THE EFFECT OF MNEMONIC TECHNIQUE WITH CROSSWORD PUZZLE MEDIA IN TEACHING VOCABULARY: Pre-Experimental Research

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Article Info	Abstract
	The thesis aimed at finding out the improvement of the students' vocabulary at the 10th grade of SMA Negeri 11 Watampone in 2017/2018 Academic year in term of Mnemonic Technique with Crossword Puzzle Media. The researcher findings indicated that Mnemonic Technique with Crossword Puzzle Media effective could improve students' vocabulary mastery. The result of the data indicated that, there was difference between students' pre-test and post-test. The mean score of post-test (86, 11) was greater than the mean score of pre-test (69, 25). From t-test, the researcher found that, the value of t-test (7.082) was greater than t-table (2.056) at the level of significance 0. 05 with degree of freedom (df) = 27.result shows that t-test value for the final score of students' vocabulary was (7.082 > 2.080). It means that there is significant difference between the students' vocabulary mastery before and after using Mnemonic Technique with Crossword Puzzle Media. It is also said that the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted. Based on the finding and discussion of the research, the researcher concluded that, the using of Mnemonic Technique with Crossword Puzzle Media could improve the students' vocabulary mastery at the 10th Grade of SMA Negeri 11 Watampone.

INTRODUCTION

Teaching English as a foreign language refers to teaching the English language to the students with different first languages. English has been considered to be first foreign language in Indonesia. It functions to help the development of the state and nation, to build relations with other nations, and to run foreign policy including as a language used for wider communication in international forum. In relation to that, Indonesia has been carrying out teaching English Foreign Language in almost level of schools, starting to be taught in basic primary school until secondary school. However, since it is only a foreign language, there are many problems found in the English language learning. In Indonesia English is not considered as a second language but English is a foreign language. English is also called as the target language that has to be taught teach in schools in today's Indonesian curriculum.

Rodger (2011) states that vocabulary are important aspect and role in learning foreign language might be impossible to learn a language without mastering vocabulary. Vocabulary

is defined as a total number of words and a language, all the words known to person or used, and it is list of words with their meaning (Hornby, 1995:1331). Furthermore, Lehr, et.al, in Hanson and Padua (2011:5), state that vocabulary refers to words we use to communicate in oral and print language. Hence, we know that vocabulary is words included in the list, which has meaning approvingly, so we use it as language to communicate in oral and print language. It means that in learning vocabulary we have to know the meaning of it and understand how to use it with suitable context, so at the last we can communicate easily when we have a lot of vocabulary and are able to use them with appropriate context.

The students cannot master English well, because they are lack of vocabulary, the lack of motivation. Learning vocabulary as a foreign language seems easy but some students feel fear. The teacher of English should find out solution by creating efficient and effective technique of teaching in teaching English vocabulary, besides that, the teachers should establish condition, which makes teaching vocabulary possible. Mnemonic Technique with Crossword Puzzle Media is one of effective and interesting technique that can motivate and challenge the student interest to improving the student communicative competence. Through Mnemonic Technique with Crossword Puzzle Media can improve the student mastery of vocabulary.

According to Lestari (2016:3), Mnemonic Technique can be very effective and easy to be applied. One of the most popular mnemonics is Keyword Method. It can motivate the students and the classroom will be more interesting. Mnemonic Technique is a way to help students remember information more effectively and easily. This technique is best used in studying vocabulary in English. Students can master the vocabulary easier and fun. These techniques used to aid the recall of new information. The implementation of mnemonic model helps them remember more information they have learned and can strengthen their vocabulary mastery. Those are the reason why the researcher uses mnemonic technique.

According to Dwijawandono (2009:16), the use of mnemonics techniques are depend on the students learning style. There are students who prefer to find the meaning of words from the dictionary and save it in their memory. Therefore, mnemonics technique can be used to memorize difficult words, while the words that easy to remember are not necessary to use this technique. For practical, the mnemonic keyword technique in teaching vocabulary can collaborate with crossword puzzle as a media. According to Sabiqoh (2016), Crossword Puzzle Media is a game that can be used to teach vocabulary. Then, crossword puzzle is a suitable game use to help students to master vocabulary easily by giving opportunity for them to memorize as much as possible vocabulary, for there will be many words given as cues that should be understand by them in order to be able to fill the squares with the suitable words too.

