

Improving the Students Reading Comprehension by Using Graphic Organizer at the Second Grade Students of SMP Universitas Muhammadiyah Makassar

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ABSTRACT

The problem statement of this research is “**Can the use graphic organizer improve the students reading comprehension at the second grade students of SMP universitas muhammadiyah makassar?**” The objective of the research is to find out whether or not the use of graphic organizer can improve the reading comprehension of the second grade students of SMP universitas Muhammadiyah Makassar. This research employed Quasi-Experimental method that applied experimental and control class. The population was the second grade students of SMP Universitas Muhammadiyah Makassar 2019-2020 academic years. Total number of population was 40 students, they are class VIII. A as experimental class consisted of 20 students and class VIII. B as control class consisted of 20 students. The instrument used in this research was graphic organizer method.

The result of this research showed that the experimental group got mean score (69,5) while the control class group got (57,5). This showed that there was improvement the students who were taught by using graphic organizer method. The result of the t-test value (4,379) was higher than t-table (1,685), this means that H_1 was accepted and H_0 was rejected. The students who taught by using graphic organizer were better than conventional strategy.

Keyword : Graphic Organizer, Reading Comprehension

ABSTRAK

Tujuan penelitian ini adalah untuk mengetahui apakah metode graphic organizer dapat meningkatkan pemahaman membaca siswa di kelas VIII SMP Universitas Muhammadiyah Makassar. Metode yang digunakan dalam penelitian ini adalah metode quasi experimental dengan dua kelas sampel yaitu kelas eksperimen dan kelas kontrol. Populasi adalah siswa kelas VIII di SMP universitas Muhammadiyah Makassar tahun ajaran 2019-2020. Total populasi sebanyak 40 orang, kelas VIII A di kelas eksperimen sebanyak 20 siswa dan VIII B di kelas

kontrol sebanyak 20 siswa. Instrument yang digunakan dalam penelitian adalah graphic organizer.

Hasil analisa data menunjukkan bahwa pemahaman membaca siswa meningkat. Itu ditunjukkan dengan skor rata rata kelas eksperimen adalah (69,5) lebih tinggi dibandingkan dengan kelas kontrol yang mendapat skor rata rata (57,5). Setelah menganalisa data dengan menggunakan rumus tes, hasil dari nilai t-test value adalah (4,379) lebih tinggi dari t-table yang hanya (1,685). ini menunjukkan bahwa H_1 diterima dan H_0 ditolak, ini menunjukkan bahwa penggunaan graphic organizer dapat meningkatkan pemahaman membaca siswa kelas VIII SMP Unismuh Makassar.

Kata Kunci : Graphic Oragnizer, Pemahaman Membaca.

Introduction

English is one of international z role in accessing information of development of science and technology.

Procter (1986) stated that as English is evidently spoken by two-third of people all over the world, so English has become a compulsory part of the school curriculum.

In Indonesia, English is taught from the fourth year of elementary school to university level. The length of time spent in learning English is not guarantee to successfull learning. In learning English, it is necessary to know that there are four skills to be mastered which cover reading, listening, speaking, and writing. They are important factors in the process of English teaching and learning. In this sense the writer does not discuss all language skills but she limit to discuss reading especially on reading comprehension.

Widdowson (1979) state that reading is the process of getting information via printed material. Reading also is an active process of identifying important ideas and comparing, evaluating, applying them. Therefore in reading someone has try to comprehend the main idea about what he/she has read. Without comprehending main idea, it will be very difficult to understand what she/he has read.

Most of the students have low/poor achievement in comprehending reading text. This is affected by the low interest of the student toward reading because the reading text/material that is not interesting for the students.

Halim in nurbaya (2005:1) in his research states that 60% student from senior high school encounter problem in comprehending English text.

