#### **CHAPTER III**

### **RESEARCH METHOD**

The description of research method will be presented in this chapter. Research methodology is an important part in conducting a study. It is needed to be described because it contains the way of general logic and theoretical perspective for a research project. This chapter presents the research design, subject of the study, data collection, data analysis used in the research.

## **3.1.** Research Design

Regarding to the research purpose of this study which has stated before; to find the correlation between self-esteem and speaking fluency, the data of this study were analyzed by using quantitative approaches. According to Muijs (2004:1) "Quantitative is about collecting numerical data to explain phenomena". In quantitative measurement, research or analysis contain hard data, such as numbers, values, statistic, fact, figures. The quantitative approach was used to analyze the scores of the data. This study was conducted in order to know the correlation between self-esteem and speaking fluency. To be able to gather the necessary data, the researcher utilized the quantitative research design by using correlational study. Correlational study concerns determining relationship among some variables (Ary, Jacobs, Razavieh, 1990). It needs correlation analysis to find the relationship of the variables. Correlation analysis is a statistic technique which aims to find relationship with correlation degree between two variables (Zawawi, 2012: 46).

So, from the explanation above we can say that it is correlational study because it aims to find the relationship between the two variables. There are two variables in this study; they are self-esteem and speaking fluency. As mentioned above, the objective of this study is to know the correlation between self-esteem and speaking fluency.

So, the researcher wants to examine the correlation of the variables, whether or not if students of 3<sup>rd</sup> semester at English Language Education Department at University of Muhammadiyah Gresik have good self-esteem and they have good speaking fluency.

## **3.2 Population and Sample**

#### **3.2.1** Population

Population is the group of people which is considered of the researchers and will be used by researchers to generalize the results of research (Fraenkel, 1990: 84). Based on the definition before, the population is the  $3^{rd}$  semester students at English Language Education Department at University of Muhammadiyah Gresik. There are three classes for  $3^{rd}$  semester students at English Language Education Department at University of Muhammadiyah Gresik. There are three classes for  $3^{rd}$  semester students at English Language Education Department at University of Muhammadiyah Gresik. They are A, B and evening classes. The total of the students who joined in Intermediate speaking skill classes are 61 students. So, the population is 61 students.

### 3.2.2 Sample

Arikunto (1998:117) said sample is part of population. Sample can be a representative for population to be the source of data. As Ary, Jacobs, Razavieh, (1990) stated "The larger sample is much more likely to be representative of the population". It is clear that the larger sample is the better to reach generalization. This means that sampling the whole of the population will support the generalization. Sampling the whole of the population is known as census (Muijs, 2004: 38). It can be done if the population size is quite small (Muijs, 2004). Since the population of this study is small enough, the researcher uses census.

Ary, Jacobs, Razavieh (1990: 178) explained that the smaller level of standard error (1%, 5% or 10%) the larger sample should be taken close to the amount of population. Sevilla et. al (1960:182) demonstrated formula to determining sample:

$$n = \frac{N}{1 + Ne^2}$$

n = Sample

N = Population

e = Level of error tolerance

After applying this formula, the amount of the sample which should be taken at 5% level of error tolerance in this study is 53. It is almost close to the amount of the population itself. Nasution (2006: 101) explained that the higher amount of sample the higher strength of generalization can be obtained. This is supported by Widi (2010) that the larger sample the larger certainty and accuracy can be obtained. So, the total of the sample is 53 students of the 3<sup>rd</sup> semester of English Language Education Department at University of Muhammadiyah Gresik.

## **3.3 Data Collection**

## 3.3.1 Instrument

Instrument is one of tools in the research to collect the data. There are several instrument can be used in the research, such as test, questionnaire, observation, interview, documentation, attitude scale, and field note. In this research, there are two instruments that researcher uses to collect data. They are questionnaire and document.

#### **3.3.1.1** Questionnaire

Test Questionnaire is tend to accumulate the data of self esteem. So, the researcher uses Questionnaire and the questionnaire consist of 30 questions and using VERY AGREE, AGREE, DISAGREE, or VERY DISAGREE. It means that the students will know their characteristic based on the questionnaire answer. They will answer 30 questions. For accumulating to the score of questionnaire, If students answer is VERY AGREE they will get score 4, if the answer is AGREE they will get score 3, if the answer is DISAGREE they will get score 2, but when students answer is VERY DISAGREE they will get score 1.

#### **3.3.1.2 Document**

In this part the researcher will not use test to accumulate the score of Speaking Fluency. To take the score of Speaking fluency, the researcher take score of speaking fluency from Intermediate speaking skill subject of 3<sup>rd</sup> semester students at English Language Education Department at University of Muhammadiyah Gresik. This score is used to determine learners speaking fluency. There are some aspects in scoring system of intermediate speaking skill subject. One of the aspects is speaking fluency. The researcher uses this score of speaking fluency as the data to correlate it with self esteem. The score is gained from two assessments. That is the score of Final test. In term of construct validity, this instrument is also appropriate with the rubric of intermediate speaking skill course. This score will be used to examine its correlation with self-esteem.

## **3.3.2.** The procedure of Collecting Data

In order to reach the research objective of this research; to know the correlation between self esteem and speaking fluency of 3<sup>rd</sup> semester students at English Language Education Department at University of Muhammadiyah Gresik, the researcher attempts to do these procedures for collecting data to support the data analysis, they are:

• The researcher will come to the class and ask the students to answer the questionnaires in the form of quiz to determine of their self esteem.

