

CHAPTER III

RESEARCH METHODOLOGY

A. Time and place of the Research

The research will be conducted by the writer at seventh grade of MTsN 1 Pandeglang. Which is located in street Kadulisung - Labuan.

The writer will conduct this research in academic year of 2018/ 2019 until this research is finished.

The reason for choosing, this school more:

1. The writer knows a little about the situation and the students because the writer did microteaching II there.
2. Identify the problem to be researched is found in this school especially at seventh grade because most of them only have a little vocabularies.

B. Research Method

In Grotjahn's terms, the experimental method is basically a collection of research designs, guidelines of using them, principles and procedures for determining statistical significance, and criteria for determining the quality of a study. The experimental method is part of the psychometric tradition, and it is also referred to as the scientific method. For some researchers, the experimental method is the premier method, all others being 'ground clearing' operations, that is,

preliminary data collection and interpretation exercises to prepare for a formal experiment¹.

There are four experimental research designs. They are, the pre-experimental designs are the weakest, followed by the quasi-experimental designs and then the ex post facto designs. The true experimental designs are the strongest. Within the culture of experimental research, this relative strength is a function of increasing control over variables. The stronger designs are those with the greatest internal and external validity². Major design and classes of research designs in experimental research stated by Shavelson:

1. Pre-Experimental Class
 - a. One-Shot Case Study
 - b. One-Group Pre-Test Post-Test Design
 - c. Intact Group Design
2. Quasi-Experimental Class
 - a. Nonequivalent Control (or Comparison) Group Design
 - b. Time Series Design
 - c. Equivalent Time Samples Design
3. True Experimental Class
 - a. Post-test Only Control Group Design
 - b. Pre-test Post-test Control Group Design

¹ David Nunan, Kathleen M. Bailey, *Exploring Second Language Classroom Research*, (Sherrisse Roehr, 2009), 83

² Nunan & Bailey, *Exploring Second Language Classroom Research*, 100.

4. Ex Post Facto Class

a. Criterion Group Design

b. Correlation Design

In this research, the writer uses quasi experiment method by using “nonequivalent control (or comparison) group design”, where the writer will do an experiment in two classes as control class and experiment class. The experimental class consists of the students who are given the reading for pleasure activity and the control class without reading for pleasure activity. In this research, the writer determined the quantitative research.

C. Population and Sample

The population in this research is students’ at the seventh grade of MTsN 1 Pandeglang which is divided into ten classes which are 5 excellent class and 5 regular class. In this grade, the amounts of students are 336. The writer chooses 5 regular class that amount 180 students as population then chooses VII-J as the experimental class and VII-I as the control class that each class contains 33 students as the sample to be researched.

The sample is taken by using non-probability sample which sample derives from the researcher targeting a particular group, in the full knowledge that it does

not represent the wider population; it simply represents itself. This is frequently the case in small-scale research.³

D. Research Variable

In this study, there are one independent variable and one dependent variable. The independent variable is “Reading for Pleasure”, while the dependent variable is “Students’ Vocabulary Acquisition”. The hypothesis of this study which is going to be proven is: The Effectiveness of Reading for Pleasure on Students’ Vocabulary Acquisition.

E. The Instrument of the Research

The writer uses two instruments, observation and test. Observation uses to observe the students and the writer as the teacher, while the teaching-learning process. Whereas for the test, the writer uses written test, it is divided into pre-test and post-test, the writer gives pre-test in the first meeting and post-test in the last meeting. The writer designs the items for vocabulary test and used the the individually test.

A test, in a simple terms, is a method of measuring person’s ability, knowledge, or performance in a given domain. The component of the definition, a test is first a method. It is an instrument, a set of techniques, procedures, or items that requires performance on the part of the test taker. Second, a test must measure.

³ Louis Cohen, Lawrence Manion, and Keith Morrison, *Research Methods in Education*, (New York: Routledge, 2007), 112.

Some tests measure general ability, while others focus on very specific competencies or objectives. Next, a test measures an individual's ability, knowledge, or performance. Finally, a test measures a given domain⁴.