Based on the observation and the teacher's information which is required that such problem above is also faced by the second year students of SMP Universitas Muhammadiyah Makassar. They are very difficult to comprehend the reading text material. It is also indicated from the result of the students' reading pre-observation that the mean score is 45.9 from 20 students. It means that they were still low if we compared with the data by Dirjen Pendidikan Dasar dan Menengah 2014.. That's why the teacher should find new strategy which make the student interested in reading. One of strategy in teaching reading especially for reading comprehension is graphic organizer.

Based on the statement above, the research conducted a research under the title **"Improving the Students Reading Comprehension by Using Graphic Organizer at the Second Grade Students of SMP Universitas Muhammadiyah Makassar"**

Related to the background the researcher formulated a research question as follow ; *"Can the use graphic organizer improve the students' reading comprehension at the second grade students of SMP Universitas Muhammadiyah Makassar?"*

Research Method

1. Research Design

The research method used in this research is quasi-experimental design. this method used two classes as sample namely experimental class and control class. The research formula presented as follows :

$$E = O_1 X_1 O_2$$

$$C = O_1 X_2 O_2$$

Where E : experimental class

C : control class

O_1 : pre-test

O_2 : post- test

X_1 : treatment of experimental class

X_2 : treatment of control class

2. Population and sample of the research

This part explained about the population and the sample of the research. They are :

a. Population of the research

The population of this research is the second grade students of SMP Universitas Muhammadiyah Makassar, first semester of the 2019-2020 academic year.

b. Sample of the research

In this research, the researcher took two class as sample namely experimental class and control class. To determined both of class, the researcher used cluster random sampling technique. The researcher took class VIII.A as experimental class of this research with 20 total number of students and researcher took class VIII.B as control class with 20 total number of students.

3. Research variables and operational definition

This part explained about the research variable and operational definition of it. They are :

a. Research variable there were two variable involved in this research, namely dependent variable and independent variables.

1. The dependent variable is the students' reading comprehension at the second grade students of SMP Universitas Muhammadiyah Makassar.
2. The independent variable is the use of graphic organiser in teaching reading at the second grade students of SMP Universitas Muhammadiyah Makassar .

b. Operational definition

1. Reading comprehension is the ability that the researcher want to improve where it is an active thinking proses which not only depends on comprehension skill.
2. Graphic organizer is a strategy of reading that the researcher applied in the classroom to improve the student reading comprehension.

4. Instrument of the research

In this research, the researcher used two instruments for collecting data, as follows:

a. Observation

Observation used to find out the students' data about their presence and activeness in teaching and learning process

b. Test

Test will use to acquire detail information about the students' prior ability and the student's achievement after the teaching and learning process end. In this case the researcher used multiple choice and essay test.

5. Procedure of collecting data

a. Pre-test

The researcher gave pre-test for the students. The pre-test used to find out the students prior knowledge and the student's comprehension before giving treatment. The test applied to both experimental class and control class by giving them same test. In pre test, the researcher gave some items of test that explain above with time allocation is 1 hour. The test was consisted of text, and the students have to answer the task of that.

b. Post- test

The post test used to find out the students comprehension on reading after giving the treatment. Like in pre test, the researcher gave some items of the test with time allocation is 1 hour. The test is consist of test, and the students have to answer that task.

6. Treatment

In treatment, the researcher will do some activities as follow

a. Experimental class

In running the treatment, the researcher ran 4 meetings both experimental class and control class. The activities that the researcher did in each meeting in experimental class are :

1. In the first meeting, researcher gave explanation to the students about my personal identity. The researcher gave one passage about personal identity to the student and read it comprehensively. The researcher controls and guided the students to comprehend the reading text material by using tree diagram Graphic Organizer" and then , students presented their idea or opinion about the reading text in front of the class
2. In the second meeting. The researcher gave explanation about personal identity, struktur teks, unsur kebahasaan
3. The researcher controls and guided the students to developed their mind or idea in reading by using "tree diagram graphic organizer".
4. In the third meeting, The researcher controls and guided the students to developed their mind or idea in reading activity by using "compare and contras Graphic Organizer".