Based on the preliminary observation students in daily classroom activity at the 10th grade of SMAN 11 Watampone, student often find difficulty in vocabulary and how to different among verb, adjective, adverb, and noun. Based on the problem above, the writer has interest in learning vocabulary, so the writer choose this title as her graduating paper.

Another reason, the writer are excited to applying Mnemonic Technique with Crossword Puzzle Media in teaching vocabulary to learners. By using Mnemonic Technique with Crossword Puzzle Media in teaching vocabulary to learners hopefully the writer and the readers can learn more and increase their vocabulary mastery.

LITERATURE REVIEW

Teaching Vocabulary

It is too difficult to define vocabulary because it is related to different views about its nature and use. Tood (1987), argues that there is no fixed definition. He explains that the word is related to an orthographic, morphological, lexical and semantic aspect. The orthographic word is a written sequence, which has a white space at each end but no white space in the middle. This word exists only in written texts, and it has no existence in speech. The morphological word has to do only with the form. The lexical word considers all the possible forms that can be related by one meaning. The semantic word considers the distinction between items that may be morphologically identical but differ in meaning. Hatch and Brown (1995) defines "vocabulary" as a list or set of words for particular language or a list or set of words that an individual speaker of a language might use.

Dimpudus (2012), vocabulary is one important aspect in learning a foreign language. Without a proportional amount of vocabulary anyone will get trouble in her speaking, reading, listening, and writing. Without a shred of doubt, the writer said that the acquisition of vocabulary would help people in gaining, understanding, and also enhancing the process of knowledgeable transferred for a better life. Indisputably the chances for progress or success in any kind of fields, like computers, technology, economy, politics, tourism, and educational increase with the size and applications of vocabulary.

According to Hornby (1995:1331), vocabulary is the total number of words in language. Vocabulary is an important part to mastery English well. According to Pigeats theory, a child at the age of 7-10 years is always interesting in recognizing and knowing new words, he or she stands to repeat new words repeatedly so that he or she will memorize them. The statement above are different from Richard (2002:255), vocabulary is the core component of language proficiency and provides much of the basis for how well learners speak, listen, read, and write. Jackson and Amvela (2000:11) say that the terms of vocabulary, lexis, and lexicon are synonymous. Another statement about vocabulary comes from Lehr, et.al (2005:2-3), define vocabulary as knowledge of words and words meaning in both oral and print language and in productive and receptive forms.

Based on statement above, the writer concludes that vocabulary is a collection of words or phrases usually arranged in sequence and translated (defined) or vocabulary is the total number of words that are needed to communicate, read, or write. That is the reason why it is important to learn vocabulary.

Definition of Mnemonic Technique

Kozarenko (2006: 15) says that mnemonic derived from a Greek word "Mnemonicon" which mean an art of memorization. Mnemonics are techniques or devices, either verbal or visual in nature, that serves to improve the storage of new information, and the recall of information contained in memory. According to Foster (2009: 123) mnemonic is a way of organizing information to make it easier to remember, typically by using codes, visual imagery, or rhymes. It is important to remember that mnemonics technique is a memory-enhancing strategy and is not designed specifically to enhance comprehension. Based on the definitions above, it can be concluded that mnemonic technique means a technique to utilize memory in certain ways.

Definition of Crossword Puzzle

Crossword Puzzle is effective teaching tool of terminology, definitions, spelling and pairing key concepts with related names, resulting in greater retention and memorization of facts. Because the need to spell items correctly to complete the puzzle, students will be able too to use the words correctly because they connect facts as the puzzle clue to the words, which have to be known the spelling.

Njoroge, et.al (2013) define that the Crossword Puzzle is game that makes the teaching-learning process attractive and funny, and also gives much opportunity for students to practice and repeat the sentence pattern and vocabulary. In this case, the atmosphere of teaching learning process exactly will be more interesting. Moreover, this game is suitable use to increase the students vocabulary mastery based on the context and they can use the words correctly with good spelling and sentences pattern.

In addition, Bressan argues that crossword puzzle, among other things, enhance building, orthography, develop, and test the students' knowledge of morphology. Crossword puzzle has its form to be filled by the students, and it is very effective to teach vocabulary. Besides, there is usually clue given to help the students guess what word it is, so the students understanding will increase as well as their vocabulary mastery. Eventually, the students' knowledge about vocabulary-included morphology will be wide too.

