

CHAPTER III

METHOD OF THE RESEARCH

A. Research Method

The writer uses the experimental research to know the real data that got from the respondent. According to Donal et, al “An experimental research is a scientific investigation in which the researcher manipulates one or more independent variables, controls any other relevant variables and observes the effect of the manipulations on dependent variable(s).”¹ The kinds of experimental methods are pre experimental design, true experimental design, and quasi experimental design that one of other has different characteristics.

The data analysis used quantitative research, it means that the writer collects the data from the field and must go to place of the research. Moreover, in this research, the writer uses quasi-experimental design because in the research there will be pre-test and post-test get the data. Two classes were involved in this research, it is experimental class and control class. the experimental class consists of the students who received treatment. However, the control class was not. Both classes received a pre-test on whatever instrument is used to assess the effect of the experiment

¹ Donald Ary, Lucy Cleser Jacobs and Cris Sorensen, *Introduction to Research in Education* (New York: CBS College Publishing, 2007), 265.

before the treatment has been given. the writer provided the research design as follows:

Table 3. 1
Quasi Experiment Design

No	Class	Pre-test	Treatment	Post-test
1	Experimental class	X	X	X
2	Control class	X	O	X

B. Place and Time

The place of this research is at MTs Al-Khairiyah Pipitan, Jl. Ciruas-Walantaka, Pipitan, Walantaka, Kota Serang, Banten, 42183.

This research will be conducted on the second grade students of MTs Al-Khairiyah Pipitan in academic year 2018/2019.

C. Population and Sample

1. Population

According to David Nunan “population is all the cases, situation, or individuals who shares one or more characteristics”.² The population of this research is entire students of the second grade of MTs Al-Khairiyah Pipitan in academic year 2018/2019. There are two classes in second

² Nunan, *Research Methods*, 231.

grade of MTs Al-Khairiyah Pipitan. The details of data class is represented in the below table:

Table 3.2
Population of the research

Class	Total
VIII E	30 students
VIII F	30 students
Total of Population	60 students

2. Sample

According to David Nunan “sample is subset of individual or cases from within population.”³ The writer takes the second grade students of MTs Al-Khairiyah Pipitan which total number are 158 students. The writer takes two classes as sample research from six classes. The writer uses random sampling to get data from two classes at the second grade. Which class VIII E as Experimental class with 30 students and VIII F as Control class with 30 students.

D. Instrument of Research

Instrument is a tool when the writer uses a method. The instrument is used to achieve the accuracy of the data and can indicate that the writer is

³ Nunan, *Research*, 232.

successful or not in research. The instrument of the research are interview and test.

The writer will interview of English teacher and the writer used reading test to students at the second grade of MTs Al-Khairiyah Pipitan.

E. Technique of Data Collecting

The research used two kinds of research instruments namely interview and test. This technique is used in order to get specific data related to problems of research.

1. Interview

According to Kothari “The interview method of collecting data involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses. This method can be used through personal interviews and, if possible, through telephone interviews”⁴

The writer will use a personal interview if the writer less data resources. The writer hopes that the respondents will give the information in detail.

⁴ C.R. Kothari, *Research Methodology Methods and Techniques* (New Delhi: New Age International Publisher, 2004), 97.

2. Test

According to Brown, test is one of method or process to know about students' ability, knowledge or performance (skills).⁵ The writer uses test to get data and information for the student's value. In this research, the writer gives the students two tests. Text consists of pre test and post test. The test is purposed to find out whether students reading score is better than before or not.

a) Pre-test

Pre-test is given to student before the writer doing a treatment of teaching in the classroom. In pre-test, both of the experimental class and control class are asked to comprehend reading text without applying Cooperative Integrated Reading and Composition (CIRC) technique. The function of pre-test is to know the main scores of the experimental and the control class before getting treatment. From the pre-test the writer given passage to the student. The student read of the text then given question such as: multiple choice and fill in the blank.

b) Post-test

Post-test is given to the student after the writer doing treatment of teaching in the classroom. Form of the post-test the writer given passage to the student. Then student read of text it then

⁵ Brown, *Language Assessment*, 3.

given question such as multiple choice and fill in the blank. The function of the post-test is to know the mean scores of the experimental class and the control class after treatment.

F. Technique of Data Analyzing

The steps for statistic analyze that are⁶ :

1. Determining mean of variable X_1 , with formula:

$$M_1 = \frac{\sum X_1}{N_1}$$

2. Determining mean of variable X_2 , with formula:

$$M_2 = \frac{\sum X_2}{N_2}$$

3. Determining derivation score variable X_1 , with formula:

$$x_1 = X_1 - M_1$$

4. Determining derivation score variable X_2 , with formula:

$$x_2 = X_2 - M_2$$

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

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

⁶ Anas Sudijono, *Pengantar Statistik Pendidikan*, (Jakarta :PT. Raja Grafindo, 2014), 317.

Notes:

M_1 = Mean score of the experiment class

M_2 = Mean score of the control class

$\sum x^2_1$ = Sum of square deviation score in experiment class

$\sum x^2_2$ = Sum of square deviation score in control class

N_1 = Number of students of experiment class

N_2 = Number of students of control class

2 = Constant number

df = Degree of Freedom ($df = N_1 + N_2 - 2$)

