

CHAPTER III

METHOD OF THE RESEARCH

A. Method of Research

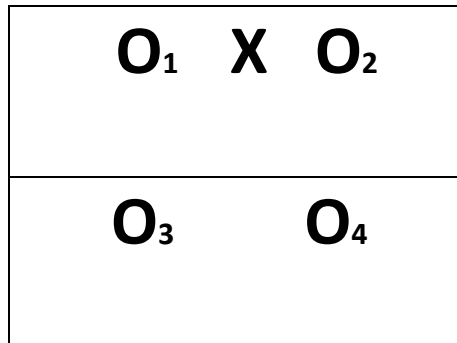
In conducting this research, the author uses quantitative quasi experimental research. In this research the author uses quantitative design to achieve the purpose. It means the method and instrument involve numerical measurement and the statistical quantification was conducted. There are three type of experiment such as:¹ 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 the subject. 3). True – experiment : has both pre and post-test, experimental and control groups and random assigment of the subject.

In this research, the author uses quasi experiment research to conduct the study. The author take first class as an experiment class, the class is given pre-test, the treatment and students are given post test to measure the treatment influence or not. In addition, the author takes

¹ David Nunan, *Research Methods in Language Learning* (New York : Cambridge University, 1992). 41.

the second class as a control class, the class is given only pre-test and post-test without treatment.

Furthermore, Asgari and Nunes illustrates the design of experimental study as follows:²



O₁ : Experiment before giving treatment and use read aloud and mini drama script.

O₃ : Control group did not receive treatment.

X : Treatment (until two meetings) in experiment group.

O₂ : Experiment after giving treatment and use read aloud and mini drama script.

O₄ : Control group without treatment and use read aloud and mini drama script

² Shaghayegh Asgari and Miguel Baptista Nunes, "Experiment and Quasi-Experimental Research Information Systems", *IADIS International Workshop Information Systems Research Trends: approaches and methodologies*. Vol.6 No.2 (July 2011), 39.

B. Population and Sample

In quantitative study, Identify the population in the study. Also state the size of this population, if size can be determined, and the means of identifying individuals in the population. Questions of access arise here, and the researcher might refer to availability of sampling frames—mail or published lists—of potential respondents in the population.³

The Population of this research is the tenth grade students of Boarding Al - Mubarak. Then, because the population is too large and this study will use quasi- experimental, so the author only use two classes of the tenth grade at Boarding Al – Mubarak Kota Serang as sample.

Furthermore, the author used a simple random sampling because every member of population has an equal and independent opportunity of being selected. Many scholars believe that a simple random sampling method is the best way to obtain a sample representative of the population of interest. In addition, to find out the samples the writer used formula of Slovin as follow⁴:

³ John W. Creswell, J. David Cresswell *Research Design* (California : Sage Publications, Inc, 2018), 212.

⁴ Ansar, Astin Lukum, Arifin and Yudith J.Dengo. “The Influence Of School Culture On The Performance Of High School English Teachers In Gorontalo

$$n = \frac{N}{1+Ne^2}$$

$$n = \frac{70}{1 + 70 \cdot 0,05^2}$$

$$n = \frac{70}{1 + 0.175}$$

$$n = \frac{70}{1.175}$$

$$n = 59.57 = 60 \text{ Students}$$

C. The Technique of Data Collecting

The author has two technique to gain this quantitative research, they are test.

a) Test

Test is any produce for measuring speaking ability, knowledge, or performance. Test is used to measure the students' confidence in speaking skill ability. It was done twice : pre-test and post-test.

1) Pre – test

Before teacher taught new material by read aloud using mini drama script, the teacher ask students' to

answer pre-test. Pre-test was given to the experimental and control classes in the same way.

2) Treatment

After giving pretest, the author give treatment to experimental group. The author uses read aloud using mini drama script and give strategy read aloud as media to facilitate students to improve speaking skill. The author used many types of mini drama script. The treatment is given for two meetings and the treatment processes will be described quantitatively and qualitatively in chapter IV.

3) 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 read aloud using mini drama script (experimental class) and without example provide style how to read aloud using mini drama script from teacher (control class). In this case, students were asked to answer the post-test.

D. The Technique of Data Analysis

To analysis data, the researcher uses T-test. “T-test is one of the statistical tests used to test the truth or the falsity of the null hypothesis which states that between 2 samples taken randomly from the same population, there is no significant difference”.⁵ “The T-test is one of the comparative analysis techniques used to test the truth, whether there is a difference between two or more variables under investigation”.⁶ T-test is the most frequently used measure in second language research when comparing mean scores for two groups. It supposed to know whether experimental versus control class when taking the same test has the same score or not.

The analyzed data is acquired from the test and observation. The author analyzes the data based on the collected score data of pretest and posttest of experimental class and control class. Moreover, the result of post-test in experiment group is given name variable X1 and for control group is given name variable X2. Then, the steps of analyzing data are as follows:

⁵ Anas Sujiono, *Pengertian Statistik Pendidikan*, (Jakarta: Raja GrafindoPersada, 2012), 278.

⁶ Fathor Rachman Utsman, *Panduan Statistika Pendidikan*, (Jogjakarta: Diva Press, 2015), 153.

1. Calculating students' speaking skill score both pre-test and post-test by using the following formula :

$$\text{Students' Score} = \frac{\text{Students' right answer}}{\text{Total items}} \times 100$$

2. Determining mean of variable X1 with formula as follows:

$$M^1 = \frac{\sum X^1}{N^1}$$

3. Determining mean of variable X2 with formula as follows:

$$M^2 = \frac{\sum X^2}{N^2}$$

4. Counting standard of deviation score variable X1 with formula as follows:

$$X_1 = X_1 - M_1$$

5. Counting standard of deviation score variable X1 with formula as follows:

$$X_2 = X_2 - M_2$$

6. Testing normality of data by using Lilliefors method with formula as follows:

$$Z = \frac{X - \bar{X}}{SD}$$

7. Counting degree of freedom with formula as follows:

$$df = N1 + N2 - 2$$

8. Analyzing and comparing the result of post-test from both groups by using t-test formula as follows:

$$t_0 = \frac{M^1 - M_2}{\sqrt{\frac{\{\sum X_1^2 + \sum X_2^2\} \{N^1 + N^2\}}{\{N_1 + N_2 - 2\} \{N^1 \cdot N^2\}}}}$$