

CHAPTER III

RESEARCH METHODOLOGY

A. The Method of Research

There are many types of quantitative research design such as pre-experimental, true experiment, quasi experimental, and ex-post facto. In this research the researcher used quasi experimental. According to Sugiyono, quasi experimental design means that the researcher does not have maximum control in doing the experiment.¹ The design which is used in the research is quasi-experimental design which uses experimental and control groups. Quasi experimental is applied because the writer is able to control at least one of the most dominant variable of the research, in this case the ability of student listening skill. The experimental research is chosen to determine influences an outcome or dependent variable, which is the effectiveness of using conversation video in learning to the students of ninth grade SMP Negeri 17 Kota Serang. In investigating the effectiveness of using conversation video in learning listening, two classes ninth grades are selected.

According to Donna, the researcher's goal is to establish a cause and effect relationship between two phenomena. The research aims to establish that one variable, the independent variable, causes in another variable, and the dependent variable.²

¹ Sugiyono. *Metode Penelitian Pendidikan; Pendekatan Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta 2008. P48

² Donna M. Johnson *Approaches to Research in Second Language Learning*, (London: University of Arizona, 1992), p.165

The writer will explain the types of experiment and its characteristic briefly. First is Pre-experimental may have pre-test and post-test treatment group. Second is quasi experiments has both pre-test and post-test, experimental and control groups, but no random assignment of subject. And the third is true experiments has both pre-test and post-test, experimental and control group, and random assignment of subject.³

The writer choosed Quasi experiment research as appropriate method of this title. It means that the writer gives a treatment to gain objective of the research and take no random assignment of subject.

B. Place and Time

SMP Negeri 17 Kota Serang is chosen as the place for conducting the research. The located of this school is at Jln Kesawon Kaligandu, Kec. Serang Kota Serang. The writer took the research from April until May 2018.

C. Population and Sample

1. Population

The population means is a whole subject of research. The populations on this research is the students of C class and D class of 8th grade at SMP Negeri 17 Kota Serang. Which is one class for pretest and one class post-test. C class is consist of 40 students and D class also consist of 40 and all the populations in here 80 students from two students from two classes. According to Nunan, says that

³ David Nunan, *Research Method in Language Learning*. (USA, Cambridge University press 1991 p.230

“populations is all cases, situations, or individuals or share one or more characteristic”⁴. In this research, the writer took the populations of all students at ninth grade of SMP Negeri 17 Kota Serang.

2. Sample

Sample is important because in almost cases, it is not practical to study all the members of population. Nunan state that “Sample is subset of individual or cases from within population”⁵. The writer used two class which have 80 students. The first is as Experimental Class and second is as Control Class. The writer chose class VIII C as experimental class that is consist 40 students and class VIII D as control class that is consist 40 students. The researcher use no random technique, because it is one of characteristic from quasi experiment.

D. The Research Instrument

Instrument is the tool at the time of research which using method. The instrument of this research is based on the material that used in this school and other book. The writer conducts to steps of the research the pre-test and post-test.

In order to get the final score, the writer needs a research instrument to collect the data. The instrument to measure the listening comprehension for 8th grade of SMP Negeri 17 Kota Serang. Instrument that will be used by the writer fill in the blank. It

⁴ David Nunan, *Research Method In Language Learning*,(New York: Cambridge University Press, 1992), p. 232

⁵David Nunan, *Research Method In Language Learning*, p. 232

will be done before treatment (pre-test) and after treatment (post-test).

E. The Technique Data Collecting

Data is the most important thing in research. According to Martin, “data refers to the kind of information researchers obtain o the subjects of their research”.⁶ In collecting the data, there were two kinds of instrument were used there are pre-test and post-test.

The test conducted as the technique of collecting the data. There are two kinds of test: pre-test and post-test. A pre-test is a test which provides a measure on some attribute or characteristic assessed for participants in an experiment before they receive a treatment, while a post-test is a test which is a measure on some attribute or characteristic that assessed for participants after treatment. The similar pre-test was given for control and experiment class before conducting English conversation video as the media for treatment for experiment class. It purposed to make sure that those two classes are homogenous. After giving some treatments, a similar test was given again named post-test for both two classes to know the differences of student’s achievement of listening section between control and experiment class.

F. The Technique Data Analyzing

To analyze the data, the writer uses comparative technique. The writer compares the score between experiment class and control

⁶ Martin. J, The basic Educational Research. Lincoln, Neb: Buros Institute of mental Measurements of University of Nebraska. P 22

class. This case also called as processing data. Data processing is the last step to know the result of both the experiment class and control class and their difference

After getting data from the Pre-test and Post-test, they are analyzed and processed by using statistic calculation of the t-test formula with significant degree 5% and 1%. The formula as follows:⁷

$$t_o = \sqrt{\frac{(\sum x_1^2 + \sum y_2^2)(N_1 + N_2)}{(N_1 + N_2 - 2)(N_1 \cdot N_2)}}$$

M_1 : Mean Score of Experimental class

M_2 : Mean Score of Control Class

$\sum x_1^2$: 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

df : Degree of freedom

Afterward, to know the result of the tests (Pre-test and Post-test) the writer makes the table calculating of students score from both classes (experiment class and control class), and the writer compares that class experiment with video in learning listening and control class without video in learning listening. the score of the Pre-test and Post-test.

⁷ Drs. AnasSudjono, *Pengantar Statistik Pendidikan*, (Jakarta: PT. Raja Grafindo Perkasa, 2002). p. 297

The last the writer got two data. The first data is the result of pre-test and the second data is the result of post-test and each from experiment class and control class. To find out how significant the influences of using Conversation Video in teaching Listening Comprehension.

For the calculating using formula:

- a. Determining mean 1 with formula:

$$M_1 = \frac{\sum x}{N}$$

- b. Determining mean 2:

$$M_2 = \frac{\sum x}{N}$$

- c. Determining the standard of deviation of variable 1:

$$SD_1 = \frac{\sqrt{\sum x^2}}{N}$$

- d. Determining the standard of deviation of variable 2:

$$SD_2 = \frac{\sqrt{\sum y^2}}{N}$$

- e. Determining the standard error mean of variable 1:

$$SE_{M1} = \frac{\sqrt{\sum x^2}}{N - 1}$$

- f. Determining the standard error mean of variable 2:

$$SE_{M1} = \frac{\sqrt{\sum x^2}}{N - 1}$$

- g. Determining the standard error mean difference of M1 and M2:

$$SD_{M1-M2} = \sqrt{SE_{M1}^2 + SE_{M2}^2}$$

h. Determining t_0 with the formula :

$$t_0 = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

i. Determining t-table in significance level 5% and 1% with df:

$$df = (N_1 + N_2) - 2$$