

# Investigating the Effectiveness of Anagram Technique on Students Vocabulary Mastery

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Abstract: This research aims to get empirical evidence on the effectiveness of Anagram technique on students' vocabulary. A quasi - experimental design was used as the method of the study in which 72 students of the eight grades of one Islamic Junior High School were chosen as the sample. The instrument of this study was tests divided into pre-test and post-test. The result of the analysis shows that there was a positive effect of Anagram technique on students' vocabulary. Moreover, the Cohen's *d* formulation also proved that Anagram technique gave moderate effect size on students' vocabulary.

## 1 INTRODUCTION

Language becomes the most important thing in human life. Because we as humans need an interaction where we use the language to communicate. Since English is an international language, people all over the world needed to learn English. In Indonesia English is taught in elementary up to university level. But in fact, even though English is taught for a long time period, most of the people are still confused to respond in English. One of the obstacles in responding in English is because the people are lack of vocabulary.

Vocabulary is defined as the words that are used by people, both in oral or written forms for communicating (Hanson & F.M. Padua, 2011). Vocabulary is one of the most crucial elements in a language. Because without vocabulary we cannot deliver a message, especially in English that becomes a foreign language in Indonesia. Vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read, and write (Richards, 2002). Some of the people think that grammar is more important than vocabulary. For instance, people will not talk in English just because they are afraid to take a risk with wrong grammar. Since the learning of a language is most commonly identified with acquiring mastery of its grammatical system, it is not at all surprising that most textbooks have a grammatical or 'structural' organization. As a result,

the introduction of vocabulary that could be used by the learner in everyday conversations is often omitted or neglected (Mollica, 2001). Whereas in learning English, vocabulary plays more important role than grammar. As it is stated by Thornbury that, "without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (Thornbury, 2002).

Teaching vocabulary is not easy, it needs a technique to make the students eager to learn and easy to understand. If a teacher cannot provide fun and meaningful learning, the students will face the difficulties to catch the material because English is still unfamiliar for some of them. If we see the problem nowadays, many students are lack of vocabulary. They just remembered the word for a while and did not save it in their long-term memory. As the result, the students understand what the speaker say but they do not know how to respond it. It shows that they do not have enough vocabulary in their mind.

This is also the case in most of Indonesian schools. Based on the observation in one of Islamic junior high school in Jakarta, the writer found that several students cannot reach the standard minimum score in English subject. The students must get 73 in English. In fact, the average score of the eighth-grade students is 65-70 in each class. While learning English, the students cannot achieve some of indicators of the subject. The most difficult indicator is the students did not understand what the passage about because they lack of vocabulary. In addition,

the teacher still uses monotonous technique in teaching English that make the students bored in learning. He just asked the students to read the text individually and answer some questions. Also the teacher only uses text in student worksheet or workbook that its performance does not support the students' interest. So to solve this problem the teacher should be creative to provide fun and meaningful teaching and learning process.

Through a proper technique, the students will feel relax and enjoy while learning and it can make them easier to understand the material. It also gives the students unconsciously learning, so they learn without they realized it. As Harmer (1991) state that teaching vocabulary must be interesting and the teacher should be creative to create fun and meaningful learning because vocabulary is very essential in a language. There are so many games to teach vocabulary, and one of them is anagram. Anagram is a word or phrase created by re-arranging the letters of another word or phrase, in which every letter in the original is used in the creation of the new phrase (Rosadi, 2017). It facilitates the students to make a new word by looking the dictionary based on the word or phrase given. So the students will know the new vocabulary after re-arranging the word. This game can be used to teach or review the vocabulary properly (Mollica, 2001).

Knowing the advantage of the game, the writer wants to conduct a research on the effect of anagram technique on students' vocabulary mastery at the eighth-grade students of MTsN 13 Jakarta.

## 2 LITERATURE REVIEW

### 2.1 Definition of Vocabulary

Vocabulary is the knowledge of meaning of words that used to communicate effectively, both in oral and written forms (Hiebert & Kamil, 2005). The more vocabularies that are acquires by someone, the more he or she is able to understand the language in listening, speaking, reading, and writing.

### 2.2 Teaching Vocabulary

Teaching vocabulary must be interesting and the teacher should be creative to create fun and meaningful learning because vocabulary is very essential in a language. Harmer mentions in his book some of some techniques in teaching vocabularies such as realia, pictures, mime action and gesture,

contrast, enumeration, explanation, and translation (Harmer, 1991).

