

CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

The method of this research is quantitative method. It is often about calculation and analysis of the numerical data. Meanwhile, the design used is a quasi-experimental design. According to David Nunan stated that “Experimental is a procedure for testing a hypothesis by setting up a situation in which the strength of the relationship between variables can be stated.”¹ Then the writer use quasi experimental method, in which the research give certain treatment to experimental class to find whether or not there are significant of difference of students’ reading skill after being treated by using near peer role modeling .

The design is used to examine cause and effect of using near peer role modeling method on students’ reading comprehension of narrative text. In this research, it compares experimental class (where near peer role modeling is applied in learning of narrative text class) and controlled class (where near peer role modeling

¹ David Nunan, *Research Method in Language Learning* (Now York: Cambridge University Press, 1992, p. 230

method is not applied in learning of narrative text class). The effectiveness can be seen by comparing improvement of students' score of experiment class and controlled class of post-test after they have been given treatments by the writer.

B. Place and Time of Research

This research was carried out at Junior High School of Islamic Boarding School of Daarul Muttaqien , which located on Jl. Raya Cadas kukun, Pangadegan, Pasar kemis, Tangerang, Banten. The research was held for three months. It started from January-March 2018 at the second semester of the year of study 2017/2018.

C. Population and Sample

1. Population

According to Suharsimi Arikunto, a population is a set (or collection of all processing one or more attributes of interest.”² So the population is taken of whole subject or person in study to get required data. The population of this study is students of third grade of SMP Daarul Muttaqien Tangerang was 130 students.

² Suharsimi Arikunto, *Prosedur Penelitian*, (Jakarta: Rineka Cipta. 2010, p. 173

2. Sample

The sample for this study was two classes. There are IX-A and class IX-B. Then the researcher manipulates the sample, IX-A as experimental class and IX-B as controlled class. The class IX-A has its member for about 25 students and the class IX-B has 25 students.

D. Instrumentation

The writer gave pre- test before the teaching process and gave post-test after the teaching process was done in five meetings for both classes. The writer compared the achievement of pre-test to identify the effectiveness of using Near peer role modeling and learning in teaching reading. To know the effect of the two methods applied, the test was used. It was made up of: fiveteen multiple choice and five Essay.

E. Technique of Data Collecting

In this research, the writer used the quantitative research approach, so the technique used to get the data which related to the teaching reading by the writer is doing some :

1. Observation

Observation technique is the main technique in collecting the data about teaching-learning process is going on in the real English classroom activities at third class students Junior High School of Daarul Muttaqien Tangerang on January 2018. In this case, the researcher acted as an observer who observed the teaching learning process without being involved in the process. Therefore, this technique can be categorized as non-participant observation.

2. Pre-Test

The data were collected from pre-test and post-test. Before applying the Near Peer Role Modeling strategy in experimental class, the researcher gives the pre-test to experiment and control class in the first meeting to know the initial students' reading comprehension.

3. Post-test

Both experiment and control class will face the post-test after giving the treatment for experimental class. It will be used to measure the effect of near peer role modeling method toward students' reading comprehension.

F. Technique of Data Analysis

The technique of analysis data in this research uses Test-t. According to Agus Sudijono Test-t is used for testing the null hypothesis of the mean differences of two samples.³ Because the quasi experiment use pre-test and post-test then the writer uses this test to measure the final test between experiment class and control class.

The steps for statistic analyze that are⁴ :

- a. Determining mean of variable X1 with formula :

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

- b. Determining mean of variable x2 with formula :

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

- c. Determining derivation score variable x1 with formula :

$$x_1 = X_1 - M_1$$

- d. Determining derivation score variable x2 with formula :

$$x_2 = X_2 - M_2$$

³Anis Sudijono, *Pengantar Statistik Pendidikan*. Jakarta: PT Raja Grafindo, 2014. P. 307

⁴Anis Sudijono, *Pengantar Statistik Pendidikan*. P. 314

After collecting the data from pre-test and post-test, the researcher analyze it by using statistic calculation of t-test by using fisher formula with significance degree 5% and 1%. The formula is as follow :

$$t = \frac{M_1 - M_2}{\sqrt{\left(\frac{\sum x_1^2 + \sum x_2^2}{N_1 + N_2 - 2}\right) \left(\frac{N_1 + N_2}{N_1 \cdot N_2}\right)}}$$

Notes :

M_1 = Mean score of the experiment class

M_2 = Mean score of the control class

$\sum x_1^2$ = Sum of square deviation score in experiment class

$\sum x_2^2$ = Sum of square deviation score in control class

N_1 = Number of students of experiment class

N_2 = Number of students of control class

2 = Constant number

df = Degree of Freedom (df = $N_1 + N_2 - 2$)

G. Statistical Hypothesis

The statistical hypothesis of the research can be seen as:

1. There is no effectiveness of using Near peer role modeling on students' reading achievement of narrative text (**H₀**).

$$\mathbf{H}_0 = \mu_1 = \mu_2$$

2. There is effectiveness of using Near peer role modeling on students' reading achievement of narrative text (\mathbf{H}_a).

$$\mathbf{H}_a = \mu_1 \neq \mu_2$$

Where: \mathbf{H}_0 = Null hypothesis

\mathbf{H}_a = Alternative hypothesis

μ_1 = Students' pre-test achievement

μ_2 = Students' post-test achievement

And then, the criteria used are as follows:

- a. If t-test (t_o) > t-table (t_t) in significant degree of 0.05, \mathbf{H}_0 (null hypothesis) is rejected. It means that the average score rates of the experimental group are higher than the controlled group. In other words, using Near peer role modeling on students' reading achievement of narrative text is effective.
- b. If t-test (t_o) < t-table (t_t) in significant degree of 0.05, \mathbf{H}_0 (null hypothesis) is accepted. It means that the average score rates of the experimental group are same as or lower than the controlled group. In other words, using Near peer role

modeling on students' reading achievement of narrative text is not effective.

H. Research Procedure

In general, the procedure of this research can be described as follows:

1. Provide pre-test of the experimental class and control class
2. Provide treatment to the experimental class using Near peer role modeling method control class without near peer role modeling method as follows :

a. Experimental class

- 1) Preparation
 - a) Preparing the lesson plan
 - b) Preparing the material
 - c) Preparing the narrative text
- 2) Implementation
 - a) Teacher explain the material
 - b) Teacher give the example
 - c) Teacher guide students to make group and give the text to discuss the narrative text

- d) The teacher ask to the students to make question and they have to answer
- e) The students present the answers to another group

b. Controlled class

- 1) preparation
 - a) Preparing the lesson plan
 - b) Preparing the material
- 2) Implementation
 - a) Teacher explain the material
 - b) Teacher give example
 - c) The teacher ask to the student to translate the text
- 3) Provide post-test of the experimental class and control class
- 4) Analyzing the data from pre-test and post-test
- 5) Drawing the interpretation based on the result of test and making conclusion.