ABSTRACT: The objective of this study to find out whether or not there was any significant difference on vocabulary mastery between students who were taught by using Word Square technique and those who were not. This study used quasi experimental design. The population of this study was the eighth-grade students of SMP Methodist 1 Palembang. The researchers used purposive sampling. There were 43 students as the sample. Each class consisted of students from VIII.A and 22 students from VIII.B. The researcher used paired sample t-test to compare the pretest and posttest result in experimental and control group. The result revealed that the significance (2-tailed) was 0.000, which is lower than alpha value 0.05, then t-obtained value = 5.340 was higher than t-table 2.086. In conclusion, the use of Word Square technique was effective to improve students’ vocabulary mastery at the eighth-grade students of SMP Methodist 1 Palembang. The data was analyzed by using independent sample t-test. The result showed that t-obtained 3.121 was higher than t-table 2.020 with degree of freedom (df=41) and the significant 2-tailed was 0.003. Therefore, there was a significant difference on vocabulary mastery between the students who were taught by using Word Square technique and those who were not.

Keywords: Word Square Technique, Vocabulary Mastery

ABSTRAK: Tujuan penelitian ini adalah untuk menemukan adanya perbedaan dalam penguasaan kosa kata antara siswa yang diajar dengan penggunaan Word Square technique dan yang tidak. Penelitian ini menggunakan desain quasi eksperimen. Populasi dari penelitian ini adalah siswa kelas VIII SMP Methodist 1 Palembang. Ada 43 siswa yang dijadikan sebagai sampel, yaitu 21 siswa di kelas VIII.A dan 22 siswa di kelas VIII.B. Peneliti menggunakan paired sample t-test dan independent sample t-test untuk menganalisis data. Hasil menyatakan bahwa nilai signifikansi 2-tailed adalah 0.00, lebih rendah dari nilai α 0.05, kemudian nilai t-hitung (5.340) lebih tinggi dari t-table (2.086). Disimpulkan bahwa penggunaan teknik Word Square efektif untuk meningkatkan kosa kata siswa. Hasil dari independent sample t-test menunjukkan bahwa t-hitung (3.121) lebih tinggi daripada t-table (2.020) dengan nilai signifikansi 2-tailed sebesar 0.003. Oleh karena itu disimpulkan terdapat perbedaan signifikan pada penguasaan kosa kata antara siswa yang diajar dengan penggunaan teknik Word Square dan yang tidak.

Kata Kunci: teknik Word Square, penguasaan kosa kata
INTRODUCTION

Vocabulary is one of the most important language components than grammar, it is also the key to students’ understanding what they hear and read in school and to communicate successfully with other people. Thornbury (2002, p. 13) also explains that without grammar very little can be conveyed, without vocabulary nothing can be conveyed. In other words, the first thing that has to be mastered by language learners in learning language is vocabulary especially to master skills in English. It is necessary in the sense that words are the basic building blocks of language, the unit of meaning from which larger structures such as sentences, paragraphs and whole texts are formed.

In learning a foreign language, vocabulary is still a problem for students in Indonesia. Many students have problems with vocabulary that can affect the students to master four skills in English. According to Ivona (2005), the lack of vocabulary knowledge could be one of factors that contributes to the low level of proficiency gained by Indonesian students. This factor may be part of the consequences of how vocabulary is handled in teaching and learning process.

There are some problems in mastering vocabulary for students. First, the students did not know the words, spelling, and meaning when they learned the English language in the classroom. Second, students only thought of vocabulary learning as knowing the primary meaning of new words. Therefore, they ignored all other functions of the words. Third, students only acquired new vocabulary through new words in their textbooks or when given by teachers during classroom lessons. Fourth, many students did not want to take some risks in applying what they had learnt. Students might recognize a word in a written or spoken form and thought that they had already know "the word", but they might not be able to use that word properly in different contexts or pronounce it correctly (Huyen and Nga, 2003, p. 50). Based on the researchers’ interview in November 2020 with an English teacher at Junior High School of Methodist 1 Palembang, the researchers found that the eighth grade students had lack of vocabulary mastery. It could be proven from some of the students had unsuccessful score criteria which they only got the average score was 65. The students were still low to understand the meaning of words, it was caused by the students did not have a lot of vocabularies and most of them suppose that learning English was a difficult subject. Applying to the method, strategy or technique could be overcome the difficulties to learn vocabulary.