Moreover, according to Wahyuningsih in Njoroge, et.al (2013), Crossword Puzzle is a game in which words guessed from their definition are fitted into a diagram of white and black squares. The crossword has words written horizontally (across clues) and words written vertically (down clues). The pattern of black squares usually serves to separate each word from adjacent words. Correctly deciphering a crossword requires correct spelling, which for students means practice dictionary skill.

Based on the explanation above, it can be concluded that crossword puzzle is a words guessed game fitted into a diagram which is effective as teaching tool of terminology, definitions, spelling and pairing key concepts with related names, resulting in greater retention and memorization of facts that makes the teaching-learning process attractive and funny, and also gives much opportunity for students to practice and repeat the sentence

pattern and vocabulary and enhance building, orthography and the students knowledge of morphology.

METHODS

In this research, the researcher will use pre- experimental design with One Group Pre-test and Post-Test. It consist of single class.

1. Pre-Test

   The pre-test was given in the beginning of attending class to know the students previous knowledge about vocabulary before giving treatment by using mnemonic technique with crossword puzzle media.

2. Treatment

   After doing the pre-test, the researcher given the treatment, which is with use mnemonic technique with crossword puzzle media in teaching and learning process to the students as practice to know their vocabulary mastery.
   a. The students find animals, colors, or plants in the puzzle.
   b. The students find certain part of speech: verb, noun, preposition, and so on.
   c. Other categories may include the names of the days, the week, months, subject and so on.
   d. The student find proper nouns: cities, states, countries, famous people, and so on.
   e. The student finds certain kinds of attractive trades, professions, sport, hobbies, and so on.

3. Post-Test

   Finally the students paper sheets was submitted and the students. Result are treat as the data of the study. The test is similar to pretest.

INSTRUMENT

According to Martin in (Husein, 2014), "*data refers to the kind of information researcher obtain on the subject of their research"*. The instrument of this research was used a vocabulary test. To collected data, the researcher was given vocabulary test to know the students vocabulary mastery. The test consisted of pretest and posttest. The pretest was given before the treatment to know students' knowledge in vocabulary. The posttest to find out the students achievement in vocabulary skill after given treatment.in analyzed the data related to the students test of vocabulary ability, the researcher using analytical scoring rubric for vocabulary, i.e., content and organization. In this study, the researcher combine content and organization component. The following table is the analytical scoring rubric used by researcher to analyze the student's vocabulary.

TABLE 1 MULTIPLE CHOICE SCORING

NUMBER	SCORING
1-20	5
MAXIMAL SCORE	100

Permana, 2018: 5

Note:
- Correct answer   : 5
- Wrong answer   : 0

Mapping of score: N = $\dfrac{\text{Score Achievement}}{\text{Score Maximal}}$ x 100

RESULT AND DISCUSSION

1. The Improvement of the Students' Vocabulary in Term of Noun

TABLE 2. THE STUDENTS' MEAN SCORE OF INDICATOR

Indicator	Pre-Test Score	Post-Test Score	Improvement %
Students Vocabulary in term Noun	7,92	8,88	45,82%

The table above indicates that there is improvement on the students vocabulary in term noun from pre-test to post-test, which in pre-test of the students mean score achievement in noun 7,92 but after giving a treatment the students vocabulary in term noun become 8,88. Therefore, the improvement of the students' vocabulary in term noun from the pre-test to post-test is 45, 82 %

2. The Improvement of the Students' Vocabulary in Term of Adjective

TABLE 3. THE STUDENTS' MEAN SCORE OF INDICATOR

Indicators	Pre-Test Score	Post-Test Score	Improvement %
Students Vocabulary in term Adjective	6,51	8,33	57,07%

The table above indicates that there is improvement on the students vocabulary in term adjective from pre-test to post-test, which in pre-test of the students mean score achievement in adjective 6,51 but after giving a treatment the students vocabulary in term adjective become 8,33. Therefore, the improvement of the students' vocabulary in term adjective from the pre-test to post-test is 57, 07 %

3. **The Students' Rate Percentage and Frequency in term of Noun**

   The students result on vocabulary improvement through Mnemonic Technique with Crossword Puzzle Media in pre-test and post-test was shown in the following:

TABLE 4 THE STUDENTS' SCORE CLASSIFICATION IN TERM NOUN OF PRE-TEST AND POST-TEST

No.	Classifications	Range	Pre-Test		Post-Test	
			Frequency	%	Frequency	%
1.	Very Good	90-100	-	-	-	-
2.	Good	70-89	-	-	-	-
3.	Fairly	50-69	1	3,70	5	18,51
4.	Poor	30-49	25	92,6	22	81,48
5.	Very Poor	Less than 30	1	3,70	-	-
	Total		27	100	27	100

The table above shows that the frequency and percentage of the students vocabulary in term are different between pre-test and post-test. The result of pre-test only 1 (3, 70%) students was classified as fairly, 25 (92, 6%) students was classified poor, 1 (3, 70) students was classified as very poor, and none students got very good and good.

