

CHAPTER III

RESEARCH METHODOLOGY

This chapter discusses about the description about methodology of the study. It is the ways to collect, locate, or create material to be analyzed. This chapter presents the research design, population and sample, data collection, and data analysis that is used in the research.

3.1 Research Design

Regarding to the research purpose of this study which wants to know whether there is any significant correlation or not between the two variables, the researcher uses quantitative research design by using correlational procedure, which is a study that examines the relation both of two or more variables that may affects each other or sets of data by comparing the proven testing scores. Here, the researcher does not give any treatment to the subject, but only collects the data based on subject's knowledge.

As the previous explanation, there are two variables in this study. Those two variables may correlate each other. The first independent variable is subject-verb agreement mastery which is symbolized by (*X*) and for the other or second independent variable in this study is students' descriptive writing ability which is symbolized by (*Y*).

3.2 Population and Sample

In this study, the researcher decides the population is the eighth grade students of SMP Muhammadiyah 1 Gresik. There are five classes which separated from A, B, C, D, and E, with the total is 142 students. So the population of this study is 142 students.

While determining sample of this research, the researcher uses cluster sampling technique, it is the way to collect sample by random of the group or class. The sample is chosen by the researcher randomly without any expectation of gender or age, because it does not belong to the research focus. The researcher takes E class which consists of 28 students as the subject of the study.

3.3 Data Collection

Data collection means collecting specific information about students' ability. It is aimed to find the data in the field of study which is examined. In this study the researcher uses two tests as instrument to collect the data. Furthermore, the researcher will explain the procedure of collecting data. The instrument and procedure of data collection used in this study are set as follows;

3.3.1 Instrument

In collecting the data, the researcher uses some instruments for collecting the data. There are two tests that will be used; those

are grammar test and writing descriptive text test. The aim is to know students' ability in subject-verb agreement and writing descriptive text. The test can be elaborated as follows:

- **Grammar Test**

The grammar test is made in order to know students' understanding in subject-verb agreement. It consists of 20 items which made of various grammatical rules of subject-verb agreement in the form of simple present tense. Since it belongs to objective test or multiple choices, so there are four options in each item, which are A, B, C, and D. The researcher gets the data by giving 5 points for each item. So the total point will be 100 point.

- **Writing Test**

Writing test is made to know students' ability in writing descriptive text, which only focuses in a theme "my idol". The aim is to equalize level of students' writing. In getting the data score, the researcher uses criteria rubric since this test belongs to subjective test. In assessing, there are five components of students' writing competency, such us content (30 point), organization (20 point), vocabulary (20 point), grammar (20 point), and mechanic (10 point). See the detail at *Table 2.6*.

3.3.2 Validity and Reliability

Before conducting the tests, in order to check the validity and reliability, the tests should be tried out into two steps. They are checking content validity and construct validity. To determine the content validity, the researcher is helped by the English teacher to check the instrument based on syllabus by seeing the indicator which is for making the content of specification. Then, to determine the construct validity, the researcher asks the English teacher to check the instrument validity and also rubric criteria. For the score of multiple choices, there are 30 items and every correct answer get 3.33 point, totally 99.99 rounded to 100 point. Meanwhile to define the construct validity, the researcher will use Cronbach's Alpha statistics in SPSS version 16.0 to analyze whether the items is valid and reliable or not.

3.3.3 Procedure

In order to reach the research objective of this research that is to know the correlation between subject-verb agreement mastery and students' descriptive writing ability of the eighth grade students at SMP Muhammadiyah 1 Gresik, the researcher tries to list the procedures for collecting data to support the data analysis, they are;

- The researcher observes eighth grade students at SMP Muhammadiyah 1 Gresik.
- The researcher prepares the instruments of the research, which are the grammar test and writing test.
- The researcher conducts Try Out for VIII-C class to measure the validity of the test. This class is chosen by the suggestion from the teacher because of same average of score with the subject's score in this study.
- The researcher gives Grammar Test and Writing Test to the subject of the research.
- The researcher collects the score data of the test.
- The researcher inputs the scores and analyzes the result of the scores by using statistical data of SPSS 16.0 program.
- After doing all the procedures above, the researcher tests the hypothesis by seeing column of sig. 2 tailed.

3.4 Data Analysis

After collecting the data from sources through some procedures mentioned above, the researcher analyze the data by doing some steps to find the answer of the research question. So, the researcher inputs the data from the grammar and writing test of VIII-E students of eighth grade at SMP Muhammadiyah 1 Gresik into SPSS 16.0 program for doing statistical analysis.

3.4.1 Normality Test

Normality test is one of important requirements in the procedure of a research. The use is to check whether the data from two variables are distributed normal by Test of Normality or not by using Shapiro-Wilk test. The result is very important to determine the next step of the data analysis that will be used to examine the correlation of the variables.

3.4.2 Correlation Coefficient

Correlation Coefficient is number which shows the strength of correlation between two variables. The result of the Correlation Coefficient will determine the strength of the correlation between subject-verb agreement mastery and students' writing descriptive text ability of eighth grade of SMP Muhammadiyah 1 Gresik. Here, the researcher will use Pearson Product Moment to analyze the result of research finding.

In this study, both of data sources are continuous (ratio) comes from the test score. So, to know the correlation, the researcher uses Pearson's r . Then the researcher does the following terms to support data analysis.

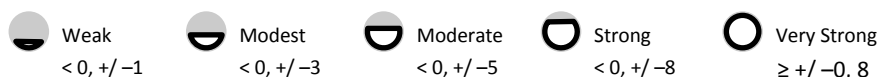
3.4.3 Hypothesis Testing

After examining the coefficient of correlation, the next step is analyzing whether there is significant correlation of the variables or not by using hypothesis testing. Hypothesis testing is needed to determine statistical correlation of the current study. So, null hypothesis need to be drawn and formulated as follows;

H_0 : There is no significant relationship between subject-verb agreement mastery and students' writing descriptive text ability.

H_1 : There is significant relationship between subject-verb agreement mastery and students' writing descriptive text ability.

After formulating the hypothesis, next is comparing the r value of Pearson's Product Moment calculation from the output of the SPSS to the level of significance for testing the hypothesis. After the scores are computed in SPSS, then see the Pearson's r output and take the output that if $\text{sig. (2-tailed)} > \alpha (0.05)$, the researcher should accept the H_0 , but if $\text{sig. (2-tailed)} < \alpha (0.05)$ so the researcher can reject H_0 , it means H_1 is accepted. The rules to determine the strength of correlation defines as follows;



Source: Mujis (2004)