Therefore, the researcher used one of ways to learn English especially in vocabulary that was Word Square technique which it as an alternative way to improve students' vocabulary mastery. According to Philips (2001), Word Square is a word game that letters or a word in a grid that usually has a rectangular or square shape. The objectives of the game are to find and mark all of the words hidden in the grid. The words could be placed horizontally, vertically and diagonally. They could be written from right to left or bottom to top as well.

Word Square technique could make the students be active because this technique could help the students to be independent, they were asked to be discipline with their tasks to understand about the materials. This model is not to make the students be difficult to study but it has purpose to force the students to think effectively.

Goumas (2019) explained in his research entitled "Implementation Word Square..."
Game to Teach Vocabulary in Learning Language at Bryant Junior High School "Miniepolis". His result research showed that Word Square facilitates the students to learn vocabulary as a foreign language, therefore Word Square is suitable technique to increase the students' vocabulary mastery. While, Krisnawati (2017) in her research entitled "Improving Students' English Vocabulary with Word Square Method at SMP 1 N Karangkobar". The result showed that the use of Word Square can attract the students to learn English vocabulary.

Thus, based on the explanation above, the researchers were interested in conducting the research entitled "Using Word Square Technique to Improve Students' Vocabulary Mastery to the Eighth Grade Students of SMP Methodist 1 Palembang".

Vocabulary Mastery

Vocabulary is one important aspect in learning a foreign language. Without a high amount of vocabulary anyone will get trouble in speaking, reading, listening, and writing. According to Richard and Renandya (2002, p. 25), vocabulary is a core component of language proficiency and provides much of the basis how well speak, listen, read, and write. Hiebert and Kamil (2005, p. 3) states that words have two forms, the first is oral which vocabulary is a set of words that understand of the meaning when we speak or read orally. Second, the printed of vocabulary consists of the words which contain of the information. The meaning is known when we write or read silently.

Furthermore, Thornbury (2002, p. 13) argues that without vocabulary nothing can be conveyed. It means that in learning vocabulary learners have to know the meaning of words and also understand when use it in sentence context. Vocabulary refers to all words in the whole language used in a particular variety. While, mastery is a great knowledge about understanding of a particular things. It means mastery is a competence someone to understand the material or to do something. According to Richard and Renandya (2002, p. 256), mastering in language teaching is defined as a learner's proficiency in a second language and foreign language as the result of what has been taught or learned after period of instruction. Porter (2001, p. 953) states that mastery is learning or understanding something completely and having no difficulty to using it. It means that mastery is a competency to learn or understand of something to learned. Then it can be said that vocabulary mastery is the competency to learn or understand a number of words learned.

Importance of Vocabulary

Vocabulary has importance for the students that can make them easier to learn English as a foreign language. Generally, vocabulary can be a main function are to support the four major skills namely listening, speaking, reading, and writing. Cameron (200, p. 72) believes that building vocabulary can make it easier for students to understand a foreign language at a basic level. Building vocabulary means understanding the meaning of words and learn to decode the words. Thus, the use of vocabulary buildings can help students in learning vocabulary mastery. The use of new vocabulary is also key to membership of many social and professional roles. Bromley (2004, p. 3-4) describes that vocabulary have some important roles in the teaching-learning process, they are as follows: 1) Promoting Fluency
Students who recognize and understand many words read more quickly and easily than those with smaller vocabularies. Therefore, fluent readers have better comprehension than less fluent readers.

2) Boosting Comprehension

Vocabulary knowledge strongly influences comprehension. On a component analysis of comprehension, word meanings were found to make up 74% of comprehension.

3) Improving Achievement

A large vocabulary means a large fun of conceptual knowledge which makes academic learning easier. Students with large vocabularies score higher an achievement test than those with small vocabularies.

4) Enhancing Thinking and Communication

Words are tools for analyzing, inferring, evaluating, and reasoning. A large vocabulary allows for communicating in ways that are precise, powerful, persuasive and interesting.