- The researcher will analyze the students' questionnaires in the form of quiz.
- The researcher selects the intermediate speaking skill as subject to be examined because wants to know their speaking performance class at University of Muhammadiyah Gresik.
- The researcher will meet intermediate speaking skill lecturer to ask the score and the rubric intermediate speaking skill of the 3rd semester students at English Language Education Department at University of Muhammadiyah Gresik.
- The researcher will take the scores of intermediate speaking skill by taking only the scoring of final test to be analyzed.
- The researcher will insert the data into SPSS software then analyze the correlation between self esteem and speaking fluency of the 3<sup>rd</sup> semester students at English Language Education Department at University of Muhammadiyah Gresik.

# 3.4 Data Analysis

The researcher needs variable of the self esteem to analyze the data in this research. Variable of speaking fluency is got from rubric intermediate speaking skill and variable of self esteem from the questionnaire. The score of self esteem is come from the calculation score of each item questionnaire. After collecting the data from some sources through some procedures mentioned above, the researcher analyses the data by doing some steps to find the answer of the research question. In data analysis, there are two important actions which are usually done for a research process; describing the data and doing inferential statistic analysis (Sukardi, 2007: 86). So, the researcher does both descriptive analysis and inferential statistic analysis.

First, the researcher inputs the data from the questionnaire of self esteem and score of speaking fluency of A, B, and evening classes students at English Language Education Department at University of Muhammadiyah Gresik into SPSS program for doing statistical analysis. Then, the researcher does the following terms to support data analysis.

## **3.4.1 Descriptive Statistics**

Since the statistical analysis in this study is done both descriptive and inferential statistically, the descriptive analysis is the first analysis in this study. Descriptive analysis is important to help a researcher make sense of a large amount of data (i.e. variables) by reducing it to a more interpretable form so it can be understood easily. The description of the data can be seen from mean, standard deviation, variance, modus, etc. (Zawawi, 2012). The description of the data statistically can be explored by using Descriptive Statistics in SPSS.

#### **3.4.2 Normality Test**

Normality test is one of important requirements in the procedure of this research. It is to check whether or not the data is distributed normal by using Test of Normality. To test the normality, the researcher will insert the data into SPSS and explored its normality by using Shapiro-Wilk and Liliefors (Kolmogorov-Smirnov).

The result of this Test of Normality is very important to determine which inferential analysis statistic that will be used to examine the correlation of the variables. From the result of Normality Test, if the data is distributed normal, the researcher uses parametric statistic analysis to find correlation coefficient, in this case is Pearson Product Moment. Nevertheless, if the data is not from normal distribution, the researcher uses non-parametric statistic analysis to find correlation coefficient, in this case is Spearman Rank.

# 3.4.3 Correlation Coefficient

Correlation Coefficient is number which shows the strength of correlation between two variables (Zawawi, 2012). The result of the Correlation Coefficient will determine the strength of the correlation between self esteem and speaking fluency of 3<sup>rd</sup> semester students at English Language Education Department at University of Muhammadiyah Gresik.

Coefficient correlation can determine the strength of the relationship, the closer to +/-1 the stronger and the closer to 0 the weaker (Muijs, 2004: 145). The rules to determine the strength of correlation are:

<0. + / -1 weak <0.+ / -3 modest <0.+ / -5 moderate <0.+ / -8 strong ≥=+ / -0.8 very strong

In this study, the data is from score of Self-esteem and Speaking fluency which is included in ordinal data. One of assumption for non parametric test is the variables expressed in ordinal scales (Best, 1981: 338). Because of this condition, the researcher probably will use Spearman's rho to find the correlation coefficient. However, the researcher still checks the Normality Test result to determine whether the researcher uses parametric or non-parametric analysis to find the correlation coefficient between the two variables.

Spearman's rho does it to calculate a correlation coefficient on ranking than actual data. There are 2 variables. They are Selfesteem and Speaking fluency.

$$rs = 1 - \frac{6\sum d^2}{n(n^2 - 1)}$$

rs = Koefisien Korelasi Spearman $\sum d^2 = Total Kuadrat slisih antar ranking$ n = Jumlah Sampel Penelitian

#### **3.4.4 Hypothesis Testing**

After knowing the coefficient correlation between Grammatical Accuracy and Speaking Fluency, the researcher uses hypothesis testing to find statistical significance of the correlation coefficient.

That is why the Null hypothesis is important in this case. Since this is an educational study, the level of significance is on 5% level (0.05). As Best (1981: 271) explained that in educational circles, the 5% (0.05) alpha level (significance level) is often used as standard for rejection. So, the principle is Null hypothesis (H0) cannot be rejected if P value (Sig.) is bigger than 5% (0.05). Meanwhile, the Null hypothesis of this study is there is no significant correlation between Self esteem and Speaking Fluency.

According to Best (1981), the test of significance of correlation coefficient can be computed with formula: Where:

- tr= the statistical significance of the correlation coefficient

- r = the correlation coefficient

- N = number of paired ranks

In short, there are some procedures in this research. First, the researcher determines the course subject to choose; Intermediate speaking skills. Second, the researcher will gather the data from questionnaire and intermediate speaking skills Lecturer. Third, the researcher will sort the data into the main focus. Next, the data will be checked whether it belongs to normal distribution data or not. Then, the data will be correlated to know its correlation coefficient.

Finally, the researcher will test the hypothesis whether the null hypothesis is rejected or not.