5. In the fourth meeting, the researcher control and guided the students to developed their main or idea in reading by using “tree diagram graphic Organizer”.

b. Control class

Like in experimental class, the researcher ran 4 meetings in cotrol class. The activity that did in each meeting in control class are :

1. In the first meeting, researcher gave explanation to the students about greetings and leave takings. The researcher gave one passage about greetings to the student and read it comprehensively. The researcher controls and guided the students to comprehended the reading text material. And the researcher gave an instrument to the students in multiple choice and essay.
2. In the second meeting, the researcher guided the students to read dialogue about introducing. The researcherl controls and guided the students to developed their mind or idea in reading . And the researcher gave an instrument to the students in multiple choice and essay.
3. In the third meeting the researcher gave explanation to the students about how to made and comprehended grateful announcement. The researcher explained some aspect of grateful announcement to form good announcement. The researcher controls and guided the students to developed their mind or idea in reading. And the researcher gave an instrument to the students in multiple choice and essay.
4. In the fourth meeting, the researcher controls and guided the students to comprehended the reading text material. And the researcher gave an instrument to the students in multiple choice and essay.

The difference between the treatment in experimental class and control class was the technique which the researcher used in teaching –learning process. In experimental class, the researcher used Graphic Organizer strategy to teach the material. But in control class, the researcher used essay where the students did not present their opinion in front of the class.

7. Technique of data analysis

In this research, the researcher collected the data of the students reading comprehension after giving pre-test and post-test through quantitative analysis. The data analyzed by employing the following procedures

- a. Scoring the students answer the researcher used multiple choice to test the students reading comprehension

Scoring the students correct answer in multiple choice

Indicator	Score
Correct	1
Incorrect	0

(Direjen Pendidikan Dasar dan Menengah 2014)

- b. Scoring the students answer the researcher used essay to test the students' reading comprehension

Scoring the students correct answer in essay

No	Criteria	Score
1.	The meaning and grammar correct	4
2.	The meaning is correct and some error of grammar	3
3.	Some errors of meaning and grammar	2
4.	The meaning and grammar are correct	1
5.	No answer	0

Maximum score : 40

$$Score = \frac{students'answer}{maximum\ score\ (40)} \times 10$$

(Depdikbud in Budiyanto,2004 :27)

- c. Classifying the students score

There were five classification which were used as follows :

Score	Description
86 -100	Very good
71 – 85	Good
56 – 70	Fair
41 -55	Poor
≤ 40	Very poor

(Departement Pendidikan Nasional Republik Indonesia 2005)

- d. To calculate the percentage of the students' score, the researcher used as follows :

$$P = \frac{F}{N} \times 100$$

Notation :

P : Rate percentage

F : Frequency

N : The total number of students

(Sudjana, 1999)

- e. To find out the mean score of the students' test, the researcher used the formula :

$$X = \frac{\sum X}{N}$$

Where :

X = Mean score

$\sum X$ = Total score

N = The number of students

(Gay 1981 :294)

- f. The formula of standard deviation, the researcher used :

$$SD = \frac{SS_n}{n}$$

$$\text{in which } SS_1 = \sum X_1^2 - \frac{(\sum X_1)^2}{n_1} \text{ and } \sum X_2^2 - \frac{(\sum X_2)^2}{n_2}$$

SD = Standard deviation

SS_n = Standard of squares

n = The number of students

$\sum X^2$ = The sum of all square

$(\sum X)^2 =$ The sum square of the sum score

(Gay :2006)

- g. Finding the differences of mean score between the pre-test and the post test by calculating the value of the t-test, the formula as follows :

