

CHAPTER III

METHODOLOGY OF RESEACRH

A. Research Method

This research will used quantitative research. According to Kothari has defined quantitative research is based on the measurement of quality or amount. It is applicable to phenomena that can be expressed in term quantity.

¹ In this research, the researcher will use experimental research.

According to Danim, experimental research is conducted by conducting an objective, systematic and controlled study to predict or control phenomena. Experimental research aims to investigate cause and effect relationships, by exposing one or more experimental groups and one or more experimental conditions. The results were compared with one or more control groups not subject to treatment.²

Research variables and experimental conditions are arranges in an orderly and strict manner, either by establishing control, direct manipulation and random.

1. The existence of the control group as a basis for comparison with the experimental group
2. This research focuses instead of controlling variance, to maximize variant variances associated with the research hypothesis, minimizing the variance of confounding variables that may affect experimental results, but not the research objectives. In addiction, this study minimized the variance of error, including measurement error. For

¹ C.R Kothari,” *research methodology and techniques*”, new age international (p)limited publisher, 2004, p.3

² Ir. Syofiyansiregar,” *metode penelitian kuantitatif*,” (Jakarta PT fajar interpretama amndiri,2013), p.5

that, preferable the selection and determination of the subjects in group is done randomly.

3. Internal validity is absolutely necessary in experimental research design, to find out whether experimental manipulation conducted at the time of this study really did make a difference.
4. External validity relates to how the representation of research finding is related and also to the realignment of the same conditions
5. All important variables are kept constant, unless treatment variables are deliberately manipulated or left to vary.

According to Cohen,” there are varieties of research methods and designs employed by social scientists. There are several different kinds of experimental design: the controlled experiment in laboratory conditions or true experiment, the field or quasi-experimental in the natural setting rather than the laboratory, but where variables are isolated, controlled and manipulated and the natural experiment in which it is not possible to isolate and control variables.

In this research, the writer use true experimental design and its kind is pretest-post test control and experimental group design. In addition, researchers also want to know the effectiveness of animal images as media to improve writing skill in descriptive text.

B. Place and time

The place of this research is at MTS Al-Mubarak, kota Serang-Banten This research will be conducted on the second grade of MTS Al-Mubarak in the 2019/2020 academic year.

C. Population and sample

1. Population

According to Bungin quoted by Siregar, population of research is the whole of the object of research that can be human, animal, plants, air, symptoms, values, events, attitude and so on. So this object can be the source of research data.³ The population of this research was all second grade of MTS AL-MUBAROK in academic year 2018/2019.

2. Sample and technique sampling

Sample is part of population, which is choose to participate in the study. The researcher will observe not all classes but only a class, that is first grade. To determine two class, the researcher used purposive sampling technique. This technique was done by taking the subject/sample which is based on strata, random or area

The research will take two classes to be experimental class and control class. The one of class as the experimental class and control class which is taught by animal images as learning media while another class as the control class which is taught without animal images as learning media but using slide presentation.

In this research, the researcher will used purposive sampling of grade population

E. Instrument of Research

Instrument of this research will used two instrument, are:

1. Observation

Observation is an activity that includes the activity of loading attention to an object by using all the sense. Kothari defined the

³ Ir. Syofiansiregar, "metodepenelitiankuantitatif", (Jakarta:PT FajarInterpramaMandiri,2013), p.30

observation method is the most commonly used method specially in studies relating to behavioral sciences.

2. Pre-test

The researcher gave the test twice are : pr-test and post-test
Before the teacher explain the material by using animal images media, the teacher gave pre-test to experimental and control class in the same way. Pre test used by the writer to know the students ability before given a treatment

3. Post-test

In the next meeting, the writer gave a treatment for experimental class that is the teaching writing recount text by using animal images. In other hand, the control class is taught using slide presentation . and in the last meeting, the post-test is given for both classes

4. Documentation

Documentation is a technique of data collection by gathering and analyzing documents, whether written documents, picture, and electronic.

F. Techniques of Data Collection

In educational research achievement tests are most commonly used. Will know the achievement of the students writing using the test and with the test is to measure of students' ability

The researcher should be select one of collecting data. And based on the following explanation, the researcher will take the test that divided into two ways, they are pre-test and post-test. Pre-test is before doing the treatment, while post test is the test after doing the treatment.

G. Techniques of Data Analysis

1. Data Collection

To get specific data related to the problem of the research uses two kinds of the test.

- a. Test : The researcher will give the test to the experiment class and control class. The test are writing paragraph test based on descriptive text. And the tests consist of pre-test and post-test.
- b. Pretest : The pretest will be administered at beginning of the course in order to find out the initial between control group and experimental group.
- c. Posttest : Posttest will be carried out in order to cheeck the differences between two groups (control group and experiment group). After the researcher give the treatment.
- d. Documentation : The researcher observed the data of student dealing with the total number of the students of Mts Al-Mubarak Serang. The reseacrher also might will take some other document needed in this reseach such as the record of the students achievement in writing ability.

2. Data Analysis

To analyzed the quantitative data, the result scores of the pre-test before the reseacrth was done were then analyzed whether their writing result were reaching the minimum standard or not, and having improvement or not.

After the reseacrher getting the data from pre-test and post-test, the researcher will use formula “t” test. “t” test is one statistic test, that used to test the validity of null hypotesis that assert between two means of sample

that randomly thae from the same population.⁴ “t” test is test that usually used for experimental method.

Calculated T-test : To calculated t-test, the resecearcher used the formula stated by Suharsimi Arikunto as follows :

1. Analyze the result by using calculation of t-test as follow :

$$t = \frac{M1 - M2}{\sqrt{\frac{(\sum X1^2 + X2^2)(N_1 + N_2)}{(N1 + N2 - 2)N_1 - N_2}}}$$

Notes :

M1 = Mean of experimental class

M2 = Mean of control class

X1 = Standard Deviation of experimental class

X2 = Standard Deviation of control class

N1 = Number of students Experiment Class

N2 = Number of students Experiment Class

⁴ Suharsimi Arikunto, *prosedur penelitian suatu pendekatan praktik*. 354.