Types of Vocabulary

Vocabulary are the important skill that must be known by the student. Jackson and Amvela (2002) state that There are two kinds of vocabulary. Those are active vocabulary and passive vocabulary. Firstly, is active vocabulary is also recognized as working vocabulary or functional vocabulary. It consists of words one uses for a speech or writing as he fully understands meaning of the words. This kind of vocabulary enables students to perform either in oral or written of English skills. Secondly, passive vocabulary consists of words a person encounters in speech or writing of other people. According to Nation (2008, p. 13-14), there are three types of vocabulary, they are:

1) High-Frequency Words

There is a small of high-frequency words which are very important because these words cover a very large proportion of the running words in spoken and written texts and occur in all kinds use of the language.

2) Specialized Vocabulary

Special vocabularies are made by systematically restricting the range of topics or language uses investigated. It is possible to have special vocabularies for speaking, reading, academic texts, for reading newspaper, for reading children's stories, or for letter writing.

3) Low-Frequency Words

There is a very large group of words that occur very infrequently and cover only a small proportion of any texts.

Teaching of Vocabulary Mastery

The teaching of vocabulary can be the important thing in language. The English teachers had better teach English vocabulary first than aspect of the language such as grammar, speaking reading and writing, if the students have a lot of vocabularies, it will be easy for them to learn another aspect of English learning. According to Brown (2004), teaching is guiding, showing, and giving instruction or helping someone to understand and
know how to do something. Harmer (2001, p. 155) gives an explanation there are some techniques for teaching vocabulary that is summarized as follows:

a. Demonstration
   The teacher demonstrates the language where she or he wants the students to study by offering them through in their action.

b. Explanation
   The teacher explains the material of language in detail and using some media such as, textbook, board or overhead projector.

c. Discovery
   The students can be encouraged to understand a new language form by discovering them in a test or by looking for at grammatical evidence in order to work out grammar rule.

d. Check Question
   The teacher can give and check some questions to see if students have understood the meaning and use in the text or paragraph.

e. Presentation
   The teacher shows the things with does not present words to students, for example showing a picture, video and also use the mime, action, and gesture to present the words.

Word Square Technique

Word Square Technique is a cooperative learning model which that combines the ability to answer questions with carefulness in matching answer on the box. According to Philips (2001), Word Square is a word game that letters or a word in a grid that usually has a rectangular or square shape. The objectives of the game are to find and mark all of the words hidden in the grid. The words can be placed horizontally, vertically, diagonally, right to left or bottom to top as well.

Meanwhile, Istarani (2012) states that Word Square is a learning model that uses boxes in the form of crosswords as a tool in conveying teaching material in the teaching and learning process. This model is also assisted by an answer instrument or student worksheet tool such as a crossword puzzle but the answers are already there and match them with other letters in the box. Urdang (2003, p. 120) describes Word Square is a set words that have relation from one word to other words that arranged in the form of a square, it can read horizontally and vertically. The method is applied like a game that is introducing or using variations in the form of learning vocabulary.

Based on explanation, it can be concluded that Word Square is a learning model that is more training attitude thorough and critical. The learning model of Word Square technique can encourage the students' understanding of the subject matter and create an interesting atmosphere, where the students find some words in randomly from various ways by horizontally, vertically, diagonally, right to left or bottom to top.
Advantages and Disadvantages of Word Square Technique

There are many advantages of Word Square technique in language learning. For the teachers, this learning model can help the teacher to explain more about material. In addition, the teacher knows how far the material can be understood by the students. For the students, these activities can improve the students' understanding of the meaning some words in materials.

Moreover Istarani (2012), described that the advantages of Word Square technique are:

1. To facilitate the students be easier to master the materials because it has instructions to search answer in the box.
2. To facilitate the teacher be easier to present the material because the teacher can instruct the students to the box that has been prepared before.
3. To improve the students' learning activities because it will be continued to hatch the letters in the box according to answer.
4. To make the students feel not bored, it can make them be fun to learn English especially in vocabulary.

