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

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ABSTRACT

Vocabulary is one of the essential language skills in learning English. A game can be used to improve students' vocabulary mastery in the process of teaching-learning. It can create fun and interesting learning activity for students in learning English. Thus, this is attempted to find out whether crossword puzzle game can improve the students' vocabulary mastery. The subject of this research is the elementary school students of SD N Danau Sadar. The researcher uses classroom action research as a method in this research. The data is collected with the vocabulary test, field notes, and interview guidelines as an instrument. The results show that using crosswords puzzle games in English teaching and learning improves the students' vocabulary mastery.

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1. Introduction

Nowadays, English is the most spoken language in the world. Every day, billions of people use English at work and in social life. English is universal language because almost people around the world use it to communicate each other with difference mother tongue. Learning English is important in this era to get much information around the world because everything is in English such as technology, business and etc (Younger, 1991; Ur, 2012; Susanto, 2017). English is useful in this era because many professions are looking for workers who are fluent in English. Someone who speaks English well may find it simpler to communicate with strangers. They may even be able obtain a high position in a multinational corporation (Whisenand et.al., 2010; Sari & Aminatun, 2021). In this era, there will be many developments in Indonesia. English as an international language is always considered part of the school curriculum as it is considered so important to the development of science, business and technology (Richards, 2001; Gultom, 2016; Orawiwatnakul, 2013). Job seekers must to be able to speak English in order to keep up in this globalization era. It is making English becomes the foreign language that has crucial in Indonesia that is taught as a subject for students from elementary school, junior high school, senior high school up to university level. Although at elementary school they only taught basic of English, especially on the vocabulary mastery. Therefore, introducing English as soon as possible is necessary.

Language skills such as reading, writing, listening, and speaking are needed for students to learn English. To mastering reading, writing, speaking, and listening people must be able mastery the elements of language such as grammar, pronunciation, and vocabulary (Khoirina & Rini, 2021). One

of the five key elements that are need to successfully teach kids is vocabulary. It will be simpler to learn language skills up to English if element language is mastered, particularly vocabulary (Sedita, 2005; Diamond & Gutlohn, 2009; Lestari & Yulia, 2018). Thornbury said they all have important roles to teach, but vocabulary helps successful students learn English much, because without grammar you can convey very little thing, without vocabulary you cannot teach or convey anything (Nagy, 1988; Puspita et al., 2017).

Vocabulary is a set of words for students to speak, listen, write and read. According to (Anwar & Efransyah, 2018) students will find in difficult to communicate with others if they have less vocabulary, even though they have good grammar (Morley, 2000). For example, when someone say something in English but the student does not know the meaning, so they will be confused. Instead of the student can say something in English, the student even cannot understand what people say in English. Learning English language will be challenging if learners do not have adequate vocabulary (Felicity et.al., 2000; Laufer & Goldstein, 2004; Ajisoko, 2020).

Most elementary school students have great difficulty in learning English, especially mastering vocabulary. Even after studying English since elementary school, the kids' proficiency is still regarded as low. It is supported by findings, for example, daily tests at schools, or students' scores on national exams are still inadequate (Suryasa et al., 2017; Selly & Juliana, 2020). There are internal and external factors contribute to the students' low level of vocabulary mastery (Guskey, & Anderman, 2013). Internal factors that can influence a student's vocabulary include motivation, self-confidence, and enthusiasm in learning English. Strategy, technique, and media are examples of external factors that can affect students' vocabulary.

The researcher should implement a media that can increase students' vocabulary mastery. To teach vocabulary, a variety of media can be used, including pictures, videos, and games. Researcher tries to apply crossword puzzle in teaching English in SD Negeri Danau Sadar. The researcher offers crossword puzzle media as a solution of the problem in learning English in SD Negeri Danau Sadar. Crossword puzzles is a famous game in pastime; no one knows how many people play them, but there are about 50 million or more in the United State (Nickerson, 2011).