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\left(\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right) \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

$$SS_1 = \sum x_1^2 - \frac{(\sum X_1)^2}{n_1}$$

$$SS_2 = \sum x_2^2 - \frac{(\sum X_2)^2}{n_2}$$

Where :

t = test of significance

\bar{X}_1 = The experimental class

\bar{X}_2 = Mean score of the control class

SS_1 = The sum of square of the experimental class

SS_2 = The sum of square of the control class

n_1 = Total number the subject of experimental class

n_2 = Total number the subject of control class

$\sum x_1$ = The sum of the all squares of the experimental class

$\sum x_2$ = The sum of the all squares of the control class

$\sum (X_1)^2$ = The sum of scores of the experimental class

$\sum (X_2)^2$ = The sum of scores of the control class

(Gay :2006)

h. Criteria for testing Hypothesis

To test the hypothesis, the researcher used t-test with $\alpha = 0.05$ level of significance for independent sample, the formula degrees of freedom is $df = (N_1 + N_2) - 2$. The formula of the statistical hypothesis in this research is two tailed as follow :

$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 \neq \mu_2$$

Where :

μ_1 = Teaching reading comprehension by using graphic organizer strategy

μ_2 = Teaching reading comprehension by using direct instructions

1. If t-test equal with t-table, null hypothesis (H_0) accepted and the alternative (H_1) rejected. It means that there is no significant difference between the students who are taught graphic organizer method with who are taught direct teaching at the second grade of SMP Universitas Muhammadiyah Makassar.
2. If t-test unequal with t-table, null hypothesis (H_0) rejected and the alternative hypothesis (H_1) accepted. It means that there is a significant difference between the students who are taught graphic organizer method with who are taught direct teaching at the second grade students of SMP Universitas Muhammadiyah Makassar.

Findings

The findings were obtained through the reading test at the second grade students of SMP Universitas Muhammadiyah Makassar in academic year 2019-2020, which was conducted through two term, namely pre-test and post-test in experimental class and control class.

1. The Students' Reading Comprehension Achievement in Pre-test and Post-test of Experimental Class and Control Class.

a. Pre-Test

The following table describes the classification of the students' score of pre-test in experimental class and control class.

Table 4.1 The percentage of the students' score on pre-test

No	Classification	Score	Experimental class		Control class	
			F	(%)	F	(%)
1.	Very good	86-100	-	-	-	-
2.	Good	71-85	3	15%	-	-
3.	Fair	56-70	5	25%	4	20%
4.	Poor	41-55	8	40%	12	60%
5.	Very poor	≤ 40	4	20%	4	20%
	Total		20	100%	20	100%

Table 4.1 it shows that before treatment the students' both experimental class and control class were still low. Most of the students in both of the class got fair and poor classification. It indicated that the achievement of the students both of in experimental and control class in pre-test was still low.

b. Post- Test

The following table describes the classification of the students' score of Post-test in experimental class and control class.

Table 4.2 The percentage of students' score on post-test

No	Classification	Score	Experimental class		Control class	
			F	(%)	F	(%)
1.	Very good	86-100	-	-	-	-
2.	Good	71 – 85	6	30%	1	5%
3.	Fair	56 -70	12	60%	7	35%
4.	Poor	41 – 55	2	10%	12	60%
5.	Very poor	≤ 40	-	-	-	-
	Total		20	100%	20	100%

Based on the table 4.2 it shows that the students' reading comprehension achievement both in experimental class and control class was improving.

However, the improvement was different and also there are no one students who got very poor classification in both of the class. Most of the students in experimental and control class were classified in fair classification. The students who got good classification in experimental class was better then control class that used to improve the reading comprehension. It means that the method that researcher use in the experimental class was better than the method in control class.

2. The Mean Score and Standard Deviation for Experimental class and Control Class in Pre –test and Post-test

- a. The mean score and standard deviation of the students in pre-test for experimental class and control class

The result of the students in pre test after calculating the mean score and standard deviation in both classes are presented in following table.

