

## **CHAPTER III**

### **RESEARCH METHOD**

In this chapter, the researcher would like to present about the methodology of the study. This chapter consists of research design, population and sample, data collection, and data analysis.

#### **3.1 Research Design**

This study focuses on the relationship between students' academic self concept and English achievement. In this study, both of academic self concept and English achievement variables will be analyzed numerically. Moreover, although academic self concept variable belongs to non quantitative form, the assessment of academic self concept will be collected in quantitative way. It will be measured numerically by using questionnaire. Therefore, the data result from both variables is number. Thus, this study belongs to quantitative research. As Muijs (2004) stated that quantitative research is about collecting numerical data to explain particular phenomenon.

Furthermore, since the purpose of this study which has been stated before is to find the correlation between students' academic self concept and English achievement, this study belongs to correlation study. In line with this, Butler (1985) explained that correlation is area of statistics which is concerned with the study of systematic relationships between two (or more) variables. In this study, there will be two variables; academic self concept and English achievement. The

independent variable is academic self concept (X) and the dependent variable is English achievement (Y). The researcher will investigate the relationship between these two variables, whether there is any significant between them or not.

## **3.2 Population and Sample**

### **3.2.1 Population**

According to Fraenkel and Wallen (2005), population is the group of interest to the researcher, the group to whom the researcher would like to generalize the result of the study. Based on the definition above, it may be understood that the population of this study is the students of junior high school at 8<sup>th</sup> grade in MTs. Masyhadiyah Giri who are divided into four classes, they are VIII A, VIII B, VIII C and VIII D. Each class has different number of the students; it is for about 30 until 35 students.

### **3.2.2 Sample**

Arikunto (1998) stated that sample is part of population. We have already known that in selecting sample, there are four techniques used in education research, they are random, stratified, cluster, and systematic sampling. In this research, the process of taking sample is cluster sampling. According to Ary (1990) cluster sampling is the chosen unit and not an individual but a group of individuals who are naturally together. The researcher will use cluster sampling since the researcher only gets permission from the school to take the sample based on the class which has already determined by the school. Here, the researcher

takes only students at VIII D of MTs Masyhadiyah Giri as the subject of this study which consists of 30 students, not for all VIII A, VIII B, VIII C, VIII D classes.

The researcher chooses VIII D class as the subject of this study because there is consideration from the English teacher that based on the students' record on the previous semester, it has been known that VIII D has less ability in achieving English achievement rather than other eight grade classes. It also makes the researcher interest and curious about the level of academic self concept that they have. By doing a research to this subject, it will help to answer the question whether there is correlation between the low score of English achievement at VIII D class with the level of academic self concept that they possess.

### **3.3 Data Collection**

Data collection is collecting particular information about students' academic or behavioral performance in the teaching and learning process. Collecting data is needed for the researcher in order to find and get the data in the field of the study which investigated. In process of collecting the data the researcher will need the instrument and also do some systematic procedures. The instrument and the procedure of collecting data used in this study are set as follows:

### **3.3.1 Instrument**

According to Arikunto (1998), instrument is a tool that used by the researcher in method of collecting data. By considering the research design which has been stated before, in collecting the data, the researcher needs to use certain instrument which is suitable for supporting the analysis of the data in order to reach the objective of the study. In this study, there are two instruments that researcher uses in collecting data; they are questionnaire and document.

#### **3.3.1.1 Questionnaire**

In this study, questionnaire tends to measure the students' academic self concept about English subject. Academic self concept questionnaire that will be used in this study is adopted from Coetzee (2011). The questionnaire used in this study concerns on the assessment of academic self concept's dimensions which comprise of students' feeling, thinking, and acting toward English subject. So in this questionnaire, there will be cover 3 points; feeling, thinking, and acting. Here, first; feeling represents of students' awareness or feeling about their competence in mastery English, second; thinking represents of students' ideas or thought whether English is useful and important for their future or not and third; acting represents students' effort, commitment or involvement in English lesson.

In this questionnaire, each of these points (feeling, thinking, and acting) covers 6 items. So, the total item of academic self concept questionnaire is 18 items. These items will be mixed and stated in either negatively or positively worded. There will be 9 items for both of negative and positive statements.

