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## THE EFFECT OF USING ANAGRAM GAME IN IMPROVING STUDENTS' VOCABULARY MASTERY AT THE ELEVENTH GRADE OF SMA NEGERI 4 BAUBAU

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### Abstract

This study is aimed to find out the effect of using anagram game to improve students' vocabulary mastery at the eleventh grade of SMA Negeri 4 Baubau. The research used quantitative approach and applied quasi experimental design. The population of this research was the eleventh grade students of SMA Negeri 4 Baubau. The number of population was 185 students. The sample was class XI MIA 5 as the experimental class and class XI MIA 1 as the control class in which the total of both classes was 60 students. The sampling technique in this research was cluster random sampling. The instrument of the research was tests in the form of multiple choices. The data obtained were analyzed by using SPSS 22.0 program. The result of the research shows that the mean score of experimental class in pre-test is 55.17 and the mean score in pre-test of control class is 47.50, while the mean score of experimental class in post-test is 72.83 and the mean score of control class in post-test is 56.83. The data shows that the mean score of experimental class is higher than the control class. The result of hypothesis testing is found that  $t_{count} 57.44 > t_{table} 2.021$  and the probability value (sig.(2-tailed))  $0.000 < 0.05$  which means that  $H_a$  is accepted and  $H_0$  is rejected. Thus, there is a significant effect of using anagram game in improving students' vocabulary mastery at eleventh grade of SMA Negeri 4 Baubau.

Keywords: anagram, game, vocabulary.

## 1. INTRODUCTION

English as an international language is very important to be learned in all formal school levels ranging from kindergarten up to senior high school as well as a major subject in universities in Indonesia. There are four skills emphasized on English language teaching, they are reading, listening, speaking, and writing. Among these skills, the most important element is vocabulary, because vocabulary is used in almost all skills in English. Students have to master vocabulary, grammar, and pronunciation to support their ability in listening, speaking, reading, and writing [1].

There are various perspectives for the term vocabulary. Vocabulary is usually described as information about words and their meanings. It is also regarded as a list of words with their meanings arranged in alphabetical order. However, there is still much more to know about a word than the meaning [2]. Meyer and Schmitt [3] argue that mastering vocabulary does not only deal with the aspect of meaning but also the aspects of form and use. It means that if a learner is said mastering certain vocabulary he should know its forms (e.g. how it is spelled and pronounced), its meanings (e.g. not only the literal meaning of a word but also other meanings), and its uses (e.g. what words come together with the word). Each aspect consists of three components; the aspect of *form* (spoken, written, and word parts); the aspect of *meaning* (form and meaning, concepts and referents, and associations); the aspect of *use* (grammatical functions, collocations, and constraints on use). All the components are called word knowledge. Furthermore, Neuman and Dwyer in Alqahtani [4] define vocabulary as word we should understand to communicate effectively; words in speaking (expressive vocabulary) and words in listening (receptive vocabulary). While, Kamil and Hiebert [5] say that words can come in oral form such as those used in listening and speaking (receptive vocabulary) or they can come in print form such as those words we recognize and use in reading and writing (productive vocabulary).

In learning language, vocabulary has a very important role. The more vocabulary someone masters, the easier he understands the conversation or writing of other people as well as communicate ideas in oral or written form. Fauziati [6] stated that vocabulary is a central to language and critical important to typical language learner. Without adequate vocabularies, students cannot communicate effectively or even convey their ideas both in oral and written form. Moreover, the importance of vocabulary is explained by Wilkins in Alizadeh [7] that without grammar very little can be conveyed, and without vocabulary nothing can be conveyed. It means that communication cannot be held if the participants do not know any vocabulary in the language they want to speak. Thus, vocabulary should be the basic knowledge possessed by a language learner.

Based on the researchers' experience when doing pre-observation at SMA Negeri 4 Baubau, they found that many students become bored with the English learning activities. Some of them did not have interest to join the English class. Sometimes, the students could not be quiet and they were so noisy, as well as disturbed their friends during the learning process because they did not understand the lesson delivered by the teacher. It was caused by lack vocabulary had by the students.