Crossword puzzle is a word game where we have to fill in the blank spaces with letters that form a word based on the clues we get. Crossword puzzle can be used to improve vocabulary mastery and can attract the interest and participation of student (Ismawati & Nanda, 2019; Nopitasari, & Makassar, 2019; Kashor, 2017; Muzdalifah, 2018). By using crossword puzzle, the researcher can sharpen the memories of students. Crossword puzzle is also good to develop analytical skills and stimulates critical thinking of students. (Dzulfikri, 2016; Rizki, Rukmini, & Sutopo, 2013) said students could memorize a large amount of vocabulary after interacting with crossword puzzles, which could affect the development of a larger vocabulary.

All the above explanations inspire the researcher to conduct classroom action research by using the crossword puzzle game to improve vocabulary mastery of fourth graders of SD Negeri Danau Sadar. The researcher wants to conduct research entitled "The Use of Crossword Puzzle Game to Improve Students' Vocabulary Mastery".

2. Method

The design of the research is classroom action research. The research setting is at SD Negeri Danau Sadar, kec. Dusun Selatan, kab. Barito Selatan, Prov. Kalimantan Tengah. The researcher prefers to this school because of some reasons. The researcher found some problems/weeknesses in vocabulary mastery when doing observation and interview with the students. The subjects of the research are the fourth grade students of SD Negeri Danau Sadar consisting of 15 students. There are 6 males and 9 females in the Academic year 2021/2022.

Both qualitative and quantitative data are used in this study. Interview transcripts will include observations data from the field notes and interviews, providing qualitative data. The assessment of students' vocabulary mastery that will be got from students' pre-test and post-test scores using a vocabulary assessment rubric will provide quantitative data.

This study used qualitative and quantitative data in this research. Through the steps outlined by Miles and Huberman (1994), the researcher used qualitative data analysis. Whereas, quantitative

data obtained through assessing students' vocabulary mastery were analyzed using Microsoft Excel. Microsoft Excel was used to search the average scores. The analysis performed for pre-test and post-test scores. Therefore, the result was used to look the improvement of the students' vocabulary mastery.

3. Findings and Discussion

The researcher's goal in this study is to provide the following descriptions of the pre-cycle, cycle I, and cycle II results

In pre-cycle, researcher managed vocabulary to confirm ability of students before applying crossword puzzle games. As a result, the students' vocabulary knowledge was still very poor, they were still confused about what the vocabulary was, and most students could not know vocabulary.

Table 1. Result of Pre-Test

NO.	Respondents	Pre-test Score
1.	EM	19,8
2.	D	13,2
3.	NAP	33
4.	NA	13,2
5.	KPS	33
6.	JEA	52,8
7.	LF	13,2
8.	AM	19,8
9.	R	33
10.	AR	13,2
11.	MD	26,4
12.	Y	33
13.	DS	26,4
14.	FKJ	13,2
15.	S	33
	Total	376,2
	Mean	25,08

Following the pre-test, the students' total score was 376.2, with an average score of 25.08. The students' vocabulary was lacking, as seen by the quantitative statistics above.

The qualitative information collected through interviews can be used to support quantitative data. The students who scored low and high on the pre-test were interviewed prior to the researcher utilizing this procedure. The interview also revealed that the students still had a limited command of vocabulary. Researcher interviewed the students. According to the following information: "*Saya kurang suka apabila belajar bahasa Inggris karena bahasa inggris sangat sulit mengingat kata-kata nya*.". It informed that he found English vocabulary to be challenging, which diminished his enthusiasm for learning new words. "*Bahasa inggris sangat sulit, saya juga susah untuk mengingat kosakata nya*.". From the second students' information above, he got difficult to memorize vocabulary. "*Saya kesulitan dalam menyebutkan kosakata kak*". From the third student, she got difficulty in pronounce the vocabulary.

From the interview above, it is clear that the vocabulary of students was not great yet. Due to the fact that when the researcher interviewed with certain students, they were not enthusiastic about learning English and students were not used to learning English. Hence, it made them difficult to remember and say the vocabulary. It might be said that students' vocabulary skills were lacking. Hence, the researcher wanted to improve the students' vocabulary ability by applying crossword puzzle.

In cycle I, it shows the average learning of students and students' activities in learning.

