

CHAPTER III

RESEARCH METHODOLOGY

3.1. Setting of the Research

The research conducted at MTs. Mathalibul Huda Mlonggo which was located on Jl. Raya Jepara Bangsri Km. 09 Mlonggo, Jepara 59452. The researcher took the English Eighth grade students of MTs. Mathalibul Huda Mlonggo as the sample. In the student A and B, the students was taught two times a week.

3.2. Population and Sample of the Research

According to Mubarak (2015: 31), population is a unit of object or subject that had certain qualities and characteristics which were studied by the researcher then be deduced. Population here means the person or object that occurs in this world. In this research, the population were be two classes of the second grade students of MTs. Mathalibul Huda Mlonggo.

Furthermore, the technique of sampling that was used by writer is simple random sampling. Simple random sampling was used because it is impossible to change the classroom setting of the school. In this study, 56 students in two classes become the sample of the research. The writer took VIII A as the experimental class that had 28 students and VIII B as the controlled class that had 28 students. The experiment class will be taught writing through collaborative

technique, while the other class will be taught through conventional technique. The teaching and learning will be done for two meetings.

3.3. Variable of the Research

In this research, there were two variables. They were independent variable and dependent variable. Independent variable in this research was collaborative writing and dependent variable was writing skill.

3.4. Research Design of the Study

This study was conducted by using quantitatively through true experimental research in order to test the hypothesis, exactly to find the effectiveness of collaborative writing used. According to Mubarok (2015:88), experimental research was a research method used to find a specific treatment effect against the other in uncontrolled conditions. In the experimental research variables that exist including independent variables and dependent variables, had been determined explicitly by researchers since the beginning of the study.

In this study, two classes of the eighth grade students in MTs. Mathalibul Huda Mlonggo had been divided as the experimental and control group. Both class was be tested by post-test. VIII A and VIII B class was be chosen as the sample of the study. Post-test would be given after treatment. The process of the study could be presented as in the table below.

Table 3.1**The Process of Experimental Research**

Group	Treatment	Post test
VIII A	X	O2
VIII B	-	O4

(Mubarok, 2015:100)

VIII A :The experimental group

VIII B :The control group

X :The independent variable or the treatment (using collaborative writing)

O2,O4 : The posttest administered after the treatment

The steps of the experimental used as the following. First, two classes had been taken as sample of this study, one being the control grup and another being the experimental group. The treatment was conducted to experimental group where the students was taught by using collaborative writing tecnique while the control group was taught as usual without using collaborative writing method. The last would be administering a posttest to both group in the end of meeting. In this stage the researcher gave collaborative writing as treatment to experimental and control group. The explanation could be seen below:

1. Experimental Group**Table 3.2**

Experimental Group	
Treatment 1	<ul style="list-style-type: none"> a. The researcher gave explanation about descriptive text b. The researcher asked students to find and identify the generic structure of the text given
Treatment 2	<ul style="list-style-type: none"> a. The researcher reviewed the previous material b. The researcher gave a text and ask students to write using collaborative technique method.

2. Control Group

Control Group	
Treatment 1	<ul style="list-style-type: none"> a. The researcher gave explanation about descriptive text b. The researcher asked students to do the exercise in pairs.
Treatment 2	<ul style="list-style-type: none"> a. The researcher reviewed the previous material b. The researcher gave a text and ask students to do the exercise individually

3.5. Validity of the Test

According to Ary et al (2010 : 256) Validity is a more important and comprehensive characteristic than reliability. Because it is more difficult to measure systematically. Validity is meant to check the test. It is related to the skill which will be measured. Haris (1969: 13) stated that any test that a researcher will use must be appropriate in terms of our objectives and dependable in the evidence it provides. So, all good tests have validity. The concept of validity is designed to measure mastery of a specific skill or the concept of a particular course of study. In this study, the skill which will be tested by the researcher is writing skill. To get empirical validity the researcher should check on the actual effectiveness of a test is to determine how test scores are related to some independent or outside criterion.

3.6. Method of Data Collection

The writer used a test to collect the data. The data collected from the test. The test held at the end of the teaching learning process. This test was used to measure students' achievement. After they got to both experimental and control groups. The test was held July 28th for the control class. And September 5th 2018 for the experimental class. Moreover, each test was arranged one question. The test was given to the experimental and controlled classes' students.

3.7. Method of Data Analysis

The analyzing the data, the writer used *t-test* analysis technique. The technique was used to significant difference between two variable which were tested. It was necessary to calculate the data into the statistic calculate the data. T-test was used to find weather there is significant difference between the score of students' speaking skill by using collaborative writing technique as experimental group and conventional teaching technique as control group. The experimental class X variable class X variable and control class is Y variable.

$$\frac{M_1 - M_2}{SE_{M_1 - M_2}} = t_0$$

in which :

M_1 : Mean of variable X (experimental group)

M_2 : Mean of Variable Y (Control class)

SE : Standard error

(Sudijono, 2011:314)

There are several stages to get the calculation of t-test, it can be seen as follows:

1. Determining Mean of variable X, with formula:

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

2. Determining Mean of variable Y, with formula :

$$M_1 = \frac{\sum X}{N_2}$$

3. Determining Standard of Deviation Score of Variable X, with formula:

$$SD_1 = \sqrt{\frac{\sum X^2}{N_2}}$$

4. Determining Standard of Deviation score of Variable Y, with formula:

$$SD_2 = \sqrt{\frac{\sum Y^2}{N_2}}$$

5. Determining Standard Error Mean of Variable X, with formula:

$$SE M_1 = \frac{SD_1}{\sqrt{N_1 - 1}}$$

6. Determining Standard Error Mean of Variable Y, with formula:

$$SE M_2 = \frac{SD_2}{\sqrt{N_1 - 1}}$$

7. Determining Standard Error Mean of different Mean of Variable X and Mean of Variable Y, with formula:

$$SE M_1 - M_2 = \sqrt{SE_{m_1}^2 + SE_{m_2}^2}$$

8. Determining t_o , with formula:

$$\frac{M_1 - M_2}{SE_{M_1 - M_2}} = t_o$$

9. Determining Degrees of Freedom (df), with formula:

$$Df = (N_1 + N_2) - 2$$

3.8. The Statistical Hypotheses

There are statistical research hypotheses used before deciding the result of hypothesis as follow:

Ho	: { $\mu = \mu_2$ }
Ha	: { $\mu \neq \mu_2$ }

Notes :

Ho : Null hypothesis

Ha : Alternative hypothesis

μ : Students writing descriptive text , who taught by using collaborative writing method

μ_2 : Students writing descriptive text , who taught by using without collaborative writing method

The writer's assumption of those hypotheses are as follow:

- a. If $t_o > t_{table}$, the Null Hypothesis (H_o) is rejected and alternative hypothesis (H_a) is accepted. It means that there is a significant difference of students' writing descriptive text between students who are taught by using collaborative writing method and students who are taught without collaborative writing method.
- b. If $t_o < t_{table}$, the Null Hypothesis (H_o) is rejected and alternative hypothesis (H_a) is accepted. It means that there is no significant difference of students' writing descriptive text between students who are taught by using collaborative writing method and students who are taught without collaborative writing method.

