

## CHAPTER III

### RESEARCH METHODOLOGY

#### A. The Method of Research

In this research, the writer will use Experimental research. When hearing the term experimental designs, most of us think back to school experiments in science. Experimental research in the social sciences follows the same basic pattern as those (natural) science experiments. Experiment are carry out in order to explore the strength of relationship between variable. A variable as the term is self suggest, is anything, which does not remain constant.

According to Muijs defined that “Experimental research is a test undercontroll conditions that is make to demonstrate a known truth or examine the validity of a hypothesis.”<sup>1</sup> Nunan stated that “Experiment is a procedure for testing an hypotesis by setting up a situation in which the strenght of the relationship between variable can be tested.”<sup>2</sup> It means that experimental is a research method that test the hypothesis.

In this research the writer will uses quasi-experimental research, so there will be two classes which are equal intheir ability. Sample decision is conduct do not have randomly and the result is decide from pre test and post test from both control and experimental class. In order the writer want to know further The use of short stories to develop students reading

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<sup>1</sup> Daniel Muijs, *Doing Quantitative Research in Education*, p 13

<sup>2</sup> David Nunan, *Research Method In Language Learning*, ( New York: Cambridge University Press, 1992), p. 230.

comprehension skill. Beside that, to get the data the writer will use pre-test and post-test toward the subject of research.

## **B. Place and Time**

In research activity, the writer will take place for research at Mts Daarul Falah Carenang Kopo, because the writer knows in Mts Daarul Falah some problems that happen with students in English skills especially in reading skill. The writer will be starting the experiment on April 2017 until finish.

## **C. Population and Sample**

### **1. Population**

In the research method in language learning which David Nunan write say that “a population is all cases, situation or individuals who share one more characteristics.”<sup>3</sup> The population in this research is the students in the second grade at Mts Daarul Falah Carenang Kopo is 92 students. It is divided into three class.

### **2. Sample**

According to David Nunan “sample is a subset of individuals or cases from within population.”<sup>4</sup> The writer takes subject as the population in this as many as 60 students. 30 students of experimental class and 30 students control class.

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<sup>3</sup> David Nunan, *Research Method In Language Learning*, P.231

<sup>4</sup> David Nunan, *Research Method In Language Learning*, P.232

The writer uses random sampling to get data from two classes at the second grade. The total students. Consist part of the research is 60 students. Consist from 30 from VIII A and VIII B.

#### **D. The Research Instrument**

Reserch instrument is for fasilitation that use by writer to collect the data. Resercher uses test to know the students reading skill. The instrument is a process of selecting or developing device and method appropriate to give evaluation and getting the data. To know The use of short stories to develop students reading comprehension skill the writer give the reading test to the students. Because with this test the writer will to gives the score of pronunciation, and comprehension on reading.

A study using quantitative method usually process by systematically manipulating its specific variable to test the prediction make by theory informing the study. In this research, the writer gives two kind of test, there are as follows :

Pre-test :

The test that is given to both of control class before giving treatment non short story as a technique and experimen class before given treatment with short story as a technique.

Post-test :

The test that is given to both of control class after given the treatment non short story as technique and experiment class after given treatment with short story as a technique.

#### **E. The Technique Data Collecting**

Collecting data is an important thing in this research that can be determine. The technique data collecting will use this research are:

##### 1. Pre-test

The writer uses pre-test before use short story to knows students reading comprehension skill at Mts Daarul Falah Carenang Kopo.

##### 2. Post-test

The writer uses post-test after use short story, the writer can knows the result how using short story to develop students' reading comprehension skill.

#### **F. The Technique Data Analyzing**

The gathered data are used to find out the differences of students' achievement in experimental class and controlled class. In line with this, the writer uses statistic calculation through t-test formula is used to eximine the significance difference Of students' reading achievement test between experimental class and controlled class. The writer wants to compare result of the research between experiment class and control class students, the writer take steps as follow:

1. The result of the post-test in experiment class is named variable (X1)
2. The result of the post-test in control class is named variable (X2)

The steps for statistic analyze are:

1. Determining mean of variable X1 with formula :

$$M_1 = \frac{\sum X1}{N_1}$$

2. Determining mean of variable X2 with formula:

$$M_2 = \frac{\sum X2}{N_2}$$

3. Determining derivation score variable X<sub>1</sub> with formula:

$$X_1 = X1 - M_1$$

4. Determining derivation score variable X<sub>2</sub> with formula:

$$X_2 = X2 - M_2$$

After getting the data from pre-test and post-test, the writer analyze it by using statistic calculation of t-test formula with the degree of significance 5% and 1% the formula as follow:

$$t = \frac{M_1 - M_2}{\sqrt{\left\{ \frac{\sum X_1^2 + \sum X_2^2}{N_1 + N_2 - 2} \right\} \left\{ \frac{N_1 + N_2}{N_1 \cdot N_2} \right\}}}$$

$M_1$  = the average score of experiment class (Mean X1)

$M_2$  = the average score of control class (Mean X2)

$\sum X_1^2$  = Sum of square deviation of experiment class

$\sum X_2^2$  = Sum of square deviation of control class

$N_1$  = Numbers of students of experiment class

$N_2$  = Numbers of students of control class

2 = constant number

df = degree of freedom

df =  $N_1 + N_2 - 2$ <sup>5</sup>

5. Doing interpretation and calculation by comparing the result of calculation t-test with t-table.

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<sup>5</sup> J.P.Guilford,et.al. *Fundamental Statistic in Psychology and Education: International Student Edition* (California: McGraw-Hill,1981), 157.