

The use of crossword puzzle game to improve students' vocabulary mastery

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ABSTRACT

The objectives of this research were to find out whether teaching by using crossword puzzle could give improvement toward students' vocabulary mastery and to find out the students responses after teaching vocabulary by using crossword puzzle. It was conducted at the first grade of SMPN 3 Natar, in academic year 2021/2022. The 7B Class which consists of 30 students were chosen as sample of this research. The study was quantitative approach with the design of *one group pre-test and post-test design*. The instruments used in this research were vocabulary test that consisted pre-test and post-test and questionnaire. The data were analyzed by using SPSS 22.0. The result of this research showed that crossword puzzle could improve students' vocabulary mastery. It could be seen from the result of t-value (11.199) was higher than t-table (2.045) with the value of significant level $0.00 < 0.05$ which indicates that H_1 is accepted and H_0 is rejected. Moreover, the mean score of pre-test was (75.51) and the mean score of post-test was (84.43) it means that the students improved about (8.91) with the N-gain was (0.38). In addition, the result of students' response showed that students gave positive response after the implementation of crossword puzzle game in teaching English. It could be seen from the result of the total score of the questionnaire of which the students mostly choose strongly agree and agree statements.

Keyword: *crossword puzzle, vocabulary, response.*

I. INTRODUCTION

Language is very important for human life especially in learning English. It is used by people to communicate each other. Many experts say that there are three language components that we know and must be mastered by the students or learners they are grammar, pronunciation, and vocabulary. Vocabulary is one of the language components in learning English because it is important to make students speak English well. According to Anwar and Efransyah (2018), vocabulary is one of the important aspect in learning language because vocabularies carry meaning which are utilized in communication. Meanwhile, Freeman (2000:29) defines that "Vocabulary is the emphasized over grammar although work on all four skills (reading, writing, speaking, and listening) occurs from the start, oral communication is seen a basic".

From the statement above, it can be concluded that vocabulary is an essential part of language development since vocabularies hold meaning and are used in communication.

As an English teacher, it's sometimes difficult to teach vocabulary in the class. Students have problems in vocabulary mastery because of some problems. The problems are that many of them are still confused about the meaning or to memorize vocabulary and even they do not have enough vocabulary in making a sentence. There are a lot of teaching methodology and teaching techniques which can be used but not all of them are helpful for the students. One of the technique in teaching vocabulary is using crossword puzzle game. According to Webster (1990:310), crossword puzzle is a puzzle on which words are filled into a pattern of numbered squares to answer correspondingly numbered clues and in such away that the words read across and down. This problem also occurred in SMPN 3 Natar. Based on the researcher observation and interview with the English teacher in SMPN 3 Natar. One of the problem in English is the

students' ability of vocabulary mastery. Especially students' ability to memorize vocabulary, It is caused by the lack of students' vocabulary mastery. Besides that, the researcher found that the ability of students to comprehend the meaning of vocabulary is low. And also, the students have difficulties to use vocabulary in sentences. It makes the students feel lazy to learn English well. In this case, the researcher has an idea to improve their ability vocabulary mastery by using crossword puzzle as the instructional teaching media. According to Sadiyah, Septiani, Kareviati, (2019), crossword puzzle game is effective ways to improve students' vocabulary mastery. The following specific research questions guided the study:

1. Is there any significant improvement in students' vocabulary mastery after using crossword puzzle game in teaching?
2. What are students' responses in learning vocabulary through crossword puzzle game?

II. METHOD

The objectives of this research were to find out the improvement in students' vocabulary mastery after practicing using crossword puzzle. The researcher used the one-group pretest-posttest design in which there was one group as the sample. The pre-test was provided to measure the students' mastery before the treatment, and the post-test was given to measure how far the students' performance was after they completed the treatment. The design for the first research question as illustrated follows

TI X T2

Where:

TI : Pre-test

T2 : Post-test

X : The treatment (The implementation of crossword puzzle game)

The second research question will investigate the students' response the implementation of crossword puzzle game which will be analyzed through the questionnaire. It will use a quantitative approach and the design was *One-Shot Case Study*. The research design is illustrated as follows:

X T

Where:

X: belongs to the implementation of Crossword Puzzle game

T: belongs to questionnaire

(Setiyadi, 2018)

Participant

The participants of this study were 30 students of SMPN 3 Natar.

Instrument

The instrument of this research were vocabulary test and questionnaire.

Data Analysis

In order to get the complete result, the researcher analyzed the data through some steps as follows:

1. Scoring pretest and posttest.
2. To find out the mean score.
3. To see the significant difference in the students' vocabulary mastery, the researcher used the Paired Sample T-Test in SPSS.

4. analyzing the result of the questionnaire and grading the items.
5. The researcher was analyzed the result of the students' pretest, posttest, and response.

III. RESULTS AND DISCUSSION

Results

The pre-test and post-test were administered in the experimental class to find out whether there is an improvement in students' vocabulary mastery after teaching crossword puzzle game. Both pre-test and post-test was given in the form of multiple choice with time allocation was 80 minutes. The pretest was conducted in order to measure students' vocabulary mastery before the treatment was given. Meanwhile, the post-test was conducted in order to find out the students' improvement after being taught crossword puzzle game. The data of pretest and post-test can be known from the enhancement of average by looking at standard N-gain. Furthermore, to know the gain of students' pre-test and post-test scores, it can be seen in the following table:

Table 1. Improvement from the Pre-Test and Post-test Score

	Pretest	Post-test	Gain	N-Gain	Categories
Total	2238	2499	261	0,38	Moderate
Mean	75,583	84,29	8,70333		

From the table above, there was an improvement from the students' pre-test score to post-test score and the categories of improvement was moderate. It implied that crossword puzzle game could improve the students' vocabulary mastery.

