CHAPTER III

METHODOLOGY OF RESEARCH

A. Research Method

In this research, the researcher will use quantitative method. The researcher use quantitative method because quantitative method is relevant for this research, and the researcher will use many statistics and number, that's why quantitative is match in analyze and collect the data. Researcher will use a Quasi-experimental in this research to analyze the effectiveness of Online dictionary in teaching reading descriptive text. David nunan states "The characteristic of quasi-experimental has both pre- and posttests and experimental and control groups, but no random assignment of subjects."[1].

So the researcher will determine which one is the control class and which one is the experimental class. This research designed to enable the researcher to extrapolate the outcomes of the research from the sample to the broader population. This research will compare the

---

[1] David Nunan, *Research Methods in Language Learning,* 41.

activity of using online dictionary towards an experimental group. Then the last result will be analyzed and compared using statistical calculation.

B. The Place and Time of Study

This research will be conducted on the ten grade at SMAN 1 Ciomas. This research will be conducted on second semester in academic year 2018/2019.

C. Population and Sample

In quantitative research, "population is defined as the generalization region consisting of objects / subjects that have certain qualities and characteristics set by the researchers to be studied and drawn conclusions then. While the sample is part of that population".[2]

The Population of this research is ten grade students of SMAN 1 Ciomas. Because the population is too large and the research use quasi-experimental, so the researcher only use two classes of ten grade SMAN 1 Ciomas.

---

[2] Sugiyono, *Metode Penelitian Pendidikan,*, 297.

The researcher took only 60 of students at ten grade. The writer took two classes as sample for the research. The first class is X IPA3, that class as experimental class which consists of 30 students and they were taught reading descriptive text using online dictionary. And the second one is X IPA4, that class as control class which consists of 30 students and they were taught reading descriptive text using traditional method.

D. The Technique of Data Collecting

1. Pretest

Before determine which one will be experimental class and control class, the researcher will provide a test to both of the class. This way is to knowing reading skill between both of the classes and to measure the classes. The researcher will give the same test to the students. The material of the test is anything about reading based on the syllabus and lesson plane. The researcher will ask the students to do the exercise and then the high score will be experimental class and the other will be control class.

2. Post test

In the end of the meeting, Posttest will be applied in both of the classes. The test that will be faced in both of the class is to know the students' reading skill between experimental and control classes with different treatment. In providing the test, the control class will use traditional dictionary while experimental class will use online dictionary in learning reading. After scoring the test both two classes will be analyzed and calculated.

E. 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".[3] "The T-test is one of the comparative analysis techniques used to test the truth, whether there is a difference between two or more

---

[3] Anas Sujiono, *Pengertian Statistik Pendidikan,* (Jakarta: Raja Grafindo Persada, 2012), 278.

variables under investigation".[4] 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 researcher analyzes the data based on the collected score data of pretest and posttest of experimental class and control class. In the other hand, the researcher also analyzes the score of students learning activity which written on the sheet of students' observation. The steps for statistical analyze that are:

a. Determining mean of variable x with formula:

$$M_1 = \frac{\Sigma x}{n1}$$

b. Determining mean of variable y with formula:

$$M_2 = \frac{\Sigma y}{n2}$$

c. Determining derivation score variable X with formula:

$$x = x - m_1$$

---

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

d. Determining derivation score variable x2 with formula:

$y = y-m_2$

After collecting the data from pre-test and post-test, the researcher analyze it by using statistic calculation of t-test by using fisher formula with significant degree 5% and 1%. The formula is as follow:

$$t_o = \frac{mx-my}{\sqrt{\left(\frac{\sum X2+\sum Y2}{N1+N2-2}\right)\left(\frac{N1+N2}{N1.N2}\right)}}$$

Notes:

M_1 = Mean score of the experimental class

M_2 = Mean score of the control class

x^2 = sum square of deviation score in experimental class

y^2 = sum of deviation score in control class

N_1 = number of students of experimental class

N_2 = number of students of control class

2 = Constant number

df = degree of freedom (df = N_1+N_2-2)