

CHAPTER III

METHODOLOGY OF THE RESEARCH

A. The Method of Research

Method is a way to conduct something in order to get the purpose or the goal as expect. In this research the writer using quantitative approach and using a quasi experiment method. The aim of a quasi experiment research is to know the cause-and-effect relationship from independent variable with dependent variable.

Experiment is a produce for testing a hypothesis by setting up a situation in which the strength of relationship between variables can be tested.¹ Experimental research is unique in two very important respects: It is the only type of research that directly attempts to influence a particular variable, and when properly applied, it is the best type for testing hypotheses about cause-and-effect relationships.²

There are three types of experiment such as:³

- a) Pre-experiment: may have pre- and post treatment tests, but lack a control group
- b) Quasi-experiment: has both pre- and post test and experimental and control groups, but no random assignment of subject
- c) True-experiment: has both pre- and post tests, experimental and control groups, and random assignment of subject

¹David Nunan, *Research Methods in Language Learning*, (New York: Cambridge University Press, 1992), 230.

²Jack R. Fraenkel and Norman E. Wallen, *How To Design And Evaluate Research In Education*, (New York: McGraw Hill Companies, Inc, 2008), p. 261

³ Nunan. *Research Methods in Language Learning* , 41.

It is different with qualitative research because it relies on deductive than heuristic. In this research the writer use a quasi-experimental method. This design is represent as follow:

R1 O1 X O2

R2 O1 O2

R1 : Experiment Group

R2 : Controlled Group

O1 : Pre test

O2 : Post test

X : Treatment

----- : The groups are not randomly formed

B. Place and Time

In this case the writer choose the place for thisexperimental at the first year of SMA N 1 Petir which the located at Jl. Raya Baros-Petir Km. 12 Kabupaten Serang Provinsi Banten. Time for researcher do the experiment on April 2016. In this research the writer would find out the effectiveness of smart card in developing student's writing recount text.

C. Population

According to Suharsimi Arikunto, population is the subject of the total research.⁴ Nunan says that "Population is all cases, situations or individuals who share one or more characteristics of interest can be widely depending on the research question and the purpose of the research"⁵. It means population is a research subject. The population of this research is the first grade of students' senior high school SMA N 1 Petir. They are 180 students.

D. Sample

Sample is a portion of a population.⁶ The first grades of students' senior high school SMA N 1 Petir are two classes they are 60 students. Then, the writer chooses the first class (X 7) is 30 students for control class, and the last for experiment class (X 8) is 30 students.

E. Research Instrument

Research instrument is a facility used by the writer in collecting data. The test instrument of the research uses a writing test. Pre-test will be given to the experiment class to find out the initial differences between the group of students who have a similar level of writing. After getting the result of several statements, the writer administered the post-test. The post-test will be given to find out if there are any differences between both groups as a result of some treatment given. The aim of the research is to find out the use of "Smart Card" to improve students' writing skills.

The procedure of the test using smart card :

⁴Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktek*, (Jakarta: Rineka Cipta, 2013), 173.

⁵Nunan. *Research Methods in Language Learning*, 231.

⁶Nunan, *Research Methods in Language Learning* 174.

1. Choose the theme
2. Choose the key words
3. Write the recount text

The type of test is writing test. The writer will assess of the test by using writing test rating sheet. There are five components to measure score writing.

No	Name	Score					Total
		Content (31-27)	Organization (20-7)	Vocabulary (20-7)	Language (25-5)	Mechanics (5-2)	
1.							
2.							
3.							

F. The Technique of Data Collecting

After the writer decide to choose the method in this research. It is determine where is and what is the technique use to get the data. In this research she use the test technique:

a. Observation

Observation is data collecting technique through observes this systematically toward phenomena that to be researching. In this case the writer observes or monitored the condition of the class while teaching learning process in field and also the school environment of SMA N 1 Petir. The activity of observation is focused in the technique or method of writing teaching and students' writing skill in recount text

b. Test

The researcher use pre test and post test as an instrument to know students' score of writing recount text. The writer takes the

students' score for collecting data. Pre test and post test doing at both class to compare the result of two groups. After pre test she give treatment using Smart Card technique in class of X 8 for experiment class and using conventional method in class X 7 for the control class. Forms of test is make a text about recount text.

G. The Technique of Data Analyzing

The writer got two data. The first data is the result of pre-test and the second data is the result of posttest. The technique of analyzing data, the writer used step as follow:

1. The result of post test in experiment class is named variable (X1)
2. The result of post test in control class is named variable (X2)

After getting the data from pre-test and posttest, the writer analyzes it by using statistic calculation of T-Test formula with the degree of significance 5% and 1% the formula as follow:

1. Determine mean of variable X1 with formula :

$$M_1 = \frac{\Sigma X_1}{N_1}$$

2. Determine mean of variable X2 with formula :

$$M_2 = \frac{\Sigma X_2}{N_2}$$

3. Determine deviation score variable X1 with formula :

$$x_1 = X_1 - M_1$$

4. Determine deviation sore variable X2 with formula :

$$x_2 = X_2 - M_2$$

$$df = N_1 + N_2 - 2$$

The conclusion from this research can be seen from the result of the t^0 :

$$t_0 = \frac{M_1 - M_2}{\sqrt{\frac{(\sum X_1^2 + \sum X_2^2)(N_1 + N_2)}{(N_1 + N_2 - 2) N_1 \cdot N_2}}}$$

M_1 = Gained score of the data experiment class.

M_2 = Gained score of the data control class

$\sum X_1^2$ = Sum of square deviation of experiment class

$\sum X_2^2$ = Sum of square deviation of control class

N_1 = The numbers of students experiment class

N_2 = The numbers of students control class

\sum_{x_i} df = Degree of freedom

\sum_{x_i}

H. The Hypothesis

Hypothesis is a temporary assumption about a problem, according to Suharsimi Arikunto "Hypothesis is a temporary answered forward a research problem by collecting data in research".⁷ Hypothesis is guessed or while answer about object of the research until all the data have been collected.

The formulation of hypothesis in this research can be formulated as follow:

1. Ho (null hypothesis) there is no significant influence between improving recount text ability by using smart card. It means that

⁷ Nunan, *Research Methods in Language Learning*, 64.

students taught by smart card doesn't get more significant effectiveness improving in average score than students taught by any other media

2. H_a (alternative hypothesis) there is significant influence between improving writing recount text ability by using smart card. It means that students taught by using smart card get more significant effectiveness improving in average score than students taught by any other media.