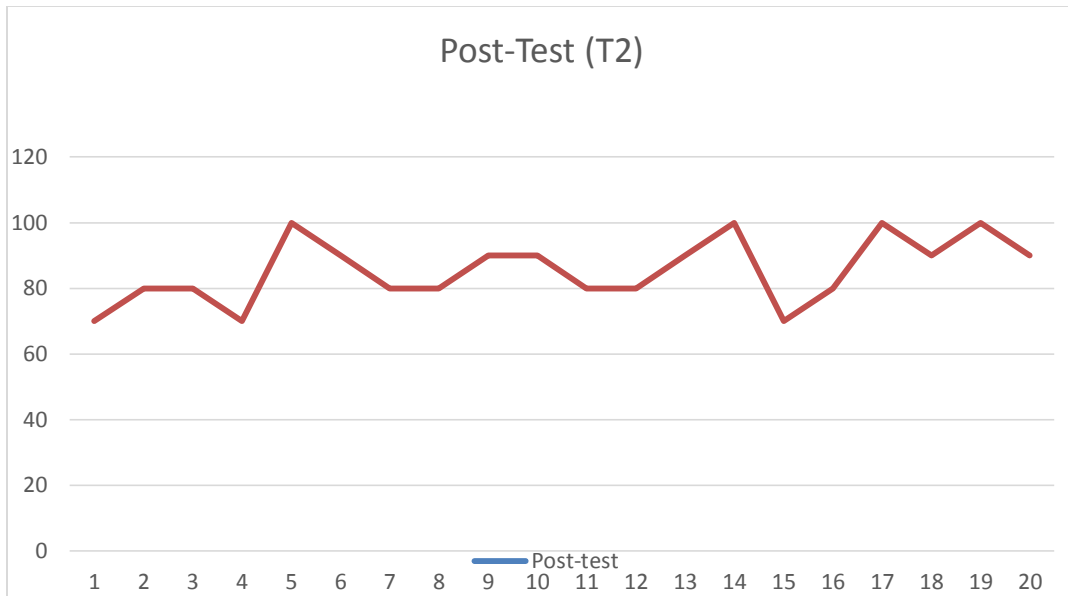
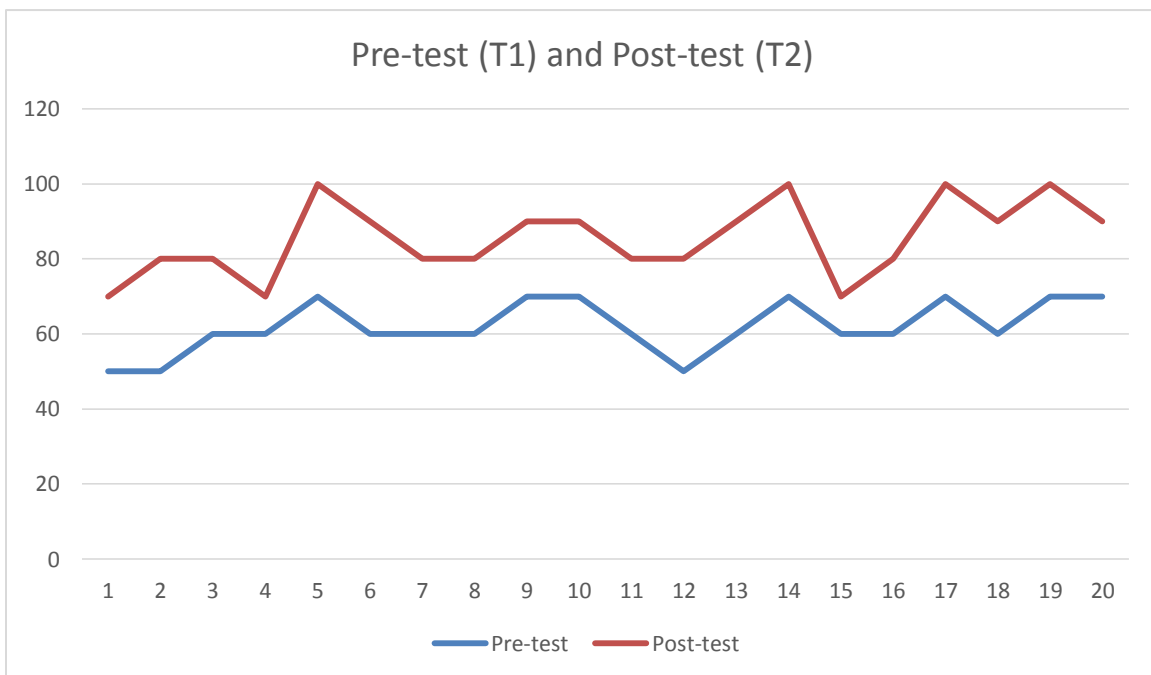


Figure 3: The frequency polygons of the pre-test T1 and post-test T2



DISCUSSION

The sample class's various post-test and pre-test scores are shown in tables 1, 2, and 3, respectively. In this instance, the pupils perform better on the follow-up test. It indicates that the way they have been treated in the past has an impact on their linguistic skills. The inclusion of the crossword puzzle game in the program allows pupils to develop their vocabulary skills.

The analysis of the data revealed that out of the 20 students who participated in the pre-test, seven students received scores of 70 or higher, while three students received scores of 50 or lower. After treatment four students acquired 100 as perfect scores and student acquired 70 as imperfect score. Table 6 showed that the mean score (\bar{X}) of pre-test (T_1) was 62 and Standard Deviation ($S_1^2 = 65$) and the mean score (\bar{X}) of post-test (T_2) was 85, 5 with Standard Deviation ($S_2^2 = 90$) in post-test. In this study the data of the pre-test were compared to the data of the post-test therefore it should be said that the result of the post-test was better than the pre-test.

The result of pre-test showed that the students' vocabulary achievement was low before applying Crossword Puzzle game because they did not really understand the meaning of vocabulary. So, this research proved that the Crossword Puzzle game is an effective in teaching vocabulary in order to improve student's vocabulary skill.

CONCLUSION

Vocabulary is one of the skills that is represented in ELT, or English Language Teaching, as the other productive talent after speaking and writing. According to the previous statement, it is acknowledged that vocabulary development is crucial for students studying English, particularly in terms of vocabulary achievement. After analyzed the data based on the result and findings, it could be concluded that the use of Crossword Puzzle game is effective to improve students' vocabulary achievement, through this technique the students' are able to understand and comprehend the mechanism of meaning and how to spell each word in a good way and they are able to utilize this technique as the part of their improvement in learning English especially enhance their vocabulary skill by vocabulary learning itself. Thus, Crossword Puzzle

game given prove that vocabulary learning is interest to learn by the utilization of that technique for students' involvement in classroom activity and English achievement in vocabulary ability.

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