There are some disadvantages of word square technique according to Istarani (2012), they are as follows:

1. The varies of box needs creativity of the teacher.
2. The students often find between box have been prepared, it does not match with the question.
3. The question which requires needs definitive answer requires high competence from a teacher.
4. The students only receive material and work on students' worksheets given by the teacher.

**Teaching Procedures of Word Square Technique**

The procedure of Word Square technique is very simple and easy. In principle, Word Square technique can create interesting in activities teaching and learning. In addition, the students can improve critical thinking because the students can search some words randomly and they will be written down.

Aqib (2013) describes there are some steps of Word Square technique includes the following:

a. The teacher asked the previous material and explained the new material in brief.

b. The teacher prepared a worksheet that consists of some squares with the words which hidden and the students found a new vocabulary in the box answer. The teacher and the students did some questions and answers about the material that had been described.

c. The teacher asked the students to come forward to shade the existing answers in the box.

d. The teacher distributed the worksheets with randomized answers.

e. The students answered the questions given by the teacher.

f. The teacher conducted the evaluation about the material.

Word square technique is the same as other model learning that has an objective to improve the results of students. Meanwhile, according to Istarani (2012), Word Square Technique have five steps they are:

a. The teacher prepared the worksheet to be used in teaching and learning process.

b. The teacher conveyed the material according to competence that will be achieved.

c. The teacher distributed activity sheets according to the sample.

d. The students answered the question then search the letter in the box according to the correct answer.

e. The teacher would give points for each answer to the students.

**METHODOLOGY**

This study used quasi experimental design as comparative of both group they are experimental and control group. The researcher used pre-test and post-test was administered after the treatment of using Word Square technique. In this study independent variable was Word Square Technique and dependent variable was students' vocabulary mastery. The population of this study were all eighth grade students of SMP Methodist 1 Palembang in the academic 2021/2022. At this school, there were four classes of the eighth graders. The total population of this study were 86 students. In this study, the researcher chose purposive sampling technique. There were 43 students as the sample which was two classes each the class consisted of 21 as experimental group and 22 students as the control group.

The researcher used content validity and it is done by matching the material with the curriculum content by creating the test item with the table of test of item spefication. The try out test consisted of 40 questions in the form of multiple choices. The researcher
used corrected item-total correlation that was used to correlate between each item and the total score from instrument. The try out (TO) was done at VIII. 4 class with 27 students at SMP N 26 Palembang. The researcher found that r table was 0.381.

From 40 items multiple choice given in try out test, there were 20 items valid: item 1, item 3, item 4, item 6, item 7, item 11, item 13, item 19, item 20, item 22, item 26, item 27, item 28, item 30, item 31, item 32, item 33, item 35, item 36, and item 38. The researcher used split half method to measured reliability of this study. The result of reliability statistics showed that the test had value 0.853 which was higher than 0.80 and it was higher than minimum score of reliability in the table of Cronbach’s Alpha reliability level, therefore it can be concluded that the test was very reliable. In analyzing data, the researcher used scoring test, normality, homogeneity test, paired sample test and independent sample test.

The researcher used Shapiro-Wilk to measure the normality of pretest and in experimental group and control group. Based on the result of normality showed that the significance value of the pretest in experimental group was 0.143 which was higher than 0.05 and the pretest of control group was 0.094 which was also higher than 0.05. Therefore, it can be concluded that the data of both groups had normal distribution. Then, in analyzing the normality of posttest showed that in the experimental group value was 0.107 and the control group value was 0.65 which was higher than alpha value 0.05. Therefore, it can be concluded that the data obtained in the post-test were normally distributed.

The researcher used Levene Statistics to measure the homogeneity of pretest in experimental and control group. The significance value of 2-tailed was 0.353. It means that the significant of experimental and control group were higher than 0.05. Therefore, the homogeneity of pre-test in both of groups were variances and it can be concluded that the data were homogeneous. Next, the result of post-test in experimental and control group showed that the significance value of 2-tailed was 0.071. It means that the significant of experimental and control group were higher than 0.05. Therefore, the homogeneity of post-test in both of groups were variances and it can be concluded that the data were homogeneous.