Table 4.3. The Mean Score and Standard Deviation of Pre-test in Experimental Class and Control Class

SampleN	Mean Score	Standard Deviation
Experimental Class20	54.75	15.85
Control Class20	49	7.71

The table 4.3 shows that the mean score of the students' pre-test in experimental class was higher than the students' pre-test in control class. Yet, both of the class was still in poor classification and need to be improved. Besides, The standard deviation in both of the class is significant different. It indicated that the reading comprehension in both of the class was still variety before the researcher gave treatment.

- b. The mean score and standard deviation of the students in post-test for experimental class and control class

Table 4.4

SampleN	Mean Score	Standard Deviation
Experimental Class20	69.5	10.37
Control Class20	57.5	65.89

The table 4.4 shows that the mean score was obtained by the students in the experimental class was higher than the mean score of the students' post test in control class. Based on the two tables above, both of classes were improved from poor classification to good classification. On the other hand, the standard deviation in both of the class also points out the good improvement. After the reseracher gave treatment for both of the classes. The reading comprehension became less variety. So, the researcher concludes that the reading comprehension for both of the classes was getting better.

3. Hypothesis Testing

In hypothesis testing, the researcher used t-test formula. The level of significance is set at $\alpha = 0,05$

Table 4.5 Hypothesis Testing

Test	t-test value-	table value
Pre-test	1.459	1.685
Post-test	4.379	1.685

After applying t-test independent sample in calculating the difference of the students' reading comprehension between the experimental class and control class, it found that the t-test value higher than t-table value. It means that the null hypothesis was rejected and the alternative hypothesis was accepted. Therefore, the researcher concluded that the students who were taught by using graphic organizer method were better to improve the students' reading comprehension than the students who were taught by using direct instruction.

Discussion

This part present the result of the data analysis of pre-test and post-test in the findings. The researcher focused to find out about the effectiveness of Graphic Organizer method to improve the reading comprehension at the second grade students of SMP Universitas Muhammadiyah Makassar.

Before giving treatment, most of the students' reading comprehension was still low. It was proved by a mean score of the students in experimental class was (54.75) with standard deviation (15.85). while in the control class the mean score of the students was (49) with standard deviation (7.71). It means that the students' reading comprehension both in experimental class and control class before gave treatment was classified as low achievement.(Depdiknas,2005).

After giving treatment, the researcher gave post-test to the students in both experimental class and control class. The researcher found that the mean score of the students in experimental class was (69.5). While in control class, the mean score of the students was (57.5). Based on the (Depdiknas,2014) it could be classified as good in

experimental class. It showed that there was an improvement in the students' reading comprehension.

While the result of the standard deviation in the experimental class was (15.85) in the pre-test to (10.37) in post-test. The standard deviation of the students in the control class was (7.71) in the pre-test to (65.89) in post-test. It means that all the students both in experimental class and control class was categorized still various.

In testing hypothesis, the result computation of t-test was (1.459) for pre-test and (4.375) for post-test. If we consulted with t-table value with degree of freedom ($df = N_1 + N_2 - 2$) were significantly different. This indicated that the null hypothesis (H_0) is rejected and alternative hypothesis (H_1) is accepted because t-test value in post-test (4.379) was higher than t-table value (1.685). Therefore, the researcher concluded that teaching reading comprehension by using Graphic Organizer method can improve the students' reading comprehension at the second grade students of SMP Universitas Muhammadiyah Makassar.

Conclusion

Based on the findings and the discussion in the previous chapter, the researcher would like to conclude that the students more active in learning reading by using Graphic Organizer and can improve the reading comprehension at the second grade students of SMP Universitas Muhammadiyah Makassar were the mean score of experimental class for post-test was 69.5 and the mean score of control class for post test was 57.5

It the level significance of $\alpha = 0,05$, the t- test value was better than the t-table value. The show that the null hypothesis (H_0) Rejected and alternative hypothesis (H_1) accepted. It means that reading comprehension at the second grade students of SMP Universitas Muhammadiyah Makassar who were taught by using Graphic organizer methode is better than who are taught by using direct instruction method.

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