

CHAPTER III

METHOD OF THE RESEARCH

A. The Methodology of Research

Khotary defined research as “a scientific and systematic search for pertinent information on a specific topic.”¹ Other theory came from Redman and Mory in Khotari, they said that “research is systematized effort to gain new knowledge.”² Meanwhile Sing define research as “ simply the process of arriving as dependable solution to a problem through the planned and systematic collection, analysis and interpretation of data.”³ In other hand research is scientific and systematic process to find out a solution of problem trough the planned and systematic collection, analysis and interpretation of data.

The research design in this study is using experimental method. According to Nunan, “experiment is a procedure for testing an Hypoteses by setting up a situation in which the strenght of the relationship between variable can be tested.”⁴ So, the aim of this study is to find out the relationship between

¹ C. R. Khotari, *Research Methodology* (New Delhi: New Age International (P) Ltd., Publishers, 2004), 1.

² Khotari, *Research Methodology*, 1

³ Yogesh Kumar Sing, *Fundamental of Research Methodology and Statistic* (New Delhi: New Age International (P) Ltd., Publishers, 2006), 1.

⁴ David Nunan, *Research Method in Language Learning* (New York: Cambridge University Press, 1992), 230.

dependent variable which in this study is scaffolding and independent variable, in this case is students' writing report text skill.

Porte stated that “the design classification and whether this is going to be basically a pre-experimental, quasi-experimental, pure (true) experimental or ex post facto design.”⁵ Among of those models, the researcher uses quasi-experimental method as a research method of this study, The researcher chooses quasi-experimental method because the aim of this research is to find effectiveness of a scaffolding study so the researcher used quasi experiment as research method where sample was given pre-test, posttest and treatment. scaffolding as a treatment will given to experimental class, after the pre-test had been given.

B. Time and Place of the research

This research takes place on Senior High School SUBIS, the location is on Jl. Raya Mandalawangi, Pasir Petey Pandeglang-Banten, Kode pos 42202. The writer chooses that school to conduct this research because students in Senior High School SUBIS felt difficult in English learning, and the learning strategy such as writing the whole text is not effective, it makes students were bored in English learning process. Another reason why researcher choosing Senior High

⁵Graeme Keith Porte, *Appraising Research in Second Language Learning: a practical approach to critical analysis of quantitative research* (Amsterdam: John Benjamins Publishing Company, 2002), 71.

School SUBIS because the headmaster and his teachers are very friendly and the location is not far from my house.

C. The population and sample

1. Population

"A population consists of an entire set of objects, observations, or scores that have something in common."⁶ It means population is the set of all possible data on the observations recorded by a researcher, and Nunan defined population as "cases, situations or individuals who share one or more characteristics".⁷

In the other hand, population is set of objects or totality of all objects that researcher want to study. The population of this research is the second grade of MA SUBIS. They are XI IPA 1, XI IPA 2, XI IPS 1, XI IPS 2, with the total population is 140 students.

2. Sample

"A sample is a group of units selected from a larger group (the population) to represent it, because the population is too large to study in its entirety."⁸ The research used one class as a sample, it is XI with the number of student is 60 students. They are students in class XI IPA 1 as control class which consists of

⁶ Porte, *Appraising Reseach in Second Language Learning*, 241.

⁷ Nunan, *Research Method*, 231.

⁸ Porte, *Appraising Reseach in Second Language Learning*, 243.

30 students and they were taught without intelligences activities. While students in class XI IPA 2 as experimental class that consists of 30 students, they were taught using scaffolding.

D. The Research Instrument

Research instrument is for facilitation that use by researcher to collect the data. Researcher uses test to know the students writing report skill, and in this study researcher used essay as the best choice to apply on the test instrument of this study. To get data of writing report text skill, the writer give pre-test before treatment and post-test after treatment.

1. Test

a. Pre-test

before applying the multiple intelligences model in experimental class, the researcher gives the pre-test to experiment class and control class in the first meeting to know the initial students' writing skill.

b. Post-test

Both experiment and control class will face the post-test after giving the treatment for experimental class, it will be used to measure the effect of multiple intelligences activities toward students' writing skill ability.

E. The Technique of Data Collecting

In technique of data collecting, researcher uses teaching and learning process by giving the test to the students, the researcher obtained the data conducting teaching activity and collecting students test scores from both experiment class and controlled class before and after they have been taught writing comprehension. The test was conducted at the first meeting that can be called pre-test and the second can be called post-test which the scores were the result of learning writing comprehension taught scaffolding.

Before giving the test to the students, the researcher consulted to the English teacher about the question she made, weather these questions can be given to the students, the researcher gave the same kind of test for both the experimental class and the control class.

F. The Technique of Data Analysis

The class as a sample will given a treatment using scaffolding study in teaching writing report, After students were given the treatment, there was a post-test present to measure the effectiveness of using scaffolding in teaching writing report text that had been already given. The purpose of the data analysis is to know the effectiveness of using scaffolding in teaching writing toward students writing report text skill of MA SUBIS.

The steps for statistic analyze that are :

1. Determining mean of variable X with formula :

$$M_X \text{ or } M_1 = \frac{\sum X_1}{N_1}$$

2. Determining mean of variable Y with formula :

$$M_Y \text{ or } M_2 = \frac{\sum Y_1}{N_2}$$

3. Determining derivation score variable X with formula :

$$SD_1 \text{ or } SD_X = \sqrt{\frac{\sum X^2}{N_1}}$$

4. Determining derivation score variable Y with formula :

$$SD_2 \text{ or } SD_Y = \sqrt{\frac{\sum Y^2}{N_2}}$$

5. Determining standard error mean variable X with formula :

$$SD_{M_X} \text{ or } SE_{M_1} = \frac{SD_1}{\sqrt{N_1 - 1}}$$

6. Determining standard error mean variable Y with formula :

$$SD_{M_Y} \text{ or } SE_{M_2} = \frac{SD_2}{\sqrt{N_2 - 1}}$$

7. Determining standard error differences between mean of variable X and mean of variable Y with formula :

$$SE_{M_1 - M_2} = \sqrt{SE_{M_1}^2 + SE_{M_2}^2}$$

8. To find out t_o with formula :

$$t_o = \frac{M_1 - M_2}{SD_{M_1 - M_2}}$$

9. Determining the degree of freedom using this formula:

$$Df \text{ or } db = (N_1 + N_2) - 2$$

after collecting the data from pre-test and post-test, the researcher analyze it by using statistic calculation of t-test by using fisher formula with significance degree 5% and 1%

10. To examine the hypothesis by determine the significant differences between two variables with criteria:
- a. Working hypothesis (H1) $t\text{-test} > t\text{-table}$, so there is significant differences between control class and experiment class.
 - b. Null hypothesis (Ho) $t\text{-test} < t\text{-table}$ if there is no significant differences between control class and experiment class.