

THE EFFECT OF SCRAMBLE METHOD ON STUDENTS' ACHIEVEMENT IN LEARNING VOCABULARY

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ABSTRACT

The objective of this research was to find out the significant effect of scramble method on students' achievement in learning vocabulary. Experimental design was used as the research design. The population of this research was taken from the eighth grade students of SMP Al Washliyah 8 Medan. There were 7 parallel classes with total number of 231 students. Each class consisted of 33 students. The sample was taken by applying cluster random sampling with lottery technique. Class VIII¹ consisted of 33 students was selected as the experimental group and class VIII³ consisted of 33 students was selected as control group. The total sample was 66 students. The experimental group was taught by applying scramble method, while the control group was taught by applying conventional method. Multiple choice tests containing vocabularies were used as the instrument for collecting the data. The mean score of experimental and control group were then compared and calculated. The value of both groups then was tested using t-test formula. It was obtained that that t_{observed} value was higher than t_{table} value ($7.25 > 1.66$) at level of significance $\alpha=0.05$ with degree of freedom $df=58$. Based on the determined hypothesis, it meant that H_a was accepted and H_o was successfully rejected. Thus, it was concluded that there was a significant effect of scramble method on students' achievement in learning vocabulary.

Keywords: word games, scramble method, vocabulary

ABSTRAK

Tujuan penelitian ini adalah untuk mengetahui efek signifikan metode scramble terhadap pencapaian pembelajaran kosakata. Desain eksperimen digunakan sebagai desain penelitian. Populasi penelitian ini diambil dari siswa kelas delapan SMP Al Washliyah 8 Medan. Ada 7 kelas parallel dengan jumlah seluruhnya 231 siswa. Setiap kelas terdiri dari 33 siswa. Sampel diambil dengan mengaplikasikan sampel kelas acak dengan teknik undian. Kelas VIII¹ yang terdiri dari 33 siswa terpilih sebagai kelompok eksperimen dan kelas VIII³ terdiri dari 33 siswa terpilih sebagai kelompok kontrol. Jumlah seluruh sampel penelitian ini adalah 66 siswa. Kelompok eksperimen diajar menggunakan metode scramble, sementara kelompok kontrol diajar menggunakan metode konvensional. Tes pilihan berganda yang berisi kosakata digunakan sebagai instrumen pengumpulan data. Skor rata-rata kelompok eksperimen dan kelompok kontrol kemudian dibandingkan dan dihitung. Nilai kedua kelompok kemudian diuji dengan menggunakan rumus uji-t. Diperoleh bahwa nilai t_{hitung} lebih tinggi dari nilai t_{tabel} ($7,25 > 1,66$) ada level signifikan $\alpha=0,05$ dengan derajat kebebasan $df=58$. Berdasarkan hipotesis yang telah ditentukan, hal ini berarti bahwa H_a diterima dan H_o ditolak. Dengan demikian, disimpulkan bahwa ada efek yang signifikan dalam menggunakan metode scramble terhadap pencapaian pembelajaran kosakata.

Kata kunci: permainan kata, metode scramble, kosa kata

A. Introduction

One of the most important elements in English is vocabulary. Vocabulary is an inseparable part of any language learning process. It would be impossible to learn a language without vocabulary. That is why to be able to master the four skills, students must master vocabulary first. Emor (2012) says vocabulary is one of the important factors in all language learning because students must continually learning words as they learn structure and practice sound system in addition. Webster (2002) defines vocabulary as a list of words and often phrases, abbreviation, inflectional form, etc. usually arranged in alphabetical order and defined or otherwise identified, as in a dictionary and glossary. Richards and Schmidt (2002) says vocabulary is the core component of language proficiency and provides much of the basic for how well learners speak, listen, read, and write. Based on those various definitions, it can be concluded that vocabulary is set of words in a language usually arranged in alphabetical order, with the explanation of their meanings used in particular kind of work.