However, there are some strategies to create an enjoyable atmosphere in classroom. One of them is through game. Game is to mean an activity which is entertaining and engaging, often challenging, and an activity in which the learners play and usually interact with others [8]. Games are always fun, so that it is expected to make students keep motivated in learning and draw their eyes during the process. In addition, Derakhshan [9] states that games are helpful in vocabulary learning because they improve students' ability to memorize words, boost student's interaction, advance their communicative skills and increase students' motivation. Games also can help the teacher to generate contexts in which the language is useful and meaningful.

There are some word game exercises that can be used in classroom learning such as

puns, riddles, crosswords, puzzles, anagrams, and palindromes. Among the games, the researcher is interested to apply anagram game as teaching technique to improve students' vocabulary mastery. Anagram can motivate and encourage the students' interest learning vocabulary. Anagram will make the students able to emphasize on the importance of letters position in relation to words meaning. According to Collins in Bachtiar [10], anagram game is a kind of word play by reorganizing the letters of a word or phrase to create a new word or phrase, using all the original letters exactly once. For example, word *bag* can be rearranged into *gab*. First, letters of a word or phrase must be rearranged. Second, new word or phrase should be generated. Third, every letter of the original must be used in the new expression. Each letter can only be used as many times as it appears in the original.

In addition, anagram are used to develop an interest in every words. Therefore, the students are curious to dig more information about the words and it is likely to improve their vocabulary.

Vocabulary cannot be easily mastered by nonnative speakers. Even to understand a word they need to get enough exposure to the word in the target language, so that they know how its form, meaning, and uses. Mastering vocabulary is not an instant work. It is something that expands and deepens over the course of a life time. Therefore, vocabulary is one of the main problems often faced by students in learning English as a Foreign Language.

The objective of the research is to find out the effect of using anagram game to improve students' vocabulary mastery at eleventh grade of SMA Negeri 4 Baubau.

## 2. METHODS

### 2.1 Type of The Research

The research used quantitative approach and applied quasi experimental design employing pretest-posttest, control and experimental groups to know whether there is a significant effect of using anagram game

in improving students' vocabulary mastery at eleventh grade of SMA Negeri 4 Baubau.

### 2.2 Population and Sample

The population of this research included the first semester of eleventh grade students of SMA Negeri 4 Baubau in the academic year 2019/2020 consisted of seven classes are XI.IPA.1, XI.IPA.2, XI.IPA.3, XI.IPA.4, XI.IPA.5 and XI.IPA.6, with total number of students were 185 students. The sample taken was two classes randomly: the class XI MIA 1 as the experimental class which consists of 30 students and the class XI MIA 5 as the control class which consists of 30 students. So, the total was 60 students.

### 2.3 Procedures

#### a. Pre-test

The first meeting, the researcher gave pre-test. The pre-test was given before starting experiment. The test was distributed to the students in the control and the experimental classes, in order to know the students' prior vocabulary mastery. In the pre-test, the researcher gave 20 numbers of multiple choice test to the students.

#### b. Treatment

For the second until the fifth meeting the students were given treatment. The different treatment had been given to the control and experiment classes. Only the experimental class received treatment by using anagram game, while the control class did not exposed to this treatment and they were taught by using conventional method.

1) The procedures of treatments for the experimental class as follows :

- a) Greeting the students.
- b) Checking the students' attendance.
- c) Informing the objectives of learning activity.
- d) Students were divided into groups where each group consisted of six students.
- e) Students got some words consist of three until six letters.
- f) Students should arrange the letters into new words.

- g) Students used all the letters to form new words as many as possible.
  - h) Students presented their answer in front of the class.
  - i) Group which got the most new words was the winner.
  - j) Finally, the lesson was ended.
- 2) The procedures of treatments for the control class as follows :
- a) Greeting the students.
  - b) Checking the students' attendance.
  - c) The researcher gave the material and explain about the lesson which taught to the students.
  - d) The researcher geve the understanding about the material to the students.
  - e) Then, the researcher asked the students whether they understand or not.
  - f) Finally, the lesson was ended.

c. Post- test

In the sixth meeting after the treatment given, the researcher gave the post- test to the students. The type of test same as the pre- test. It aimed to know the impact of the implementation of anagram game in building students' vocabulary. Then, the score of the post-test compared with the pre- test before. So the two scores used as numerical data to measure the effect of anagram on students' vocabulary.

