

CHAPTER III

METHODOLOGY OF RESEARCH

A. Research Method

In this research, the writer uses the experimental research, to know the research to improving of students' reading comprehension through PORPE strategy. This research the research determined the quantitative research its means that the writer collects data from the field, and must go to the place of research, because "quantitative research is obtrusive and controlled objective, generalizable, outcome oriented and assume the existence of fact which are somehow external to and independent of the observer or research".¹ Moreover, in this research the writer uses quasi-experiment because in this research there will be pre-test and post-test to get the data. Two classes which involved in this research, it is experimental class and control class. The experimental class, consist of the students who received treatment. However, the control class was not.

¹David Nunam, *Research Method in Language Learning* (Cambridge: Cambridge University Press, 1993), 3.

Both classes received a pre-test on whatever instrument has been given.

B. Place and Time

This research is going to conduct in MTS Al-Rahmah, it is located in Lebak Wangi-Walantaka, Serang-Banten, Al-Rahmah is one of the formal education institutions located in Lebak Wangi-Walantaka. The writer began the research on 23 – 27 July 2018

C. Population and Sample

a. Population

Population is all persons, who obtained a permit.² Population is all cases, situations or individuals who share one or more characteristics”. The population in this research is the students of class VIII of MTS Al-Rahmah. Class VIII students of this school are 104 students. They are divided into class VIII A, B, C, and D. Each consists of 26 students.

²Garton, Edward O, John T. Ratti, and John H. Giudice. *Research and Experimental Design*, (The Wildlife Society, Bethesda: MD Preprint, 2004), 13.

b. Sample

Sample is a smaller unit of habitat is more likely to be logistically feasible.³ A sample is a group in research study on which information is obtained. Sample is smaller than population. Because this research use one group pretest and posttest, so, the writer choose class of second grade VIII A as experiment class and VIII B as control class. Each class consists of 26 students.

D. The Research Instrument

Research instrument is instrument or facility that used by the researcher in collecting data. The instrument used for this research is test.

Test is a method of measuring person's ability or knowledge a given domain. The research carries pre-test before giving treatment and post-test after treatment.

³Garton, Edward O, John T. Ratti, and John H. Giudice. *Research and Experimental Design*, 13

E. The Technique of Data Collecting

As the study in tends to improve students' reading comprehension, there are technique to get valid data and objectives information:

Test is a method of measuring person's ability or knowledge in a given domain. The writer conducted a test to collect and to know how far students' ability. In collecting the data, the research do pre test and post test.

1. Pre-test: this test will do before students' given a treatment
2. Post-test: this test will do after students' given a treatment which students will though reading comprehension by using PORPE strategy

F. 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 post-test. 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 post-test, 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 :⁴

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

2. Determine mean of variable X2 with formula :

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

3. Determine deviation score variable X1 with formula :

$$X_1 = X_1 - M_1$$

4. Determine deviation score variable X2 with formula :

$$X_2 = X_2 - M_2$$

$$df = N_1 - N_2 - 2$$

⁴Sudijono, Anas, *Pengantar Statistik Pendidikan*, (Jakarta: Rajawali Pers, 2012), 315

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

Df = Degree of freedom

⁵DarwyanSyah and Supardi, *Pengantar Statistik Pendidikan*, (Jakarta: HAJA Mandiri, 2012), 105-106