Fahrizal (2019) revealed two factors as the cause of problems in learning vocabulary. First is from the students their self and second is from the teacher. Some students prefer not to participate in the teaching learning process and just chat or lay with other friends, though the teacher has reminded and scolded them to pay attention. The teacher in this case only does action such as asks the students to work on assignments written on student's book and responses the students if they ask more explanation on some difficult assignments. These make students lack of ability to pronounce, remember word meaning, spell, and use words properly. While Umasugi, Hanapi, Bugis, and Handayani (2018) explain that recent research shows that vocabulary instruction may be problematic because of the teacher's unconfident feeling to apply which best practice in vocabulary instruction is. Umasugi et al. (2018) also add that the use of appropriate method can be one solution in teaching vocabulary easily, pleasantly, and effectively.

The problems in this research were found when conducting a teaching practice at SMP Al Washliyah 8 Medan of the eighth grade students. Most students still had difficulties in learning vocabulary. They were bored in learning vocabulary. They did not pay attention to the teacher's explanation during teaching learning process. Moreover, they had difficulties in remembering the vocabularies and their meaning. Therefore, they did not have enough interest in learning vocabulary. When the students were questioned about this situation, most of them said it was because of the teacher's way of teaching. The teacher did not use suitable method in teaching vocabulary. Thus, learning vocabulary needs interesting method and strategy in order to make the students enjoyable in teaching learning process.

There are many interesting methods or strategies to assist students in learning vocabulary. One of them is using scramble method. Umasugi et al (2018) mention that one of games that is possible to implement to improve students' interest in learning is the scramble words game and assume that scramble is effective to make students interest and enjoy the studying and motivate the students to improve their vocabulary. Suparno in Dames (2012) states that scramble method is one of the language games. Basically, the language game is an activity to acquire specific skills in a way of encouraging. According to Ariseno (2014) scramble learning model is one of a modern learning which is focused on the student's activeness. Komalasari (2010) as well states that scramble learning model invites the students to seek answers of questions or a match of concepts creatively by arranging the letters which firstly are set randomly. It builds an answer or a meaning of concept. In addition, Budiati and Wagino (2015) states that through scramble students can be trained to arrange the jumble words, sentences, or discourse to be a meaningful arrangement which is perhaps better than the original arrangement. The game is also able to optimize the students to think more creative to define and construct a new thing or structure so that it can increase knowledge and understanding because students are active in the game. The accuracy and speed of thinking in answering the

questions become one of the key games in scramble learning method. Therefore, it can be assumed that scramble method is a form of random game uses question exercise land can be used within group.

Considering the facts above, thus, this research was conducted under the objective to find out the significant effect of scramble method on students' achievement in learning vocabulary of the eighth grade at SMP Al Washliyah 8 Medan.

B. Research Method

This research was conducted at SMP Al Washliyah 8 Medan, one of private junior high schools in Medan. The research design applied was experimental research design with two groups. One as experimental group was taught by using scramble method while the other as control group was taught by conventional method.

The population in this research was the eighth grade students which consisted of 7 parallel classes. Each class consisted of 33 students and so the total population was 231 students. Arikunto (2006) states that for the estimation, if the number of population is less than 100, it is better to take all and if the number of population is more than 100, the sample can be taken 10-15 % or 20-25% or more of the population. Thus, in this research, the population was the whole students of the eighth grade. Out of 7 classes, two classes were randomly selected using lottery technique to decide the research sample. The names of the 7 classes were written on small pieces of papers and took out two roll of the paper. It was obtained that class VIII¹ consisted of 33 students as the experimental group and class VIII³ consisted of 33 students as the control group. So, the total number of the sample was 66 students.

The data for this research were collected through several techniques as follows:

1. Pre-test

The pre-test was administered before treatment. The test was used to find out the students' preliminary achievement. Both experimental and control groups were given the same test. They were asked to write vocabulary based on the given topic.

2. Treatment

After administering the pre-test, the students were given the treatment. The experimental group received the treatment using scramble method while the control group received conventional method. The procedures in giving the treatment to the experimental group were as follows:

- the teacher gave an example of images printed on paper;
- the teacher explained the part in the images;
- the teacher asked the students about people, place, and thing based on the images.

3. Post-test

Post-test was given after administering treatment. The objective was to know the students' achievement after being treated.

The mean score of pre-test and post-test of both groups were compared to find out the significance difference of using scramble method on the students' achievement in learning vocabulary.