F. The Technique of Data Collecting

The most important thing in this research is collecting the data that can determine the result of the research. Some techniques are used in collecting data in this research are:

1. Observation

In this research, the writer plays as a teacher. While implementing the research, a research observed by English teacher of VII grade. The observer observes students and teacher in teaching learning process.

2. Test

a) Pre-test

The writer gives the pre-test to the students. The pre-test is in written test form. The test consists of 10 matching tests, 10 filling incomplete words tests, 5 making sentence tests from 5 words that has had been attended, and 5 making sentence tests from 5 words that students has got from text that they have ever read. The writer gives the questions to the students individually and the students have to answer the questions.

⁴ H. Douglas Brown, *Language Assessment Principle and Classroom Practice*, (San Fransisco: Pearson Education, 2004), 3.

b) Post-test

The last step, the writer gives the post test after treatment has been done by using reading for pleasure. The realization of the post-test will be same with pre-test.

G. The Technique of Data Analysis

To analyze the data, the writer uses the comparative technique. The writer analyze and compare the score of post-test between experiment class and control class. This technique is useful to prove statistically, whether there are any significant differences between the student's scores before get the treatment and after get the treatment.

In analyzing the data from pre-test and post test, the writer used the statistical formulation of t-test formula⁵.

1. Determine Mean of Variable X :

$$M_X = \frac{\Sigma X}{N_X}$$

2. Determine Mean of Variable Y :

$$M_Y = \frac{\Sigma Y}{N_Y}$$

3. Determine Standard Deviation of Variable X:

$$SD_X = \sqrt{\frac{\Sigma X^2}{N_Y}}$$

⁵ Prof. Dr. Anas Sudijono, *Statistika Penelitian*, (Jakarta: PT. Raja Grapindo Persada, 2004). 315.

4. Determine Standard Deviation of Variable Y:

$$SD_Y = \sqrt{\frac{\Sigma X^2}{N_Y}}$$

5. Determine Standard Error of Mean Variable X:

$$SE_{M_X} = \frac{SD_Y}{\sqrt{N_Y - 1}}$$

6. Determine Standard Error of Mean Variable Y:

$$SE_{M_Y} = \frac{SD_Y}{\sqrt{N_Y - 1}}$$

7. Determine Standard Error of the differences between Mean Variable X and Mean Variable Y, by pattern is:

$$SE_{M_X - M_Y} = \sqrt{SE_{M_X}^2 + SE_{M_Y}^2}$$

8. Determine t_0 by the pattern is:

$$t_0 = \frac{M_X - M_Y}{SE_{M_X - M_Y}}$$

9. Determine the degrees of freedom (df) by pattern is:

$$df = (N_X + N_Y) - 2$$

10. Give the interpretation towards t_0 by the following procedure:

- a. Formulate the alternative hypotheses (H_a): "There is different Mean that is significant between Variable X and Variable Y."
- b. Formulate the null hypotheses (H_0): "There is no different Mean that is significant between Variable X and Variable Y."

11. Compare t of the calculation result (t_0) and t that attached in the table of value (t_t). Find t_t on significance level 5% and significance level 1%.

H. Statistical Hypotheses

To prove the hypotheses, the data obtained from pre-test and post-test is calculated by using t-test formula with the assumption as follows:

$t_0 > t_t$: The alternative hypotheses (H_a) is accepted and the null hypotheses (H_0) is rejected. It means there is significant difference on students' vocabulary acquisition teach by reading for pleasure. It means that reading for pleasure is an effective technique in teaching vocabulary.

$t_0 < t_t$: The alternative hypotheses (H_a) is rejected and the null hypotheses (H_0) is accepted. It means there is no significant difference on students' vocabulary acquisition taught by reading for pleasure. It means that reading for pleasure is not an effective technique in teaching vocabulary.

Note:

H_a = The Alternative Hypotheses

H_0 = The Null Hypotheses

t_0 = The Value of t Observation

t_t = The Value of t Table