Realia technique is conducted by bringing the things that will be presented into the classroom. For example ruler, pen, pencil, ball, etc. The teacher holds up the object then say the word and then ask the students to repeat it. Not only the teacher should provide the things, but also the students also can bring their own thing into the class.

Pictures technique is conducted by showing a picture. The picture can be board drawings, wall pictures and charts, flashcards. Magazine pictures, or the teacher can simply draw a picture in the board.

Mime, action and gesture technique can be applied by acting out in front of the class the words that are taught. The words that are taught should can be acted out such as run, walk, sit, etc. This technique only can be implemented for beginner learners. The intermediate and advanced learners will not get interested in learning using this technique.

Contrast technique is conducted by showing the correlation of the words to explain the meaning of the words such as empty and full, cold and hot, small and big, etc. To make the students easily understand the concept of comparison, the teacher can draw pictures or even try to make a mimic of the words. This technique help the teachers to teach the antonym of the words that the students will learn two different words in the same time.

Enumeration technique can be implemented by explaining the words from the general into the specific words such as explaining about the fruit before explaining about an apple.

Explanation technique will be difficult at beginner and elementary levels because giving an explanation to the students about new words means giving them the explanation about the words that are also related to these new words. So this technique is better used for intermediate students. Moreover, the teacher also should give the explanation about what the words that are used in an informal form such as mate (friend)

Translation technique is quick and easy way to present the meaning of words but it is not without problems. In the first place it is not always easy to translate words, and in the second place, even where translation is possible, it may make it a bit too easy for students by discouraging them from interacting with the words.

Anagram technique is kind of word games that change the order of the letters of a word into another word or group of words change into another group of words or sentences are meaningful.

Based on some technique in teaching vocabulary that mention above, the teacher can apply the technique depend on the needs of the students. Whether the teacher wants the students more active (student centered) or the teacher that take over teaching and learning process (teacher centered). But whatever it is, the teacher should provide fun and meaningful learning because teaching vocabulary is different than teaching language skills such as listening, speaking, reading, and writing. If the teacher is not able to provide an interesting teaching and learning process, the students will be difficult to catch the lesson.

Besides the teaching technique, there are three important encouraging learning process that may lead to remember a word. They are noticing, retrieval and creative (Nation, 2001).

### 2.3 Anagram Technique

Anagram technique is a type of word play, the result of rearranging the letters of a word or phrase to produce a new word or phrase, using all the original letters exactly once' for example *orchestra* can be rearranged into *carthorse*.

Anagram is the first type of word game popular in Europe during the middle ages. Anagram art created by the Greek poet Lycophron. Before the era of computerization, anagram built using pen and paper from a combination of letters and experiment with variations.

By using this technique, the students will not be bored because this technique is appropriate to their characteristics which is they incline more interested to play, meanwhile anagram technique is a type of word play. Many words will be got through this technique. Automatically, this technique will increase students' vocabulary. Using this technique also help the students to get involved in classroom activities. Since this technique is fun and beneficial for the students, it will give the students opportunity to increase their English vocabulary.

### 2.4 Teaching Vocabulary using Anagram

Harmer (2002) stated that young children learn differently from older children, adolescents, and adult. In learning, young children more difficult to study because their mood tends to change every other minute. But on the other hand, they have more motivation to learn than adult. So, the teacher should be more creative in selecting activities in learning process. Furthermore, the teacher should provide a

great variety of interesting activity and exercise. Using Anagram technique in teaching vocabulary more effective for helping the students in learning, they would be easier in recognizing new words and make the lesson more interesting.

There are three types of transpositions (letter re-arrangement) in Anagram. One of them is Random Anagram where the letters of an English word being scrambled into a random pattern and the players must rearrange the original word. The rules of Anagram Game as follows:

1. Students are divided into 4 groups where each group consists of ten students.
2. Student gets some words consists of 4-6 letters.
3. Student must arrange the letters that were randomized into a new word.
4. Student uses all the letters to form a 1 or 2, even 3 new words.

Example:

- a. Malp : lamp, palm
- b. Tapel : petal, plate, pleat
- c. Elam : male, meal, lame
- d. Erosh : horse, shore
- e. Balett : battle, tablet

5. Group with a most new word is the winner.

There are three criteria, or rules, that must be met in order to classify something as an Anagram:

1. The letters of a word or phrase must be re-arranged.
2. A new expression must be created.
3. The letter of the original must be used in the new expression.