In collecting the data, multiple choice tests were used as the instrument in this research. The question given consisted of 10 questions. The time given to complete the test was 45 minutes. The test was scored 10 points for each correct answer. So, the total score of all correct answer was 100 points.

To know the differences between the two groups, it was applied the comparative analysis technique which compared the Mean (M) of the two groups using the t- test formula as follow:

$$t = \frac{Ma - Mb}{\sqrt{\left(\frac{da^2 + db^2}{Na + Nb - 2}\right) \left(\frac{1}{Na} + \frac{1}{Nb}\right)}}$$

Notes:

Ma : The mean of experimental group

Mb : The mean control group

da : The standard deviation of experimental group

db : The standard deviation of control group

Na : The total numbers of experimental groups

Nb : The total number of control groups

C. Research Finding and Discussion

The research conducted revealed that the mean score of experimental group (Ma) was 28.6 and the mean score of control group (Mb) was 18.3 and these value with others were put together to obtain the t-observed.

$$\begin{aligned} \text{Ma} &= 28.6 \\ \text{Da2} &= 1155.37 \\ \text{Na} &= 33 \\ \text{Mb} &= 18.3 \\ \text{Db2} &= 1025.34 \\ \text{Nb} &= 33 \end{aligned}$$

Thus, the above values were put into the t-test formula as follow:

$$\begin{aligned} t &= \frac{\text{Ma} - \text{Mb}}{\sqrt{\left(\frac{\text{da}^2 + \text{db}^2}{\text{Na} + \text{Nb} - 2}\right) \left(\frac{1}{\text{Na}} + \frac{1}{\text{Nb}}\right)}} \\ t &= \frac{28.6 - 18.3}{\sqrt{\left(\frac{1155.37 + 1025.34}{33 + 33 - 2}\right) \left(\frac{1}{33} + \frac{1}{33}\right)}} \\ t &= \frac{10.3}{\sqrt{\left(\frac{2180.71}{64}\right) \left(\frac{2}{33}\right)}} \\ t &= \frac{10.3}{\sqrt{(34.07)(0.06)}} \\ t &= \frac{10.3}{\sqrt{2.04}} \\ t &= \frac{10.3}{1.42} \\ t &= 7.25 \end{aligned}$$

To obtain the validity of the test, Correlation Coefficient Point Biserial Formula was applied:

$$r_{pbis} = \frac{Mp - Mt}{St} \sqrt{\frac{p}{q}}$$

Notes:

- r_{pbis} = correlation coefficient point biserial
- Mp = the mean scores of sample who answered the correct item
- Mt = the mean of total score (average scores of all followers of test)
- St = standard deviation of the total score
- P = proportion of sample who answered the correct item
- q = 1-p

Then, the above formula was used to test the validity of the test as follows:

$$r_{pbis} = \frac{Mp - Mt}{St} \sqrt{\frac{p}{q}}$$

$$Mp = \frac{(79.33)}{20} = 3.96$$

$$Mt = \frac{(292)}{33} = 8.84$$

$$St = 1.39$$

$$P = \frac{20}{33} = 0.60$$

$$q = 1 - 0.60 = 0.4$$

$$\begin{aligned} r_{pbis} &= \frac{3.96 - 8.84}{1.39} = \sqrt{\frac{0.60}{0.4}} \\ &= 2.39 \times 1.22 \\ &= 2.91 \end{aligned}$$

To find out the significant effect of scramble method on students' achievement in learning vocabulary, the results of the test were calculated by using the Kuder Richardson Formula 21(KR 21) Formula as follow:

$$KR_{21} = \frac{K}{K-1} \left(1 - \frac{M(K-M)}{K-S^2}\right)$$

Notes:

- KR₂₁ = Coefficient Reliability
- K = The number of item in the test
- M = The mean of the test score
- S² = The variance of the score or the standard deviation of the test

According to Best and Khan (2002), the coefficient of (R) can be interpreted using the following criteria:

- 0.00-0.20 = Negligible
- 0.21-0.40 = Low
- 0.41-0.60 = Moderate
- 0.61-0.80 = Substantial
- 0.81-1.0 = High to very high

The calculation of KR 21 Formula is presented below.

