

CHAPTER III

METHODOLOGY OF RESEARCH

A. The Method of the Research

The method applied in this research is experimental method. The writer using the experimental research to know the real data that get from the respondent. Experimental method is use here to collect data in such away that threats to the reliability and validity.

Moreover, this research uses quasi experimental design, because the purpose of this research is to find whether there is significant of difference of students' writing ability after given treatment by using two stay two stray technique. Creswell says that, "A quasi experiment is a design, which is widely used in educational setting, in which there is no random assignment of subjects because randomly assigning subjects or students to the groups would disrupt classroom learning."¹ It means quasi experiment is a design of experimental method that assigns sample of treatment group and control group not randomly.

B. Place and Time of Research

The writer chooses research sites at tenth grade of MTs Negeri 1 Kabupaten Serang, it is located in Jl. Ciptayasa No. 250 Kec. Ciruas Kab.

¹ John W. Creswell *Research Approaches, Second Edition*, (Boston: Pe

Serang. This research will be conducted about a months on August 2018 in the first semester of academic year 2018/2019. The reasons why the researcher choose this school because she wants to know how successful English teacher in providing materials and the researcher has a lot to know the problem that happened to student at school especially in writing English which make researcher try to experiment two stay two stray to combined with think talk write method to improve writing skill.

C. Population and Sample

1. Population

The population is taken of whole subject or person in study to get required data. According to David Nunan, “Population is all cases, situation or individuals who share one more characteristic.”² The population of the research is students, especially the third grade of MTsN 1 Serang. There are eight classes in the third grade with 305 students.

2. Sample

The sample of this research is students at third grade of MTs Negeri 1 Serang. The researcher uses two classes to support this research. One class is IX - 1 that consist of 36 students as experimental class and the other one is IX – 2 that consist of 35 students as the control class.

D. Instrument and Technique of Data collecting

² David Nunan, *Research Method In Language Learning*, (New York: Cambridge University Press, 1992), 231.

The techniques of collecting data is observation and test. The researcher was used the observation sheet to observe the teaching and learning writing class.

1. Observation

Observation is data collecting technique through observing from the field. The used the researcher when the teaching and learning continuing. In this research the researcher did observation on the English teacher with the students and has seen the situation of the situation of the teaching and learning process of English subject.

2. Test

Test is a series of tests or exercises that are used to measure skill, knowledge, intelligence, ability or talent possessed by individuals or groups. Tests was conducted to determine student learning outcomes is subjects in learning English speaking. Test use in this study is oral test. To get data of the students speaking ability the reasearch carries out pre-test before giving treatment and post-test after treatment.

- a. Pre-test

The pre-test was performed to determine the initial state between the experimental group and the control group. The researcher will give the test before implementing two stay to stray to combined with think talk write method to know students' writing skill and to get the data of their mastery writing of some groups.

- b. Post-test

Post-test will be given at the end, after implementing project based learning in experimental group and traditional method in control

group to check the different significant in student's writing skill of some groups.

E. The Technique of Data Analyzing

The technique used in this data analysis is the quantitative method and will be described in statistical form. To analysis data the writer uses *t*-Test. The *t*-Test is the most frequently used measure in second language research when comparing mean scores for two groups. It supposed to know whether experimental versus control class when taking the same test has the same score or not. The writer uses the following formula³ :

1. To search Mean Variable X with formula :

$$M_x = \frac{\sum X}{N}$$

2. To search Mean Variable Y with formula :

$$M_y = \frac{\sum Y}{N}$$

3. Determine the total square of error in experimental class, with

$$\text{formula: } \sum x^2 = \sum x^2 - \frac{(\sum x)^2}{N}$$

4. Determine the total square of error in control class, with formula:

$$\sum Y^2 = \sum Y^2 - \frac{(\sum Y)^2}{N}$$

5. To calculate t_{-test} with formula :

³ Anas Sudjiono, *Pengantar Statistik Pendidikan*, (Jakarta: PT Raja Grafindo Persada, 2003).
p. 317

$$6. \quad t = \frac{M_x - M_y}{\sqrt{\left(\frac{\sum x^2 + \sum y^2}{N_x + N_y - 2}\right) \left(\frac{N_x + N_y}{N_x \cdot N_y}\right)}}$$

M_x = Mean score of the experiment class

M_y = Mean score of the control class

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

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

N_x = Number of students of experiment class

N_y = Number of students of control class

2 = Constant number

7. Determine the t_{table} with formula:

$$df = N_x + N_y - 2$$