CHAPTER III

RESEARCH METHODOLOGY

This chapter presents the procedures which are used in conducting the research. It covers: research design, population and sample, research instrument, data collection, and data analysis.

3.1 Research Design

The design of this study is quantitative under the correlational design. Correlation research provides the indexes which indicate both the direction and the strength of a connection between two variables (Ary et al, 2010). The researcher will say that the variables are correlated when the correlation research shows a connection between the variables.

In this research, the variables of this research are vocabulary mastery and speaking skill. It means that the aim of this research is to identify the correlation between vocabulary mastery and speaking skills on third semester students of English Department at University of Muhammadiyah Malang.

3.2 Population and Sample

According to Ary, et al (2010), population is the group of interest to the researcher which wishes to generalize. The population of this study is third semester students of English Department at University of Muhammadiyah Malang. The total number of students was about 225 students. In taking the students as the sample, the researcher takes 5 students randomly in each class of

English Department at University of Muhammadiyah Malang. Moreover, the sample of this study is consisted of 25 students from the five classes.

3.3 Research Instrument

In collecting the data, some tools are needed in a research. The tools which help the researcher are called instrument. According to Arikunto (2010:192), instrument is an aid which used to collect the data in conducting the research. To collect the data, the researcher uses two types of collecting data. The first type of collecting data is test. It is intended to measure the students' vocabulary mastery. The second type is test-interview. The test-interview is intended to measure the students' speaking skill.

To score vocabulary test, the researcher used a formula to get a raw score. The formula as follows:

$$S = R \ x \ wt.$$

Where:

S   : raw score
R   : right answer
wt   : weight

Meanwhile, in obtaining the score of speaking test, the researcher used several components to measure students' speaking skills. The components are:

1. Pronunciation

   It is intended to measure or check the students' pronunciation when they

are explaining their ideas whether it is correct or wrong according to Standard English.

2. Vocabulary

To measure this component, the researcher checks the students' amount of words which are expressed or spoken in test-interview.

3. Fluency

The measurement of this component is focused on students' fluency while they are expressing their argumentation.

4. Grammar

The researcher checked students' sentence structure whether the sentences expressed correctly or not based on the grammatical rule.

Moreover, the researcher records students' speaking skill and check it several times till he is sure on his scoring. It means the researcher wants to avoid the subjectivity in testing or measuring students' speaking skill.

3.4 Data Collection

To get the data, the researcher brought out several procedures to collect the data which is needed as follows:

1. Determining sample of the research.

2. Consulting the instrument with advisors.

3. Giving vocabulary test to the sample in order to find out the vocabulary mastery.

4. Having an oral test with the sample in order to find out the ability in speaking.

5. Then, listing individual scores of two kinds of collecting data.

3.5 Data Analysis

In analyzing the data, the researcher used Pearson's Product Moment Correlation and mean score in order to know if there is a significant correlation between variable X and Y. In this study, vocabulary mastery was variable X and speaking skills is variable Y.

According to Sudjono (1996), the formula of mean score as follows:

$$Me = \frac{\sum x}{N}$$

Where:

Me : Mean score

$\sum x$: The score in a distribution

N : Total number of sample

The formula of Pearson's Product Moment Correlation (Sudjono, 1996) as follows:

$$r = \frac{N(\sum XY) - (\sum X)(\sum Y)}{\sqrt{\{N(\sum X^2) - (\sum X)^2\}\{N(\sum Y^2) - (\sum Y)^2\}}}$$

Where:

r : Correlation coefficient between variable X and Y

X : Score of vocabulary test

Y : Score of speaking skills

X^2 : Quadrate score of variable "X"

Y^2 : Quadrate score of variable "Y"

N   : Number of sample

To classify the mean score, the researcher used the Academic Standard of Scoring System as presented below:

No	Score	Qualification	Classification
1	4	A	Excellent
2	3.5	B+	Very Good
3	3	B	Good
4	2.5	C+	Enough
5	2	C	Poor
6	1	D	Very Poor
7	0	E	Fail