Table 2. Comparisons between Pre-Test & Post-Test

NO.	Respondents	Pre-test Score	Post-test I Score
1.	EM	19,8	13,2
2.	D	13,2	19,8
3.	NAP	33	26,4
4.	NA	13,2	26,4
5.	KPS	33	19,8
6.	JEA	52,8	66
7.	LF	13,2	19,8
8.	AM	19,8	19,8
9.	R	33	26,4
10.	AR	13,2	33
11.	MD	26,4	19,8
12.	Y	33	46,2
13.	DS	26,4	26,4
14.	FKJ	13,2	33
15.	S	33	59,4
	Total	376,2	475,2
	Mean	25,08	31,68

Based on the table above, it shown that the result of pre-test, students' total score was 376.2 and average score of students was 25.08. Then result of post-test, total score of students was 475.2 and mean score of students was 31.68. It informs that there is improvement between pre test and post test mean, where post test is greater than pre test. It indicates that crossword puzzle has impact on the students' vocabulary improvement.

Based on field note, some students struggled to understanding. And some students were dissatisfied since they had to study. Some students also were apparently disinterested with researchers' explanation. As a result, the researcher must procced to cycle II. Hopefully the students' score could better than cycle I and the students.

In cycle II, it shows the average learning of students and students' activities in learning.

Table 3. Comparisons between Pre-test, Post-Test I, and Post-Test II

NO.	Respondents	Pre-test Score	Post-test I Score	Post-test II Score
1.	EM	19,8	13,2	26,4
2.	D	13,2	19,8	26,4
3.	NAP	33	26,4	52,8
4.	NA	13,2	26,4	59,4
5.	KPS	33	19,8	46,2
6.	JEA	52,8	66	85,8
7.	LF	13,2	19,8	26,4
8.	AM	19,8	19,8	26,4
9.	R	33	26,4	52,8
10.	AR	13,2	33	52,8
11.	MD	26,4	19,8	39,6
12.	Y	33	46,2	66
13.	DS	26,4	26,4	46,2
14.	FKJ	13,2	33	66
15.	S	33	59,4	72,6
	Total	376,2	475,2	745.8
	Mean	25,08	31,68	49.72

From that table, it can be seen that the researcher got an overall score was 376.2, and mean score was 25.08 on the Pre-Test. The results of post-test I showed that the mean score was 31.68 and that the overall average of the students was 475.2. As a result of post-test II, students received a total score of 745.8 and a mean score of 49.72.

From explanation above, it informs that there is improvement between pre-test, post-test I, and post-test II mean, where post test II is greater than pre-test and post-test II. It suggests that crossword puzzles have an effect on students' vocabulary.

The qualitative information collected through interviews can be used to support quantitative data. The researcher conducted interviews with students who scored well and poorly on the pre-test, post-test I, and post-test II. According to the following information:

> "*Saya jadi suka belajar bahasa inggris menggunakan permainan ini, karena ini mudah paham dan tidak membosankan*". It informs that students felt more easily to understand words. He got more motived in learning English. It was supported by another student "*Menurut saya iya kak, kosakata saya meningkat, karena saya dapat mengingat beberapa vocabulary yang sebelumnya saya tidak ketahui*". She stated her vocabulary increase when learning using crossword puzzle game.

From the result qualitative above, students' vocabulary ability has grown and they are capable of achieving their goals. Most of the correspondents felt that the implementation of Crossword puzzle game is effective for English learning, especially in students' vocabulary.

4. Conclusion

The researcher draws the following conclusions after studying the data:

Result of preliminary research informed that students' vocabulary ability was poor. As a result of the pre-test, the overall student score was 367,2, and the mean score was 25,08. It implies that the students have lack vocabulary. As a result, the researcher wants to use crossword puzzles to help students' vocabulary.

In cycle I, Students took part in vocabulary training but students still struggle to translate the text. It was evident from the field note's outcome. And According to the quantitative data, vocabulary learning has improved, although it is still not very good. The results of the post-test I show students' total score was 475,2 and mean score of students was 31,68. Mean score of students was increased.

In cycle II, students were excited and active in learning vocabulary. The findings of the interview and field note revealed that. Result of post-test II showed students' total score was 745.8 and mean score of students was 49,72. Based on the hypothesis and indicator of success that if the students' score in the post-test is higher than pre-test, it can be said that the treatment of this study was successful. It means that crossword puzzle game could improve the students' vocabulary mastery and it was categorized successful.

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