$$\begin{aligned} M &= 8.96 \\ S &= 2.99 \\ K &= 15 \end{aligned}$$

$$\begin{aligned}r &= \frac{K}{(K-1)} \left(1 - \frac{M(K-M)}{K(S)^2}\right) \\r &= \frac{15}{(15-1)} \left(1 - \frac{8.96(15-8.96)}{15(2.99)^2}\right) \\r &= \frac{15}{14} \left(1 - \frac{8.96(6.04)}{15(8.94)}\right) \\r &= 1.07 \left(1 - \frac{54.11}{134.1}\right) = 0.40 \\r &= 0.64\end{aligned}$$

After obtaining all the values needed, then the final step was conducting the hypothesis testing. The hypothesis testing was aimed at showing the result of the analysis. In this research, t-observed value (7.25) was higher than that of t-table value (1.69) at level of significance $\alpha=0.05$ with degree of freedom (df)=58. It can be written as the following:

$$t\text{-obs} > t\text{-table} (\alpha=0.05) \text{ with } df=58$$

$$7.25 > 1.69 (\alpha=0.05) \text{ with } df=58$$

The above equation meant that the alternative hypothesis (H_a) was accepted and the null hypothesis (H_o) was rejected since the t-observed was higher than t-table.

As stated previously, the objective of this research was to find out the significant effect of scramble method on students' achievement in learning vocabulary of the eighth grade at SMP Al Washliyah 8 Medan which was originally implemented in September during academic year of 2018-2019. This research was conducted by using experimental research design which involved two groups. The experimental group was taught by applying scramble method, while the control group was taught by applying conventional method. Scramble method was applied to the experimental group to help the teacher to design teaching material. It could be proved from the mean scores obtained by the students where the experimental students got higher scores than the scores of control group. Based on the calculation, the mean score of the experimental group was higher than that of control group. The difference was tested by using t-test formula which showed that the t-obs value (7.25) was higher than t-table value (1.69). Thus, this research concluded that there was a significant effect of scramble method on students' achievement in learning vocabulary.

The result in this research was the same with other previous researches that using

scramble to teach vocabulary can affect students' achievement. Umasugi et al (2018) using scramble game intended to find out the improvement of students' vocabulary and to find out the motivation between the pre-test and post-test of one group experimental design. The data were analyzed using descriptive statistics and inferential statistics and obtained the result that the use of scramble game in teaching vocabulary improved the students' vocabulary. This research finally concluded that scramble game was effective in improving students' vocabulary and interest to learn vocabulary. Research by Fahrizal (2019) aimed to investigate the effect of scramble game on the seven grade students' vocabulary mastery. The data obtained were analyzed by applying t-test formula and indicated that the value of t-counted was higher than t-table or $4.33 > 2.002$ and concluded that there was effect of scramble game on students' vocabulary mastery.

Therefore, comparing all the research results implemented concerning scramble on students' vocabulary mastery, it all proved the effectiveness of scramble method to influence the students' achievement in vocabulary mastery. Not only the quantitative achievement but also the qualitative as well such as the feeling of enjoyable learning, the easier in understanding and memorizing the vocabulary and the meaning can be noted as the additional result. The students were actively engaged in class during the implementation of scramble method. Umasugi et al (2018) also explain that the result of questionnaire revealed that the students were interested in scramble game because it helped the shy students and liberated students with difficulty in vocabulary. In addition, using scramble was fun and most students agreed that the enjoyment leads to better learning.

D. Conclusion and Suggestion

The conclusion of this research was drawn based on the data analysis which showed that t-observed was higher than t-table ($7.25 > 1.69$) at the level of significance $\alpha=0.05$ with degree of freedom (df)=58. It meant that the alternative hypotheses (H_a) was accepted and the null hypotheses (H_o) was rejected. So,

there was a significant effect of scramble method on students' achievement in learning vocabulary.

As addition of this research result, it is suggested that English teachers should build a favorable atmosphere at times of teaching-learning process because a conducive condition in teaching would become one access to get the success of material to be taught. English teachers should apply this scramble method as an alternative method in learning vocabulary because this method can motivate the students to achieve satisfying results and students will be more active in the class when they are taught by using scramble method.

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