To know the result of hypothesis, the researcher used Paired-Sample T-Test and the result can be seen as follows:

Table 3. The Result of Hypothesis Testing

		Paired Samples Test							
		Paired Differences							
		95% Confidence Interval of the Difference							
		Std. Mean	Std. Deviation	Std. Error Mean	Lower	Upper	T	df	Sig. (2-tailed)
Pair 1	Pretest – Posttest	8.917	4.361	.796	7.288	10.545	11.199	29	.000

Based on the table 4.6 above, the value of 2-tailed significant was 0.000 which is lower than 0.05. from the value showed above, it can be explained that H_1 was accepted and H_0 was rejected which means there is significant improvement instudents' vocabulary mastery from pretest and posttest result after giving the treatment. Moreover, the t-value of the data was 11.199 compared with t-table which is 2.0452, it can be said that t-value > t-table which means there was an increase of students' vocabulary mastery.

In this research, the researcher also used a questionnaire to answer how students' response is after using of crossword puzzle game technique. In order to answer the research question the researcher administered questionnaire which consist of 15 items.

The researcher employed translated questionnaire in Bahasa Indonesia to avoid misunderstanding. This research used close-ended questionnaire. There are four components of response to bring up students' responses such as: The students' feel after the implementation of the technique, The effectiveness of the technique, The benefits of the technique related to the vocabulary aspect, The improvement of students' vocabulary mastery. Furthermore, the data of students' response is showed in the table below:

Table 4. Students' Responses Toward Crossword Puzzle Game

No.	Questionnaire Statements	Distribution Score			
		Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Total Score		1	71	215	160

Based on the table of the result questionnaire above, it was showed that most of students gave positive responses toward the learning activity. It could be seen from the total score of where students mostly agree with the applying of Crossword Puzzle game.

There was only one of the students choose strongly disagree, while 71 score who chose disagree, 215 score who chose agree, and 160 students who chose strongly agree.

Discussions

The results of the research showed that the students' vocabulary mastery improved after being taught by crossword puzzle game at the first grade of SMPN 3 Natar. From the results presented before, it can be seen that the score of the students' post-test was higher than the score of pre-test. This research was used only one class randomly as a sample. The researcher gave the students pretest and post-test to know whether crossword puzzle game could increase students' vocabulary mastery, the research was started by conducting pre-test. The result can be seen from the students mean score of pre-test was 75.51 and the mean score of post-test was 84.43, so the mean score improved 8.91 points. It means that crossword puzzle game had positive effects on students' vocabulary mastery. The result of this research is in line with Fachrozi, *et al.* (2021) who has conducted a research to see the use of crossword puzzle technique in teaching vocabulary. They states that crossword puzzle is an effective ways to improve students' vocabulary mastery. In addition, according to Melansari, *et al.* (2019), there was an effective to improve students' vocabulary mastery by using crossword puzzle game. It can be seen from the result means score of experimental and the control class.

Based on the result of the data analysis of the questionnaire, it was found that there was 18 students out of 30 students who agree that they were enthusiasm in learning vocabulary by using crossword puzzle; 25 students out of 30 students who agree that by using crossword puzzle could made them motivated in learning vocabulary and 18 students out of 30 students who strongly agree that they were excited in learning vocabulary by using crossword puzzle technique. It was summed up that the implementation of the crossword puzzle in teaching vocabularies was very good for them. Linked to the answer of the students, it showed that the crossword puzzle gave some advantages for them. First, the crossword puzzle is interesing. Second, the learning atmosphere became more active and enthusiastic. Third, a crossword puzzle can motivate them to learn vocabulary in English. The last, the crossword puzzle

facilitates them to be brave in exploring their ability in English. This was supported the statement of Ainiyah (2019) and Meliyani & Kareviati (2021), there was improvement in students' motivation by using crossword puzzle made the students became more active, enjoyable, and enthusiastic in learning vocabulary. In the final analysis, the researcher concluded that the crossword puzzle game could improve the students' vocabulary achievement, it means that crossword puzzle technique is good to be used in teaching vocabulary and crossword puzzle game also gave positive response after the use of crossword puzzle in teaching learning vocabulary.

IV. CONCLUSION AND SUGGESTION

Conclusion

The objectives of this research were to find out whether the use of crossword puzzle game can improve students' vocabulary mastery and to know students' response of crossword puzzle. The conclusion can be shown as follows:

Based on the result of implementation of crossword puzzle game, there was a significant improvement in the students' vocabulary mastery after being taught using crossword puzzle. Furthermore, the use of crossword puzzle is effective to be used in learning activities. It is proved by statistical result in the previous chapter which shows that t-value (11.199) is higher than t-table (2.045) and significant value (0.00) which is lower than 0.05.

In addition, The students' response after the implementation of the crossword puzzle in teaching vocabularies is positive. It can be seen from the result of the questionnaire after the treatment process and the data analysis. Based on the result of the questionnaire, the students were enthusiasm in learning process by using crossword puzzle game.

Suggestions

From the conclusion above, the researcher proposes some suggestions for English teachers and other researchers as follows.

First suggestion for English teacher,

1. The researcher suggests to implement crossword puzzle for writing and reading section.
2. When a teacher notices that their students are getting bored in class, they may use crossword game as an alternative method of teaching English.

Second suggestion for further researcher,

1. This research was conducted in junior high school level. Besides, the researcher suggests other researcher to apply crossword puzzle in different level of school or different skill.
2. This research was aimed to find out the students' improvement in vocabulary achievement. Thus, further researcher can try to find out the different language abilities or components (writing and reading).

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