### **CHAPTER III**

### METHODOLOGY OF THE RESEARCH

### A. The Method of Research

In this research, the researcher uses the experimental research to know the real data that got from the respondent. Experiment research are particularly concerned with the issue of external validity, and the formal experiment is specially designs to enable the researcher to extrapolate the outcomes of the researcher from the sample to the broader population. It was reasonable that the researcher intended to examine the cause and effect between two variables, YouTube English video and students' writing ability.

The data analysis uses is quantitative research it means that the researcher collects the data from the field and must go to place the research. Moreover to know the influence of Cue Card 4d on students' descriptive writing skill.

The researcher uses quasi experiment because in the research there are pre-test and post-test get the data. Two classes where 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 before the treatment has been given. To make this research more clear, the researcher provided the research design as follows:

Table: Research Design

No	Class	Pre-test	Treatment	Post- test
1.	Experimental class	X	X	X
2.	Control class	X	0	X

# B. The Place and Time

This research takes place on MTsN 1 Kota Cilegon, this research will carried out on May 2018, about three weeks. The first week is for pre-test, the second until third is for treatment and post-test.

# C. Population and Sample

# 1. Population

According to David Nunan "a population is simply a group of individuals who share a certain a

characteristic". The population in this research is the second grade of MTsN 1 Kota Cilegon. The total of population of study are 180 in 6 parallel classes which are considered of 30 students on each class.

# 2. Sample

Sample is a part or the represent of population that is researched. According to suharsini in Jusuf Soewadji's book, the sample is partially partly or representative of the population studied. The sample intended to represent population. The research takes two classes as sample research from the second grade students at MTsN 1 Kota Cilegon. The researcher chooses class VIIIA as Experimental class with 30 students and VIIIB as control class with 30 students.

### **D.** Research Instrument

#### Instrument for treatment

Every research uses instrument. Instrumentation is related to reliability since it involves consistency in data gathering. Instrument is whole process of preparing to collect the data. It is important to take the information and the data which will be treated in this research. The instrument used in this study is essay. It can be objective to measure learning outcome. In this study, the essay consist of determining identification and description.

# E. Technique of Collecting Data

#### 1. Observation

Observation is the process of observe toward the subject of observation by using all of sense. Observation tasks are observations that focus on the teaching-learning process such as seeing how far they are progressing, is there any change after using Animal 4D media from Cue Card 4D, is there interest in the lesson, whether the learning process is in accordance with the curriculum and taking into account students' reactions during the lesson, not just Noting the reaction, but also assessing whether the reaction is very lacking, or not in accordance with what is desired or information from the actual lesson. Researchers observed the learning process of classes VIII A and VIII B.

#### 2. Test

# a. Pre-Test

For writing pre test the writer uses written test through the paper before project applied. Pre-Test consist of essay, the essay consist of determining identification and description with the topic of the question. Before giving the treatment, the writer gives the pre-test to the both classes as sample to know the students' descriptive writing skill.

### b. Post-Test

The text will be administrated after the student are give treatment either by using Cue Card 4D to find out the result of the different treatment used. Similar with the post-test there are essay consist of determining identification and description with the topic in the question to writing by the generic structure and language feature in descriptive text.

# F. Techniques of Analyzing Data

The data were analyzed by using T-test formula. This formula is used to determine the significance difference between pre-test and post-test. Then the result of calculation of the t-test value consulted to value table.

To analyze data, the writer uses statistical approach quantitative data. The steps are :

a. Determining mean of variable X1 with formula:

$$M1 = \frac{\sum X1}{N1}$$

b. Determining mean of variable X2 with formula:

$$M2 = \frac{\sum X2}{N2}$$

After getting the data from the observation pre-test and post-test, they are analyzed and processed by using statistic calculation of the t-test formula with significance degree 5% and

1% (0,05 or 0,01) the formula of t-test using fisher formula is as follow:

$$to = \frac{M1 - M2}{\sqrt{\left\{\frac{\sum X2_1 + \sum X2_2}{N1 + N2 - 2}\right\}\left\{\frac{N1 + N2}{N1 \ N2}\right\}}}$$

Note:

 $M_1$  = Mean score of experimental class

 $M_2$  = Mean score of control class

 $\sum X \ 2_1$  = Sum of the square deviation score in

experimental class

 $\sum X2_2$  = Sum of the square deviation score in

control class

 $N_1$  = Number of the student of experimental

class

 $N_1$  = Number of the student of control class

df = Degree of freedom

$$df = (N1 + N2) - 2$$