After applied the Mnemonic Technique with Crossword Puzzled Media, the result in post-test 5 (18, 51%) students was classified as fairly, 22 (81, 48%) students was classified as poor, and none students got very good, good and very poor. The students' vocabulary in term of Noun can improve mean through Mnemonic Technique with Crossword Puzzle.

4. **The Students' Rate Percentage and Frequency in Term of Adjective**

   The students result on vocabulary improvement through Mnemonic Technique with Crossword Puzzle in pre-test and post-test was shown in the following:

TABLE 5 THE STUDENTS' SCORE CLASSIFICATION IN TERM ADJECTIVE OF PRE-TEST AND POST-TEST

No.	Classifications	Range	Pre-Test		Post-Test	
			Frequency	%	Frequency	%
1.	Very Good	90-100	-	-	-	-
2.	Good	70-89	-	-	-	-
3.	Fairly	50-69	-	-	5	18,51
4.	Poor	30-49	23	85,2	22	81,48
5.	Very Poor	Less than 30	4	14,2	-	-
	Total		27	100	27	100

The table above shows that the frequency and percentage of the students vocabulary in term adjective are different between pre-test and post-test. The result of pre-test 23 (85, 2%) students was classified as poor, 4 (14, 2%) students was classified as very poor, and none students got very good, good, and fairly.

After applied the Mnemonic Technique with Crossword Puzzle Media, the result in post-test 7 (23, 33%) students was classified as excellent, 5 (18, 51%) students was classified as fairly, 22 (81, 48%) students was classified as poor, and none students got very good, good and very poor. It is mean that the students' vocabulary in term of adjective can improve through Mnemonic Technique with Crossword Puzzle Media.

5. **The Students' Rate Percentage and Frequency in Vocabulary of the Pre-Test and Post-Test**

The findings of the research deal with the rate percentage of the students score obtained through the test mean score, standard deviation, and test of significance.

a. The Students' Rate Percentage and Frequency.

The students result on vocabulary improvement through Extensive Reading Activities in pre-test and post-test was shown in the following:

TABLE 6 THE STUDENTS' SCORE CLASSIFICATION VOCABULARY

No.	Classifications	Range	Pre-Test		Post-Test	
			Frequency	%	Frequency	%
1.	Very Good	90-100	-	-	5	18,51
2.	Good	70-89	18	66,66	22	81,48
3.	Fairly	50-69	7	25,92	-	-
4.	Poor	30-49	2	7,40	-	-
5.	Very Poor	Less than 30	-	-	-	-
	Total		27	100	27	100

The table above shows that the frequency and percentage of the students vocabulary in term synonym are different between pre-test and post-test. The result of pre-test only 22 (66, 66%) students was classified as good, 7 (25, 92%) students was classified as fairly, 2 (7, 40%) students was classified as poor, and none students got very good and very poor.

After applied the Mnemonic Technique with Crossword Puzzle Media, the result in post-test 5 (18, 51) students was classified as very good, 22 (81, 48%) students was classified as good, and none students got fairly, poor, and very poor. It is mean that the students' vocabulary can improve through Mnemonic Technique with Crossword Puzzle Media.

b. The Mean Score and Standard Deviation

After having calculated the result of the students pre-test and post-test, the standard deviation of the students' vocabulary in vocabulary test are presented in the table below:

TABLE 7 THE STANDARD DEVIATION IN PRE-TEST AND POST-TEST

Type of test	Mean Score	Improvement	Standard Deviation
Pre-test	69,25	24,34%	366,5
Post test	86,11		455,6

The table above showed the students' mean score and standard deviation both in pre-test and post-test. The mean score of the result of the students' pre-test was 69,25 which is classified as "fair" with standard deviation 366,5 and the mean score of the result of the students' post-test 86,11 is classified "very good" with standard deviation 455,6.

c. Test Significant

To know the effectiveness of using Mnemonic Technique with Crossword Puzzle Media to improve the students vocabulary, the researcher used t-test analysis in the level of significance 0,05 with the degree of freedom (df) = N-1 Where N= Number of students (27) therefore 27-1= 26 and the value t-table is 2,056.

