

CHAPTER III

METHOD OF THE RESEARCH

A. The Research Design

This research was an experimental research. According to Creswell, “experiment is that you test an idea (or practice or procedure) to determine whether it influences an outcome or dependent variable”.¹ The design of this research was quasi- experimental design, which used two groups as a sample. According to Nunan: “quasi- experiment has both pre- and post-tests and experimental and control groups, but no random assignment of subjects”.²

In this research, the writer chose two classes to become the control (VIII.2) and the experimental (VIII.1) class. The students were given the pre-test at the beginning in order to know their ability in reading. After that they were given the treatment for eight meetings in experimental class. At the end of the study, they were given post-test. In this research, the result of pre-test and post-test were compared in order to determine the difference between the students’ reading comprehension on narrative text taught by using Drawing to Remember Strategy and taught without using Drawing to Remember Strategy. This research consisted of two variables; the independent variable was symbolized by “X” that was Drawing to Remember Strategy and the dependent one was “Y” as students’ reading

¹ John. W Creswell. *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research*. (New Jersey: Pearson education, 2008), p. 299

² David Nunan. *Research Methods in Language Learning*. (United Kingdom: Cambridge University, 1992), p.41.

comprehension of the eighth grade students at State junior high school 1 Kunto Darussalam Rohul Regency.

According to Creswell, the design of this research can be illustrated as follows:³

Table III.1
Research Design

Group	Pre-test	Treatment	Post-test
A	O ₁	-	O ₂
B	O ₂	X	O ₂

Where:

A : Control group

B : Experimental group

O₁ : pre-test to Control group and Experimental group

X : receiving particular treatment

- : no particular treatment

O₂ : post-test for Control group and Experimental group

B. Time and location of the research

This research was conducted from April to May 2014. This research was conducted at State Junior High School 1 Kunto Darussalam Rohul regency.

C. The subject and the object of the research

The subject of the research was the eighth grade students at State Junior High School 1 Kunto Darussalam in 2013/2014 academic year, while the object of this research was the effect of using Drawing to Remember strategy on the students' reading comprehension.

³Jhon W Creswell. Op. Cit, p. 314

D. The population and the sample of the research

The population of this research was the eighth grade students of State Junior High School 1 Kunto Darussalam ROHUL regency. The total number was 154 students. They were divided into 5 classes, and each class had 30 to 32 students.

Table III.2
The Total Population of The Eighth Grade Students of State Junior High School 1 Kunto Darussalam 2013-2014

NO	CLASS	MALE	FEMALE	TOTAL
1	VIII 1	16	14	30
2	VIII 2	18	12	30
3	VIII 3	14	16	30
4	VIII 4	19	13	32
5	VIII 5	19	13	32

Considering that the population was big, thus, the writer picked up the sample of the population. The writer used clustering random sampling. The writers used 2 classes of 5 classes to be taken as samples.

E. The technique of data collection

The data of this research were collected by using test (pre and post-test). Both of these tests were given to the experimental and control class. The type of the test was multiple choice test. It consisted of 20 items. The test was done twice, the first was pre-test given before treatment and the second was post-test given after treatment intended to obtain the student's

reading comprehension of the eighth grade students at State Junior High School 1 Kunto Darussalam Rohul Regency.

After the students did the test, the writer then took the total score of the result of the reading comprehension test. The clasification of the srudents' score can be seen below:⁴

Table III.3
The Clasification of Students' Score

Score	Categories
80-100	Very Good
66-79	Good
56-65	Enough
40-55	Less
30-39	Fail

F. The Validity and Reliability of the test

1. Validity

Before the tests were given to the sample of this research, both of the tests were tried out to the students out of the sample of the eighth grade students of State Junior High School 1 Kunto Darussalam Rohul Regency. The purpose of the try out was to obtain validity and reliability of the test. The test is said to be valid if it measures accurately what it is intended to measure⁵. It was determined by finding the difficulty level of each item. The formula of item difficulty is as follows:⁶