**2.4 Data analysis**

The data collected through the test analyzed quantitatively. Percentage score, mean score, standard deviation, and t-test are used to justify the students' scores at pre-test and post-test. The researcher used Statistical Product and Service Solution (SPSS) software version 22.0 for windows.

**3. RESULT AND DISCUSSION**

**3.1 Result**

- a. The Result of Students Vocabulary Pre-Test and Post-Test of Experimental Class
  - 1) The result of pre-test of experimental class

The result of students vocabulary pre-test scores at the class XI MIA 5 in SMA Negeri 4 Baubau as experimental class is presented in the following table:

**Table 1.** Descriptive Statistic Analysis of Students' pre-test scores

Statistics	
Mean	55.17
Median	55.00
Mode	60
Std. Deviation	10.866
Variance	118.075
Minimum	35
Maximum	80

Based on the table, it shows that the mean score of pre-test is 55.17, the median 55.00, the mode 60, the standard deviation 10.866, the variance 118.075, the minimum score 35 and the maximum score 80.

**Table 2.** Frequency distribution of students' pre-test scores of experimental class.

Score interval	Frequency	Percentage (%)	Category
81-100	-	-	Very Good
61-80	6	20%	Good
41-60	18	60%	Enough
21-40	6	20%	Poor
0-20	-	-	Very Poor
<b>Total</b>	30	100%	

Based on the table 2 above, it can be seen that in the pre-test there are no students or 0% who got scores in the range of 81-100 or very good category, 6 students or 20% who got scores in the range of 61-80 or good category, 18 students or 60% who got scores in the range of 41-60 or enough category, 6 students or 20% who got scores in the range of 21-40 or poor category and no students or 0% who got scores in the range of 0-20 or very poor category. It can be concluded that the average of students' vocabulary pre-test in the class XI MIA 5 is in enough category.

2) The Result of Post-Test of Experimental Class

The result of students vocabulary post-test scores at class XI MIA 5 in SMA Negeri 4 Baubau as experimental class is presented in the following table:

**Table 3.** Descriptive Statistics Analysis of Students' Post-Test scores

Statistics	
Mean	72.83
Median	70.00
Mode	70
Std. Deviation	9.973
Variance	99.454
Minimum	60
Maximum	100

From the table above, it shows that the mean score of post-test is 72.83, the median 70.00, the mode 70, the standard deviation 9.973, the variance 99.454, the minimum score 60 and the maximum score 100.

**Table 4.** Frequency Distribution of Students' Post-Test Scores of Experimental Class

Score interval	Frequency	Percentage (%)	Category
81-100	6	20%	Very Good
61-80	20	67%	Good
41-60	4	13%	Enough
21-40	-	-	Poor
0-20	-	-	Very Poor
<b>Total</b>	30	100%	

Based on the table 4 above, it can be seen that in post-test there are 6 students or 20% who got scores in the range of 81-100 or very good category, 20 students or 67% who got scores in the range of 61-80 or good category, 4 students or 13% who got scores in the range of 41-60 or enough category, no students or 0% who got scores in the range of 21-40 or poor category and also no students or 0% who got scores in the range of 0-20 or very poor category. It can be concluded that the

average of students' vocabulary post-test in class XI MIA 5 is in good category.

b. The Result of Students Vocabulary Pre-Test and Post-Test of Control Class

1) The Result of Pre-Test of Control Class

The result of students vocabulary pre-test score at class XI MIA 1 in SMA Negeri 4 Baubau as control class is shown in the following table :

**Table 5.** Descriptive Statistics Analysis of Students' Pre-Test Scores

Statistics	
Mean	47.50
Median	50.00
Mode	50
Std. Deviation	12.916
Variance	166.810
Minimum	20
Maximum	75

From the table, it shows that the mean score of pre-test is 47.50, the median 50.00, the mode 50, the standard deviation 12.916, the variance 166.810, the minimum score 20 and the maximum score 75.