Answers for the positive items are given a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The maximum score of positive item is 45 if a student answers all of positive items by strongly agree. Meanwhile, for the negative items are given also a 5-point Likert scale ranging from 1 (strongly agree) to 4 (strongly disagree). The maximum score of negative item is 45 if a student answers all of negative item by strongly disagree. So, the total maximum score of this questionnaire is 90. Here, if the students' score of questionnaire below 45, it means they possess low academic self concept, meanwhile if the students' score of questionnaire above 45, they belongs to high academic self concept. For more detail of academic self concept questionnaire can be seen on appendix 5.

### **3.3.1.2 Document**

In this part, the researcher does not use test to accumulate the score of English achievement. For taking the score of English achievement, the researcher asks the accumulation score of VIII D class which consists of exercises score, middle test, and final test at the second semester to the English teacher. Furthermore, this total score will determine the VIII D students' English achievement and will be used to examine its correlation with academic self concept.

### **3.3.2 The Procedure of Collecting Data**

After having decided the instrument, another important thing in collecting the data is determine the systematic procedures. These are some procedures to collect data:

- a. The researcher prepares the questionnaire of academic self concept.
- b. The researcher comes to the VIII D class of MTs. Masyhadiyah Giri and asks the students to answer the questionnaire to determine their academic self concept about English subject.
- c. The researcher analyzes the result of questionnaire which has been answered by the students by using Likert scale to determine the score of academic self concept questionnaire.
- d. The researcher meets the English teacher to ask the English score of the students at VIII D class of MTs. Masyhadiyah Giri on second semester to determine the students' English achievement.
- e. The researcher inserts and computes the data by using SPSS software, then analyze the correlation between students' academic self concept and English achievement at 8<sup>th</sup> grade of MTs. Masyhadiyah Giri.

### **3.4 Data Analysis**

The researcher needs variable of both students' academic self concept and English achievement. Variable of academic self concept is got from score of academic self concept's questionnaire, while variable of English achievement is got from accumulation score of English subject in second semester.

There are three types of data that may gather in language research. They are nominal, ordinal, and continuous (interval or ratio). In this research, the form of data is ordinal and continuous data. Ordinal data is come from academic self concept questionnaire and continuous (ratio) is come from English achievement. In this research, the independent variable (X) is ordinal and the dependent variable (Y) is continuous (ratio). So, to know the correlation the researcher uses *Spearman's rho*. As Muijs (2004) stated that if we want to look at the correlation between an ordinal and a continuous variable, we need to use a rank order correlation coefficient like *Spearman's rho*.

		Independent		
		Nominal	Ordinal	Continuous
Dependent	Nominal	Cross tabulation + Chi square + Phi	Cross tabulation + Chi square + Phi	Two nominal groups: t-test
	Ordinal	Cross tabulation + Chi square + Phi	Cross tabulation + Chi square + Phi or Spearman's rho	Spearman's rho
	Continuous	T-test (2 groups) + Cohen's D	Spearman's rho	Pearson's r

Source: Muijs (2004)

*Spearman's rho* does is calculate a correlation coefficient on rankings rather than on the actual data. In this study, there are two variables; they are score of academic self concept's questionnaire and score of English achievement. The correlation coefficients vary between  $-1$  and  $+1$ .  $-1$  indicates a perfect negative relationship,  $+1$  indicates a perfect positive relationship and  $0$  indicates no relationship.

A correlation is then calculated on these values, using the following formula Muijs (2004):

$$\rho = 1 - \left[ \frac{6 \sum d^2}{n(n^2 - 1)} \right]$$

$\rho$  ( $r_s$ ) = spearman correlation coefficient

$n$  = sample size

$d$  = the difference in ranks.

Based on Muijs (2004), the interpretation  $r$  value is:

< 0.1 = Weak

< 0.3 = Modest

< 0.5 = Moderate

< 0.8 = Strong

$\geq 0.8$  = Very Strong

The hypothesis of this research is as follows;  $H_a$  means there is correlation between variable X and variable Y and  $H_0$  means there is no correlation between variable X and variable Y. According to Best (1981) 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 ( $H_0$ ) 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 academic self concept and English achievement. By looking to the result of correlation, finally the researcher will test the hypothesis whether the null hypothesis is rejected or not.