FINDINGS AND DISCUSSION

Paired Sample T-Test

The result of paired sample test to compare analysis of pretest and posttest in experimental group. It can be seen that the result of t-obtained = 5.340 with degree of freedom was 20 and the significance (2-tailed) was 0.000. It was lower than alpha value 0.05. It was compared that t- obtained value = 5.340 was higher than t-table 2.086. It could be concluded that the use of Word Square technique was effective to improve students’ vocabulary mastery to the eighth grade students of SMP Methodist 1 Palembang.
The result of paired sample t-test in control group showed the significance (2-tailed) was 0.001 which was lower than alpha value 0.05. The t-obtained value 3.697 was higher than t-table 2.080. It could be said that the use of lecturing method also was effective to students’ vocabulary mastery to the eighth grade students of SMP Methodist 1 Palembang.

Table 2. The Result of Paired Sample T-Test in Control Group by using Lecturing Method

| Paired Differences | Mean       | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | t   | df | Sig. (2-tailed) |
|--------------------|------------|----------------|-----------------|----------------------------------------|-----|----|----------------|
| Pair 1 Pretest - Posttest | -5.227     | 6.633          | 1.414           | -8.168                                 | -3.697 | 21 | .001           |

Independent Sample T-Test

The researcher used independent sample t-test to compare the results posttest result between experimental and control group.

Table 3. The Result of Independent Sample Test

| Levene’s Test for Equality of Variances | t-test for Equality of Means |
|----------------------------------------|-----------------------------|
| F           Sig. | t df | Sign. Error Difference | Mean | 95% Confidence Interval of the Difference |
| Result Equal variances assumed | 1.709 | .071 | 3.121 | 41 | .003 | 11.212 | 5.287 | .535 | 21.889 |
| Equal variances not assumed | 3.143 | 35.3 | 78 | .003 | 11.212 | 5.287 | .596 | 21.828 |
Based on the table above, it showed that the value of t-obtained was 3.121. The value sig. (2-tailed) was 0.003 with degree of freedom was 41 from, the mean difference of both groups was 11.212 and the result of t-obtained was 3.121 higher than t-table 2.020, and the significance value was lower than 0.05. Therefore, the researchers concluded that there was a significant difference on vocabulary mastery between the students who were taught by using Word Square technique and those who were not.

After the treatment was applied by using Word Square technique, there were progress and improvement in their vocabulary achievement to memorize some words well, the students were able to answer the questions based on the material that they had studied easily and more interesting because it had instructions to find the answer that already have some words in the box. It made the students feel not bored, it could make them be fun to learn English especially in vocabulary. There was an obstacle when applying the treatment which was not done directly face to face to the students at school, It was caused by some students who were difficult to be involved during the treatment

From the explanation of the researcher, there were some previous studies related to the findings of this study. The first study by Sopia (2018) stated that increasing vocabulary by using Word Square was effective to the students, they had the highest improvement on the criteria of students’ score and the second by Hasibuan (2019) described that teaching by Word square model made the teachers be easier to practice the students in learning English vocabulary. Therefore, these all the reasons why Word Square technique could be effective to improve students’ vocabulary mastery.

Although, the use of lecturing method in control group also was effective to students’ vocabulary mastery but there was significant difference in using by Word Square technique. It had proven from comparison the result of pretest and posttest of both group which the mean score of pretest in experimental group was 64.52 and the mean score of pretest was 65.23 in control group, then the mean score of posttest in experimental group was 81.67 while the mean score of control group was 70.45. It showed that each groups had difference of the result both of tests but in the posttest result could be seen that the score in experimental group was higher than control group. It can be concluded that the use of Word Square technique was effective to improve students’ vocabulary mastery to the eight grade students of SMP Methodist 1 Palembang.

CONCLUSION

Based on the findings and interpretation of the study, the researcher concluded any significant difference on vocabulary mastery who were taught by using Word Square technique were better than those were not. It had proven from the students’ posttest result after they were given the treatment. The use of Word Square technique was effective to improve students’ vocabulary mastery to the eighth grade of SMP Methodist 1 Palembang. It could be said that, there was any significant difference on vocabulary mastery between students who were taught by using Word Square technique and those who were not.
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