⁴Suharsimi Arikunto. Op. Cit. 281

⁵Arthur Hughes. *Testing for Language Teacher, 2nd Edition*. (New York: Cambridge University Press. 2003), p. 26

⁶Suharsimi Arikunto. *Dasar- dasar Evaluasi Pendidikan*. (Jakarta: BumiAksara. 2009), p.

$$P = \frac{B}{JS}$$

Where

P : Index of difficulty or facility value

B : the number of correct answers

JS : the number of students or respondents

The difficulty level of an item showed how easy or difficult a particular item in a test. The items that did not reach the standard level of difficulty were excluding from the test and they were changed with new items that were appropriate.

The Standard level of difficulty is < 0.30 and > 0.70 . it means that the item test that is accepted if the level of difficulty is between $0.30-0.70$ and it is rejected if the level of difficulty is below 0.30 (difficult) and over 0.70 (easy). Then the proportion correct answer is represented by “p”, whereas the proportion incorrect answer is represented by “q”, it can be seen in the following tables:

TABLE III.4
The Students are Able to Find Out the Main Idea of Narrative Text

Variable	Find Out Main Ideas						N
Item number	1	6	11	16	17	21	30
Correct	20	17	19	17	17	19	
P	0.67	0.57	0.63	0.57	0.57	0.63	
Q	0.33	0.43	0.37	0.43	0.43	0.37	

Based on the table, it was found that the proportion of correct answer for item number 1 showed the propotion of correct 0.67, item

number 6 showed the proportion of correct 0.57, item number 11 showed the proportion of correct 0.63, item number 16 showed the proportion of correct 0.57, item number 17 showed the proportion of correct 0.57, item number 21 showed the proportion of correct 0.63. Based on the standard level of difficulty “p” < 0.30 and > 0.70 , it was pointed out that all of the items for identifying main idea were accepted.

TABLE III.5
The Students are Able to Identify the Specific Information of Narrative Text

Variable	Identifying the Specific Information							N
Item number	3	8	9	14	20	22	23	30
Correct	19	18	19	19	19	19	26	
P	0.63	0.6	0.63	0.63	0.63	0.63	0.87	
Q	0.37	0.4	0.37	0.37	0.37	0.37	0.13	

Based on the table, it was found that the proportion of correct answer for item number 3 showed the proportion of correct 0.63, item number 8 showed the proportion of correct 0.6, item number 9 showed the proportion of correct 0.63, item number 14 showed the proportion of correct 0.63, item number 20 showed the proportion of correct 0.63, item number 22 showed the proportion of correct 0.63, item number 23 showed the proportion of correct 0.87. Based on the standard level of difficulty “p” < 0.30 and > 0.70 , it showed that the items for identifying the specific information of number 3,8,9,14,20,22 were accepted, while item number 23 was rejected.

TABLE III.6
The Students are Able to Identify the Generic Structure of the Narrative Text

Variable	Identifying the Generic Structure						N
Item number	2	7	12	13	18	24	30
Correct	18	18	19	19	16	19	
P	0.6	0.6	0.63	0.63	0.53	0.63	
Q	0.4	0.4	0.37	0.37	0.47	0.37	

Based on the table, it was found that the proportion of correct answer for item number 2 showed the proportion of correct 0.6, item number 7 showed the proportion of correct 0.6, item number 12 showed the proportion of correct 0.63, item number 13 showed the proportion of correct 0.63, item number 18 showed the proportion of correct 0.53, item number 24 showed the proportion of correct 0.63. Based on the standard level of difficulty “p” < 0.30 and > 0.70, it was pointed out that all of the items for identifying the generic structure were accepted.