### 2.5 Advantages of Anagram

In applying a technique for teaching, there is always an advantage and a disadvantage. We cannot say that one technique is the best overall, because it depends on the learners that we teach. What we should look carefully is whether or not a technique suitable for the learners. Kumara stated that Anagram is considered as an effective, enjoyable and interesting way to teach vocabulary because it can give the students enjoyment or challenge in studying language and encourage them to look carefully at words, students can practice to form other words from the given clues, match words with definition, provide spelling practice, show the students how the letters of many words can be manipulated to form other words, emphasize the importance of letter position in relation to word meaning.

Anagram technique can motivate the students and make them interested in learning vocabulary English for junior high school, the students also know about the new words by using anagram, they can found the new word by themselves. In addition the students can become active when they suggest coming front of the class. They become brave to spell the word and getting the meaning.

Anagram technique also helps the students to work in team. They will not work individually because they want to get the best score to be the winner. Collaborative learning will help the learners to enhance their social intelligence.

Moreover, applying this technique means to help students to raise their vocabulary. Anagram technique is a technique that can make the students have capability to develop their vocabulary.

### 2.6 Disadvantages of Anagram

The disadvantage Anagram technique is the noise cannot be avoided. This technique is student-centered which make all the students get involved, it will be so noisy.

Anagram technique cannot make a new word form except from word itself, and it limit teacher expectation. This technique needs a dictionary for beginner, because without a dictionary they cannot find another word form. An activity which is chosen by the teacher will have its advantages and disadvantages. Since Anagram technique has many advantages than disadvantages. Therefore, before applying Anagram technique, it is a need for the teacher to adjust with the topic.

## 3 METHODOLOGY

Quasi experimental design was used in this study in which two classes are involved. One class assigned as an experimental class, and the other one as control class. The students in both classes were given pre-test and post-test. Pre-test was used to decide which group belongs to control and/or experimental class. While post-test was used to see the effect of Anagram technique on students' vocabulary mastery.

Purposive sampling was used as a sampling technique where seventy two (72) students of the eighth grade of one Islamic junior high school in Jakarta, Indonesia were chosen as the sample of the study. Test consisted of thirty (30) multiple choice questions was used as the instrument and T-test was used to analyze the data. In addition, Cohen formula

was used to see the effect size level of the Anagram technique on students' vocabulary mastery (Cohen, 2007).

## 4 FINDINGS AND DISCUSSION

### 4.1 The Data of Experimental Class

The data were collected from students' pre-test score which was conducted before the researcher implemented anagram technique and students' post-test score which was conducted after the researcher implemented anagram technique. The data is presented in table 1.

Table 1: Students' Pre-test, Post-test and Gained Score of Experimental Class.

Student	Pre- test score	Post-test score	Gained score
1	61	73	12
2	64	76	12
3	67	73	6
4	61	70	9
5	58	67	9
6	58	79	21
7	61	76	15
8	52	67	15
9	61	73	12
10	61	79	18
11	52	79	27
12	55	70	15
13	61	76	15
14	58	70	12
15	61	73	12
16	67	76	9
17	55	73	18
18	70	82	12
19	67	70	3
20	52	67	15
21	58	76	18
22	55	73	18
23	64	82	18
24	61	76	15
25	64	73	9
26	58	79	21
27	70	76	6
28	58	70	12
29	61	76	15
30	73	85	12
31	70	82	12
32	67	76	9
33	58	79	21
34	67	82	15
35	70	85	15
36	64	79	15
Σ	2220	2718	498
Mean	61.66	75.5	13.83

The data shows the score of 36 students in VIII-I, the mean score of pre-test was 61.66, the lowest score of pre-test was 52 and the highest score was 73. Meanwhile, the mean score of post-test was 75.50, the lowest score of post-test was 67 and the highest score was 85. Besides the mean score of gained was 13.83 with the minimum gained score was 3 and the maximum gained score was 27. It can be known that there was significant difference in the pre-test and post-test score of experimental class.

#### 4.2 The Data of Controlled Class

The control class is a class in which they did not taught by using anagram technique. The data were collected from students' pre-test score and post-test score. The data is presented in table 2.

Table 2: Students' Pre-test, Post-test and Gained Score of Controlled Class.