If the t-test value was greater than the t-table at the level of significant 0,05 and degree of freedom 26, thus the alternative hypothesis (H_1) would accepted and null hypothesis (H_0) would be rejected.

TABLE 8 THE T-TEST OF THE STUDENTS' VOCABULARY

Indicator	t-test	t-table	Comparison	Classification
Vocabulary	7.082	2.056	t-test > t-table	Significantly

The result of data analysis was the t-test value (7.082) was greater than t-table value (2.056). Based on the result, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_1) is accepted.

DISCUSSION

Improvement of Students Vocabulary in Term of Noun

Based on the research was conducted, where samples were 27 students from 179 population, the result of the research, that Mnemonic Technique with Crossword Puzzle Media improve students vocabulary in Term of Noun. Because the researcher had investigated every elements of the instrument that researcher used. There were two instrument: Pre-test and Post-test, and the result is the mean score of vocabulary was 7,92 to 8,88, it show that the Mnemonic Technique with Crossword Puzzle Media successful to improve students vocabulary in term of noun.

The result of the research, that Mnemonic Technique with Crossword Puzzle Media improve students vocabulary, It seems from the rate mean score 7,92 to 8,88 with percentage 45,82%, it show that the students vocabulary improve after given treatment by used Mnemonic Technique with Crossword Puzzle Media.

The researcher analyzed that Mnemonic Technique with Crossword Puzzle Media is influence of students' vocabulary. The researcher corrected the mnemonic technique with crossword puzzle by focusing on the keyword method as a main technique and then crossword puzzle as a media. Beside that, the researcher also focused students' vocabulary in term of noun. These components also were a guideline of researcher in scoring the students' vocabulary test.

By looking at the test finding, form the data provided in classification table based on the component of vocabulary in pre-test and post-test, clearly to see that students vocabulary

score especially for noun on the rate mean 7,92 to 8,88 with percentage 45,82%. Score of t-test 7.082 and t-table 2.056 also support it; by that data, the researcher concluded that Mnemonic Technique with Crossword Puzzle Media improved students' vocabulary in term of noun with significance classification.

Improvement of Students Vocabulary in Term of Adjective

The researcher also gave a test for getting result of students' vocabulary in term of adjective. The result of this research also indicated that students vocabulary in term of adjective had improve by used Mnemonic Technique with Crossword Puzzle Media. The mean score of vocabulary in term of adjective was 6, 51 to 8, 33, it show that the Mnemonic Technique with Crossword Puzzle Media successful to improve students vocabulary in term of adjective.

The researcher analyzed that Mnemonic Technique with Crossword Puzzle Media is influence of students' vocabulary. The researcher corrected the mnemonic technique with crossword puzzle by focusing on the keyword method as a main technique and then crossword puzzle as a media. Beside that, the researcher also focused students' vocabulary in term of adjective. These components also were a guideline of researcher in scoring the students' vocabulary test.

By looking at the test finding, form the data provided in classification table based on the component of vocabulary in pre-test and post-test, clearly to see that students vocabulary score especially for adjective on the rate mean 6,51 to 8,33 with percentage 57,07%. Score of t-test 7.082 and t-table 2.056 also support it; by that data, the researcher concluded that Mnemonic Technique with Crossword Puzzle Media improved students' vocabulary in term of adjective with significance classification.

CONCLUSION

Considering the data analysis and the discussions in the previous chapter, the writer puts forward the conclusions that the effect of Mnemonic Technique with Crossword Puzzle Media improve students' vocabulary at the 10th Grade of SMA Negeri 11 Watampone. The vocabulary students of the first year students of SMA Negeri 11 Watampone in Academic Year of 2018/2019 is fair classification before giving Mnemonic Technique with Crossword Puzzle Media in Teaching Vocabulary to learners. It is proved by the mean score of pre-test was 69, 25 and standard deviation in pre-test was 366, 5. Collaborative Mnemonic Technique with Crossword Puzzle Media is affective to improve the vocabulary of the 10th Grade Students of SMA Negeri 11 Watampone. Although fair classification but the result of the t-test 7,082 which is greater than t-table 2. 056.

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