**Table 6.** Frequency distribution of students' pre-test scores of Control class.

Score interval	Frequency	Percentage (%)	Category
81-100	-	-	Very Good
61-80	3	10%	Good
41-60	18	60%	Enough
21-40	7	23%	Poor
0-20	2	7%	Very Poor
<b>Total</b>	30	100%	

Based on the table 6 above, it can be seen that in pre-test there are no students or 0% who got scores in the range of 81-100 or very good category, 3 students or 10% who got scores in the range of 61-80 or good category, 18 students or 60% who got scores in the range of 41-60 or enough category, 7

students or 23% who got scores in the range of 21-40 or poor category and 2 students or 7% who got scores in the range of 0-20 or very poor category. It can be concluded that the average of students' vocabulary pre-test in class XI MIA 1 is in enough category.

## 2) The Result of Post-Test of Control Class

The result of students vocabulary post-test score at class XI MIA 1 in SMA Negeri 4 Baubau as control class is illustrated in the following table:

**Table 7.** Descriptive Statistic Analysis of Students' Post-Test Scores

Statistics	
Mean	56.83
Median	60.00
Mode	60
Std. Deviation	11.408
Variance	130.144
Minimum	25
Maximum	80

Based on the table, it shows that the mean score of post-test is 56.83, the median 60.00, the mode 60, the standard deviation 11.408, the variance 130.144, the minimum score 25 and the maximum score 80.

**Table 8.** Frequency Distribution of Students' Post-Test Scores of Control Class

Score interval	Frequency	Percentage (%)	Category
81-100	-	-	Very Good
61-80	7	23%	Good
41-60	20	67%	Enough
21-40	3	10%	Poor
0-20	-	-	Very Poor
<b>Total</b>	30	100%	

Based on the table 8 above, it can be seen that in pretest there are no students or 0% who got scores in the range of 81-100 or very good category, 7 students or 23% who got scores in

the range of 61-80 or good category, 20 students or 67% who got scores in the range of 41-60 or enough category, 3 students or 10% who got scores in the range of 21-40 or poor category and 0 students or 0% who got scores in the range of 0-20 or very poor category. It can be concluded that the average of students' vocabulary post-test in class XI MIA 1 is in enough category.

## c. Hypothesis Testing

Based on the criteria of hypothesis that if  $t_{count} < t_{table}$  or  $(sig.(2-tailed)) > 0.05$ , the null hypothesis ( $H_0$ ) is accepted. If  $t_{count} > t_{table}$  or  $(sig.(2-tailed)) < 0.05$ , the alternative hypothesis ( $H_a$ ) is accepted. Referring to the result of the hypothesis testing above,  $t_{count} 57.44 > t_{table} 2.405$  and the probability value  $(sig.(2-tailed)) 0.000 < 0.05$ , It means that  $H_a$  is accepted and  $H_0$  is rejected. It can be concluded that there is a significant effect of using anagram game in improving students' vocabulary mastery at eleventh grade of SMA Negeri 4 Baubau.

## 3.2 Discussion

The use of game in learning languages was more effective than using conventional method. It is supported by [8] that game is to mean an activity which is pleasant and engaging, often challenging, and an activity in which the learners play and usually interact with others. Game also can help students in providing the natural situation of the use of words.

This research was in line with previous researchers by Maimunah and Bachtiar [10], who found that anagram game can improve the students' vocabulary achievement and the class situation. The class becomes enjoyable, interested, and fun. The situation is expected to make the students keep motivated during the learning process. Having interest and feeling happy in learning are some factors that can influence the students' achievement. Thus, it was confirmed the implementation of anagram game in teaching and learning process has a positive effect on the students' achievement, because they can study vocabulary easily. It

can be done because by fun learning, information can be understood and maintained well. The description above implies that the game can offer fun situation for the learner, so that they can learn better. Consequently, they can improve their vocabulary through the implementation of anagram game.

#### 4. CONCLUSION

Based on the result and discussion it can be concluded that the use of anagram game can affect and improve students' vocabulary mastery. This can be seen from the result of the mean score of pre-test is 55.17 and the result of mean score of post-test is 72.83. Based on the result of data analysis, there is a significant improvement between students' pre-test and post-test scores in the experimental class. Besides, the inferential statistic analysis obtains that  $t_{count} 57.44 > t_{table} 2.405$  and the probability value (sig.(2-tailed))  $0.000 < 0.05$ . It means that  $H_a$  is accepted and  $H_0$  is rejected. Thus, it can be concluded that there is a significant difference of students' vocabulary scores in pre-test and post-test taught by using anagram game at the eleventh grade of SMA Negeri 4 Baubau.

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