Student	Pre- test score	Post-test score	Gained score
1	67	73	6
2	64	70	6
3	67	73	6
4	64	76	12
5	70	73	3
6	67	76	9
7	70	76	6
8	67	73	6
9	58	70	12
10	64	73	9
11	67	70	3
12	70	79	9
13	61	76	15
14	73	79	6
15	70	76	6
16	61	64	3
17	64	67	3
18	61	70	9
19	64	70	6
20	67	76	9
21	61	67	6
22	64	73	9
23	70	76	6
24	64	70	6
25	67	82	15
26	61	73	12
27	73	79	6
28	64	67	3
29	67	76	9
30	61	76	15
31	58	67	9
32	61	70	9
33	58	70	12
34	61	73	12

Student	Pre- test score	Post-test score	Gained score
35	61	70	9
36	55	64	9
Σ	2322	2613	291
Mean	64.5	72.58	8.08

The data shows the score of 36 students in VIII-H, the mean score of pre-test was 64.5 the lowest score of pre-test was 55 and the highest score was 73. Meanwhile, the mean score of post-test was 72.58 the lowest score of post-test was 64 and the highest score was 82. Besides the mean score of gained was 8.08 with the minimum gained score was 3 and the maximum gained score was 15.

The data shows the difference between students' score in experimental and control class that the score of experimental class which was taught by using anagram technique was higher than the score of control class which learn with conventional technique. The progress of both classes can be seen in Figure 1.

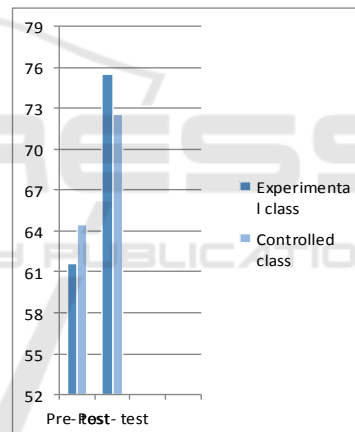


Figure 1: The Difference between Students' Score in Experimental and Control Class.

In the description of the data which was taken from 36 students of experimental class, Table 1 showed the description of the experimental class score which has the mean score of pre-test 64.5 before anagram technique was implemented. After anagram technique was implemented in the class, the mean score of post-test was 76. Meanwhile, Table 2 showed the description of the control class score which has the mean score of pre-test 61.66 and the mean score of post-test was 75.5. It means that both classes have increased in the post-test score. Yet, the experimental class got higher score than the control class. Based on the statistical analysis, the increasing point of the experimental class was 13.83 points; from 61.66 to 75.5. As for the control class,

it increased 8.08 points; from 64.5 to 72.58. It means that the experimental class had more significantly increasing points rather than the control class.

The result of T-test shows that  $t_{\text{value}}$  is 2.684 with the Sig. (2-tailed) 0.009. Then  $t_{\text{value}}$  is compared to the  $t_{\text{table}}$  to know whether anagram technique give significant effect on students' vocabulary. The  $t_{\text{table}}$  is taken from the requirement which has been standard in analyzing the data. The  $t_{\text{table}}$  shows 1.994 with 70 as the degree of freedom (df) in the significance level 0.05. The comparison shows that  $t_{\text{value}}$  (2.684) >  $t_{\text{table}}$  (1.994) and the Sig. (2-tailed) value of the post-test score was lower than  $\alpha$ ,  $0.009 < 0.05$ . It means there was significant effect of anagram technique on students' vocabulary mastery. Moreover, the effect size of anagram technique was 0.63. Therefore, the effect size level of this research was moderate.

From the data analysis of the research, it can be seen that anagram technique can give significant effect on students' vocabulary because the score of students' vocabularies after being taught by using anagram technique is higher than before the researcher gave the treatment. Furthermore, this research supported the previous research that anagram technique is effective to increase student's vocabulary. In addition, it can promote the learning process which facilitates students to increase their vocabulary. It helps them to know more vocabulary in English, understanding the meaning, and also having motivation and enjoyment in learning English.

In summary, using anagram technique is effective to improve students' vocabulary, especially for the eighth-grade students at MTsN 13 Jakarta.

## 4 CONCLUSION

Based on the findings, it is concluded that anagram technique has medium effect on students' vocabulary at eighth grade students of one Islamic junior high school in Jakarta. It can be seen from the data with the statistical hypothesis showed that the mean score of experimental class after being taught by anagram technique was 75.5 and it was higher than the mean score before using anagram technique; it was 61.66. The data analysis, moreover, showed that sig. 2-tailed ( $\rho$ ) <  $\alpha$ ;  $0.009 < 0.05$ . It means that null hypothesis ( $H_0$ ) was rejected and alternative hypothesis ( $H_a$ ) was accepted. Therefore, anagram technique shows the medium effect in improving the students' vocabulary. It is also supported by the effect size of anagram

technique on this research; it was **0.63**. It shows that it has medium effect size level.

In summary, this research shows that using anagram technique can affect students' vocabulary at the eighth-grade students of one Islamic junior high school in Jakarta.

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