CHAPTER III

RESEARCH METHOD

In this chapter the researcher is going to present research methodology, it includes the methodology, population and sample, hypothesis, research design, research procedure, data collection techniques, and data analysis.

A. The Methodology

The researcher uses aproximation approach quantitative research and quasi experimental approach with design "one group pretest- treatment - posttest design". This study is conducted on one class, because the consideration of the class and the schedule. Therefore, quasi experimental design is used. Quasi experimental is an experiment conducted without controlling for variables that affect.

Quasi experimental design are similar to true experiments in every respect except they do not random assignment to create the comparisons from which treatment caused change is inferred[37]. To find out the result, the writer uses statistic for data analysis t-test. Parametric statistics is used to

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[37] Zoltan Dornyei, *researcher method in applied linguistics*, (2007). P.117

know the result of the hypothesis. The tests compare the average of two samples with the interval.[38]

B. Population and Sample

This study is conducted at Mts Banu Hasyim, Sidoarjo. It takes place at jln. Brigjen katamso No 100 Waru. The populations are students of the seventh grade. There are 31 students of the seventh grade.

C. Hypothesis

In this research, the hypotheses are stated:

- Ha : interactive CD as a teaching media can significantly improve the student's English vocabulary mastery.

- Ho : interactive CD as a teaching media cannot significantly improve the student's English vocabulary mastery.

D. Data Collection Techniques

Pretest-posttest and documentation are used to collect the data. Observation is used to get data about all of things surround the class and activities that support the use of interactive CD. The researcher does the observation when the writer takes the preliminary study at the school. The data from the observation helps the writer to determine the sample of the

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[38]Ibid. P. 117

research. The pretest-posttest is used to know the result of the vocabulary test.

E. Research Design

The researcher needs two ways to manage the design of the research. There are determining the problem and collecting the data. To collect the data the researcher gives the pretest to measure students' vocabulary mastery before using interactive CD and postests to measure students' vocabulary mastery after using interactive CD. Researcher compares the pretest and postest score to determine the mean differences before and after using interactive CD as a teaching media.

a. Determining the problem

The researcher takes the preliminary study of the impact of using interactive CD for improving vocabulary mastery seventh grade of Mts Banu Hasyim, Sidoarjo.

b. Collecting data

The researcher uses some procedures to collect the data about the impact of using interactive CD for improving vocabulary mastery for the seventh grade of Mts Banu Hasyim, Sidoarjo. The procedures applied are stated below:

a) The first step, the researcher goes to the head master of Mts Banu Hasyim, Sidoarjo and the teacher of English subject to ask for the permission.

b) The second, the researcher gives pretest to measure students vocabulary mastery before using interactive CD as a teaching media.

c) The third, the researcher gives treatment for students by using interactive CD as a teaching media.

d) The fourth, the researcher gives posttest to measure students vocabulary mastery after using interactive CD as a teaching media.

e) The fifth, the researcher compares the pretest and posttest score to determine the mean differences before and after using interactive CD as a teaching media.

f) The sixth, the researcher uses "t- test" to test the hypothesis.

g) The last, the researcher interprets the result and the researcher gives conclusion.

F. Research Procedure

a. Preparation steps

Preparation step is the first step which is done before doing the research. Those are:

a) Making the proposal

Making proposal is the first step of doing the research.

b) Choosing the research setting

The researcher is chosen the research setting at Mts Banu Hasyim, Sidoarjo.

c) Making the research instrument

Research instrument is very important in the research. By using instrument, the research data will be easier to be collected based on the requirement. In this research, the instrument is written test.

b. Research implementation steps

a) Doing pretest

The writer gives pretest to know student's vocabulary mastery before the writer gives treatment. Pretest is given for the students which have purpose to know the students' competence in mastering English vocabulary before the use of interactive CD. The pretest consists of 20 questions which use twotypes of question. The first type of questions consists of 10 gaps filling and 10 multiple choices.

b) Giving Treatment

The researcher posts the video, picture that is related to the topic by interactive CD . Next, the researcher gives task about the topic to help the students to memorize the vocabulary. Writer give the treatment four times.

c) Doing Posttest

Posttest is given for the students which has purpose to know the improvement of students' competence in mastering English vocabulary after the use of interactive CD as a teaching media. Posttest is done after giving treatment.

G. Data Analysis

The researcher uses statistics to analyze the data. Parametric statistics is used to know the result of the hypothesis. The test is compared with the average of two samples with the interval. It means two sample that have the same of population and sample in the different time.[39]

In this research, the researcher wants to know the improvement of the different mean. So, the researcher uses t-test to test the hypothesis. According to Suharsimi Arikunto, the t-test formula can be used to analyze pre-experimental results using a pretest and posttest with one group design[40]. The formula is used in the t-test formula is:

$$t = \frac{Md}{\sqrt{\dfrac{\sum x^2\,d}{N\,(N-1)}}}$$

[39] Sugiyono. *Statistika untuk Penelitian.* (Penerbit Alfabeta: Bandung. 2010). P.127
[40] Suharsimi Arikunto. *Prosedur Penelitian: Suatu Pendekatan Praktik*. (Jakarta: PT Rineka Cipta. 2010.) P.349

Notes;

Md = Mean from difference of pretest and posttest

xd = Deviation of each subject (d-Md)

$\sum x^2 d$ = The squared deviations

N = Subject of sample

d.b = Determined by N-1

The researcher calculates the data by using t-test formula and the result is compared to the critical t which can be taken from a table of critical values with the following criteria:

- If the observed t is higher than the critical t, it means Ho is rejected. (null hypothesis)

- If the observed t is less than the critical t, it means Ho is accepted. (null hypothesis)

Finally, the data is interpreted to design the conclusion.