

CHAPTER III

METHODOLOGY OF THE RESEARCH

A. Research Method

The research is conducted experimental research, where according to David Nunan "experimental is a procedure for testing a hypothesis by setting up a situation in which the strength of the relationship between variables can be tested".¹ such as a teaching method and test scores on a formal test of language proficiency. Its conclusion experiment is an activity which intend in planning and conducting certain to with a purpose to use problems. Activities specify what learners will actually do with the input which forms the point of departure for the learning task.²

There were three kinds of experimental research, such as:

A true experiment consist of a control and experiment groups. A pre-experiment may have pre and post treatment tests, but lacks of a control group. A quasi experiment has both pre-and posttest, and experiment and control group, but no random assignment of subject.

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

² David Nunan, *Designing Tasks For The Communicative Classroom*, (New York: Cambridge University Press, 1989), 34.

In this research, the writer will be use a quasi experimental method, where quasi experimental designs have tree basic characteristics, there are: "has both pre- and posttest and experimental and control group, but no random assignment of subjects". These research uses experimental method. The experiment research can be defined as systematic method to build relation which consist of phenomena casual effect relationship. This research is intended to investigate whether there is significant influence of using various pictures in teaching reading explanation text at first year students of junior high school Nasyrul 'U lum Cilegon. In these experiment, the researcher divide the class into two groups. One class is control class and the other one is experimental class. The research perform three times meeting in each class.

B. Time and Location

In this study the research were carried out at junior high school Nasyrul 'U lum Cilegon, for complete address is Jl. Pabean No. 5 Kel. Tegal Bunder, Kec. Purwakarta, Kota Cilegon - Banten. The observation and research will do until two month. Junior high

school Nasyrul 'U lum Cilegon with the strategies location, easy to visit is only 20 meters from my home.

C. Population and Sample

Population defined as a collection or the whole object to be studied.³ Population is all members of will defined class of people, events or subject that live together in one place and is planned to become conclusion of research. Population of these are research The population in this research is use first grade students M ts Nasyrul 'U lum Cilegon. There are 88 students divided into 3 class.

In taking samples, the writer doesn't use the random sampling method to get the data from two class at the first grade of junior high school. The total students who took part of the researcher was 50 students at the first grade in Nasyrul 'U lum from VII A and VII B as control class, it consist of each class 25 students.

In this research the writer uses quasi-experiment. In other word in taking sample no randomly and choose class VII A as experiment class and student from VII B as control class, it is amount of each class are 25 student.

³ Gunawan Muhammad Ali, *Statistik Penelitian Bidang Pendidikan, Psikologi dan Social*, (Yogyakarta: Parama Publishing, 2015), 45.

D. The Research Instrument

Research instrument is a facility that used by researcher in collecting data, researcher uses research instrument to know the students skills. Test is a method of measuring person's ability or knowledge a given domain. Data is important in the field research. The data will give the research information about the respondent.

Research using picture books as a learning medium. Researcher using picture books and then copying a short story from picture books and distributed to the each person in the class. By doing so, students can read the text correctly and students can understand the message conveyed from the story.

E. Data Collection and Data Analysis

1. Data Collection

In this research, the writer determined the quantitative research, it means that the writer collect data from the field and most go to the place of research. For gaining the data needed, the writer used test technique as instrument of this research.

The writer used written test technique to determine the student's achievement in reading comprehension for the first grade student of Mts Nasyrul 'Ulum Cilegon. The test will be

presented to those students who learn English on literacy subject as sample of this investigation.

a) Test

Test is a method of measuring a person's ability, knowledge, or performance in a given domain".⁴ It is an instrument a set of techniques, procedures, or items that requires performance on the part of the test taker. " a test measures individual's ability, knowledge and performance".⁵

In collecting the data, the researcher do pretest and posttest. Pretest and posttest are related to the lesson theme which that have been taught before.

1. Pre-Test.

Pre-test means a test which administered of course of study. In the pretest, Students are given a topic or title to reading the text. Pretest group which students are instructed to reading the text and asking what they understand from the text without the use of picture books.

⁴ Brown H. Douglas., *Language Assessment Principle and Classroom Practices*, (San Francisco: Longman, 2003), 3.

⁵ Ibid .

2. Post-Test

Post test means test which administered at the end of the study or after giving treatment in order to find out the results of treatment. Post test administered after treatments to find out what are the aspects of literacy are improved by using of picture books. It could be seen from the average scores of pretest and posttest.

2. Technique of Data Analysis

To analyze the data has been collected using test, the researcher compares the result of both the post-test, experiment class and control class students. To find out the differences of test using picture books and to find out the effectiveness of the test not use the picture books for students literacy, in analysis the data comprises following:

- a. Checking the name and identify the respondent.
- b. Checking the content of instrument data collecting
- c. Scoring the items use objective answer by writing test.
- d. Determining the class interval

After collecting the data, the researcher analyzed them in order to find out whether there was an improvement in the students literacy achievement or not after the treatment. The researcher used repeated measure T-test to find out the improvement of the treatment effect.

The steps for statistic analyze are :

- 1) Determining mean of (pre-test) variable X_1 (treatment class):

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

- 2) Determining mean of (pre-test) variable Y_1 (control class):

$$M_1 = \frac{\sum Y_1}{N_1}$$

- 3) Determining mean of (post-test) variable X_2 (treatment class):

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

- 4) Determining mean of (post-test) variable Y_2 (control class):

$$M_2 = \frac{\sum Y_2}{N_2}$$

- 5) Determining deviation score variable X_1 with formula

$$X_1 = X_1 - M_2$$

- 6) Determining deviation score variable X_2 with formula

$$X_2 = X_2 - M_2$$

- 7) Determining degree of freedom with formula

$$Df = N_1 + N_2 - 2$$

- 8) Determining the significantly using t - test and comparing the result of t - test with t table:

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

M_1 : Gained score of the experiment class

M_2 : gained score of 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 : samples of students of experiment class

N_2 : samples of students of control class⁶

After getting the data from the observation pre-test and post-test, they are analyzed and processed by using statistic calculation of the t-test formula with the significance degree 5% and 1% (0,05 or 0,01). The formula of t-test using fisher formula is as follow.

⁶ Darwyan Syah, *et al.*, *Pengantar Statistik Pendidikan*. (Jakarta : Haja M andiri, 2011), 105.