TABLE III.7
The Students are Able to Identify the Vocabulary of the Text

Variable	Identifying the vocabulary						N
Item number	4	5	10	15	19	25	30
Correct	19	19	18	18	17	6	
P	0.63	0.63	0.6	0.6	0.57	0.2	
Q	0.37	0.37	0.4	0.4	0.43	0.8	

Based on the table, it was found that the proportion of correct answer for item number 4 showed the proportion of correct 0.63, item number 5 showed the proportion of correct 0.63, item number 10 showed the proportion of correct 0.6, item number 15 showed the

proportion of correct 0.6, item number 19 showed the proportion of correct 0.57, item number 25 showed the proportion of correct 0.2. Based on the standard level of difficulty “p” < 0.3 and > 0.7, it was pointed out that items for identifying the vocabulary of number 4,5,10,15,19 were accepted, while item number 25 was rejected.

2. Reliability

Reliability was a necessary characteristic of good test. Brown said that “ a reliable test is consistent and dependable”.⁷ It means the test should be similar result when the tester give the same test to the same respondent on two different occasions.

To obtain the reliability of the test, it must be known the Mean and Standard Deviation of the test. So, the writer used the KR-20 formula as follows⁸:

$$r_i = \frac{k}{k-1} \frac{s^2 - pq}{s^2}$$

Where:

- r_i : Instrument reliability
- k : Number of items
- s^2 : Variance total (the square of Standard Deviation)
- p : The proportion of the students who are correct in answering an item divided with the total number of the students
- q : The proportion of the students who are incorrect in answering an item divided with the total number of students.

⁷H. Dauglas Brown. Op.Cit.p. 20

⁸Suharsimi Arikunto. Op. Cit. 115

The total Variance is calculated as follows:⁹

$$S^2 = \frac{x^2}{n}$$

n= number of respondents

$$\begin{aligned} x^2 &= \sum x^2 - \frac{(\sum x)^2}{n} \\ &= 7322 - \frac{206116}{30} \\ &= 7322 - 6870.53 \\ &= 451.47 \end{aligned}$$

$$S^2 = \frac{451.47}{30}$$

$$= 15.049$$

$$\begin{aligned} r_i &= \frac{k}{k-1} \left\{ \frac{S^2 - pq}{S^2} \right\} \\ &= \frac{25}{24} \left\{ \frac{15.049 - 5.71}{15.049} \right\} \\ &= (1.04) \times (0.62) \\ &= 0.645 \end{aligned}$$

(see appendix 5)

To obtain whether the test was reliable or not, the value of r_{11} had to be compared with r product moment. The value of r_{11} had to be higher than r_{table}

Based on the result above, the value of r_{11} was 0.645. then the r_{table} at 5% level of significance was 0.374. While r_{table} at 1% level of significance was 0.479. Thus, it can be concluded that $0.374 < 0.645 > 0.479$. On the

⁹ Hartono. *Analisis Item Instrument*. (Bandung: Zanafra, 2010).p. 103

other hand, the instrument was reliable because the value of r_{11} was higher than r_{table}

G. The technique of data analysis.

The technique of data analysis used in this research was T-test formula by using SPSS (Statistical Package for the Social Science) 16 Software version. In analyzing the data, the writer used scores of pre-test and post-test of experimental as well as the control class.

The t-table was employed to see whether there was a significant difference between the mean score of both experimental and control class or not. The t-obtained value is consulted with the value of t-table at the degree of freedom $(df) = (N_1 + N_2) - 2$. Then to know whether H_a and H_o is rejected or accepted, the hypotheses are statistically formulated as follows:

$$H_o: t_o < t\text{-table}$$

$$H_a: t_o > t\text{-table}$$

H_o is accepted if $t_o < t\text{-table}$ or there is no significant difference between the students' reading comprehension on narrative text taught by using Drawing to Remember Strategy and taught without using Drawing to Remember Strategy at State Junior High School 1 Kunto Darussalam Rohul Regency.

H_a is accepted if $t_o > t\text{-table}$ or there is a significant difference between the students' reading comprehension on narrative text taught by using Drawing to Remember Strategy and taught without using Drawing

to Remember Strategy at State Junior High School 1 Kunto Darussalam
Rohul Regency.