CHAPTER III

RESEARCH METHOD

This chapter describes (1) The method of the study, (2) variable of the study, (3) population and sample, (4) research instrument, (5) technique for collecting the data (6) technique of analyzing the data

A. Method of the Study

The method used in conducting this study is experimental method. Ari says, "An experimental is a functional research design whose purpose is to explain the impact of certain input variable on other outcome variables."[46]

In this study employs two groups, they are experimental group and control groups. The experimental group is given some treatments and the control group is not given some treatments. These two groups are given the same materials and the same test to measure the difference of mean score of these two groups in reading comprehension.

[46] Arikunto, Suharsimi.. *Procedure Penelitian: Suatu Pendekatan* Praktek. (Jakarta: Rineka Cipta. 1998)

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B. Variable of the Study

There are two kinds of variables in this research: independent variable and dependent variable. Independent variable is the variable which is influence other variables, dependent variable is the variable which is affected by the independent variable.[47] The independent variable of this research is the lexical simplification technique and the dependent variable is the students' reading comprehension achievement.

C. Population and Sample

1. Population

Population is all possible units or elements that can be included in research study. Population is the group to which a researcher would like the result of the study to be generalized and which includes the entire individual with certain characteristics. The population of this study is the second year students of science of SMA Negeri 1 Krian in the academic year of 2009/2010. This school consists of seven classes. Each class consists of 34 students.

2. Sample

Sample is part of population which describes the condition or characteristic of population. To get the sample of this study, the writer took

[47] Arikunto. *Prosedur Penelitian* (Jakarta: Renika Cipta 2002). P. 97

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two classes which have almost the same characteristics. The writer took science 4 class and science 7 class because the number of the students was the same and both classes were taught by the same teacher of English. To decide which class would be the control group and which to be the experimental group, the writer flipped a coin.

D. Research Instrument

In this research, the writer uses some tests as treatment to collect the data. The researcher uses test in order to enable him to observe and gather any information on what was going on in the class when the "lexical simplification" arrived by the students. The instruments are reading comprehension text and consist of some questions related to the text. At the end of the meeting of treatment, the researcher gives the final test to know the effect of lexical simplification in reading comprehension.

1. Pre-experiment stage

Before coming to the experiment stage, the writer held the pre-experimental stage by offering try-out test. This test is given to the second year student. The test is reading comprehensions text with some questions. The time need is 75 minutes.

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2. The Treatment

The writer gives 3 treatments to the students both experimental and control groups. The experimental group is given the lexical simplification reading text and the control group is given the original text of reading text. The reading text consists of some questions which related to the text. During the treatment, the teacher gives some simplification passages to experimental group and original text to the control group. The students do some questions which related to the text, the treatments are done in 75 minutes for each meeting. The topics are adopted from the line of curriculum in that school.

E. Technique of Collecting Data

In this research, the writer collects the data from the test. The researcher makes a final test to the experimental and control groups. It is used to give information about student's reading comprehension in text before the treatment.

F. Technique of Analyzing Data

After collecting the data from the treatment of experimental and control groups, the writer tries to find out the differences score between experimental and control groups. He analyzes the data by using statistical calculation of ***t – Test*** to find out weather the differences of the score between them is significant

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or not[48]. There are two formulas used by the writer[49]. First, to analyze the significance difference between the result of pre-test and post-test.

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

Where:

t : the t-ratio

Md : mean from the different pre-test and post-test

xd : the deviation of each subject (d-Md)

$\sum x^2 d$: the sum deviation square

N : subject on the sample

$$Md = \frac{\sum d}{N}$$

The formula to calculate of the final test scores of experiment group

$$SD_{\text{experiment group(x1)}} = \sqrt{\frac{\sum d^2}{N}}$$

The formula to calculate of the final test scores of experiment group

$$SD_{\text{control group(x2)}} = \sqrt{\frac{\sum d^2}{N}}$$

[48] Arikunto. *Prosedur Penelitian* (Jakarta: Renika Cipta 2002). P. 263
[49] Ibid.

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The last formula t-test, the writer uses to analyze the significance difference score both group.

$$t = \frac{Mx - My}{s}$$

Where:

Mx : mean score of experimental group

My : mean score of control group

$$s = \sqrt{\frac{\sum x^2 + \sum y^2}{Nx + Ny - 2}\left(\frac{1}{Nx} + \frac{1}{Ny}\right)}$$

df= N1 + N2 – 2

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