CHAPTER III

METHOD OF THE RESEARCH

This chapter presents the methodology of research. It focuses on the method used in conducting this research. It covers the method of research, the place of research, research instrument, population and sample, technique of data collection, and technique of data analysis.

A. Research Method

To investigate the influence of Choral reading strategy in increasing students' reading comprehension, an experimental study would be suitable to the purpose of the research. In this research, the writer uses quantitative design to achieve the purpose. According to Ary, quantitative research "uses objective measurement to gather numeric data that are used to anwers questions or test predetermined hypothesis".[1] It means the method and instrument involve numerical measurement and then statistical quantification was conducted.

The writer use time series of experimental method. Experiment is a procedure for testing a hypothesis by setting up a situation in which the strength of relationship between variables can be tested.[2]

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[1] Donald Ary, at all, *Introduction to Reseach in education English 8th Edition*, (Canada: Wadsworth, Engage Learning, 2010) p. 22

[2] David Nunan, *Research Methods in Language Learning*, (New York: Cambridge University Press, 1992) p. 230.

Experimental study itself can be defined as an objective, systematic, and controlled study to predict or control the phenomena. Thus, the purpose of experimental research is to test causality relationship between the variables.

There are three types of experiment such as:[3]

1) Pre-experiment: may have pre- and post treatment tests, but lack a control group
2) Quasi-experiment: has both pre- and post test and experimental and control groups, but no random assignment of subject
3) True-experiment: has both pre- and post tests, experimental and control groups, and random assignment of subject.

In this research the writer uses **quasi experiment** research (pre test-post test non-equivalent-group design) to conduct the study. Frankel, Wallen, and Hyun explain that quasi experimental design do not include the use of random assigment.[4] Pre test-post test non-equivalent-group design is an experimental design had two groups; the first group obtain treatment, while the second group is control. In the design, the treatments.

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[3] Nunan, *Research Methods*, p. 41.

[4] Jack. R. Frankel, Norman E. Wallen, Helen H. Hyun, *How to Design and Evaluate Research in Education* (New York: Mc. Graw Hil., 1932) p.275

B. Population and Sample

1. Population

According to David Nunan, "population is all cases, situations, or individuals who share one or more characteristic".[5] The population of this research is the students' SMPN 4 Pandeglang, especially the second grade that consist 160 students for four classes.

2. Sample

Sample is a subset of individuals or cases from within a population.[6] There are two classes of second grade in SMPN 4 Pandeglang. The writer chooses two classes as a sample from the second class. Class VIIIA consist of 40 students as experimental class and class VIIIB consist of 36 students as controlled class.

C. Instruments

In this research the data will be gotten through two instruments. The instruments that used by the researcher consist of pre test and post test. Pre test and post test are research instruments that use as an instrument to know the result from experimental class and control class.

Pre test is question to evaluate the subject that without using Choral Reading strategy in teaching to both of classes. Post test is

[5] Nunan, *Research Methods,* p. 231
[6] Nunan, *Research Methods,* p. 232

question to evaluate the subject that using Choral Reading strategy in experiment class and without using Choral Reading strategy in control class.

D. Data Collection and Data Analysis

1. Data Collection

a. Test

Test is any procedure for measuring ability, knowledge, or performance. Test is used to measure the students' mastery in reading descriptive text. It was done twice; pre-test and post-test:

1. Pre-test

Before the teacher taught new material by using Choral Reading strategy, the teacher asked students to answer pre-test. Pre-test was given to the experimental and control classes in same way.

2. Post-test

Post-test was given to the experimental class and control class. It was given in order to know students' achievement after they were taught by using Choral Reading strategy (experimental class) and without using Choral Reading strategy (control class). In this case, students were asked to answer the post-test.

Comprehension tests can use a variety of question forms and can have a variety of focuses.[7] To score reading comprehension test, the writer used multiple choice test.

2. Data Analysis

After collecting data, the writer use statistical approach for quantitative data. The writer use t test. According to Anas Sudijono, t test is used to test the null of the truth of facility of the claim that the mean between two samples drawn as random from the same polpulation there was no significant differences.[8] In this case, use of t test is a comparison between experimental and control class. T test use to know the difference both the sample of this research. The writer used the steps as follow:

Determine variable as the analysis technique for comparative research test.

a. Determining mean of variable X (variable I) with formula:

$$MX = \frac{\sum X}{N1}$$

[7] I. S. P Nation., *Teaching ESL/EFL Reading and Writing*, (New York: Routledge, 2009) p. 77

[8] Anas Sudijono, *Pengantar Statistika Pendidikan*, (Jakarta: Rajawali Press, 2014) p. 278

b. Determining mean of variable Y (variable II) with formula:

$$MY = \frac{\sum Y}{N2}$$

c. Determining deviation standard of variable I with formula:

$$\mathrm{SD_X} = \sqrt{\frac{\sum X^2}{N1}}$$

d. Determining deviation standard of variable II with formula:

$$\mathrm{SD_Y} = \sqrt{\frac{\sum Y^2}{N2}}$$

e. Determining standard error of mean variable I with formula:

$$\mathrm{SE_{MX}} = \frac{SD_1}{\sqrt{N1-1}}$$

f. Determining standard error of mean variable II with formula:

$$\mathrm{SE_{MY}} = \frac{SD_2}{\sqrt{N2-1}}$$

g. Determining standard error of mean difference variable I and variable II with formula:

$$\mathrm{SEM1\text{-}M2} = \sqrt{SEM12 + SEM2^2}$$

h. Analyzing the result by using calculation of t-test as follow:

$$t_0 = \frac{M1 - M2}{SEM1 - M2}$$

i. Determining degrees of freedom (df) with formula:

Df= (N1+N2) - 2

Note:

MX = Mean of Experimental Class (X)

MY = Mean of Control Class (Y)

SD_X = Deviation Standard of Variable I

SD_Y = Deviation Standard of Variable II

SE_{MX} = Standard Error of Mean Variable I

SE_{MY} = Standard Error of Mean Variable II

SEM1-M2 = Standard Error of Variable X and Y

t_0 = t-test

Df = Degree of Freedom