

CHAPTER III

RESEARCH METHOD

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

3.1 Research Design

This study focuses on the relationship between students' learning style and English achievement. In this study, both of learning style and English achievement variables will be analyzed numerically. 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 the particular phenomenon.

Furthermore, since the purpose of this study which has been stated above is to find the correlation between students' learning style and English achievement, this study belongs to correlation study. In line with this, Donald Ary (2010) explained that correlation research is a design which correlates between two variables or more. This study uses correlation research to design it because this study has two variables. They are one independent variable and one dependent variable. This study correlates between independent variable (students' learning style (X)) and dependent variable (English achievement (Y)). So, this design is applied in this research because the goal of this study is to investigate

the relationship between students' learning style and English achievement for the students of Muhammadiyah Junior High School 1 Gresik grade eight.

Donald Ary (2010), argued that correlation study has some characteristics, such as: used to evaluate the relationship among the variables, non manipulated variables, and the hypothesis is optional. Here are the steps for conducting the correlation study, as following:

1. The researcher identifies the problem by asking question about the correlation between students' learning style and English achievement.
2. The researcher identifies the population for the students in grade eight of Muhammadiyah Junior High School 1 Gresik and takes the sample for the students of VIII A class only as the subject of this study.
3. The researcher decides the instruments, which are questionnaire, test, and interview.
4. The researcher measures the questionnaire by totaling the points based on the score given in questionnaire to know the students' learning preferences and the test will be analyzed using rubric.
5. The last, researcher collects the data in testing learning style and English achievement for each subject in the sample. Then, the researcher analyses the data of correlation among the questionnaire, test, and interview.

Those steps will be used during conducting this study. The researcher will follow those steps to get the result of the study.

3.2 Population and Sample

3.2.1 Population

According to Frankel 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 this study. Based on the definition above, it can be said that population is a group of group individual in the same place and same grade in a big place. It may be understood that the population of this study is all of the students of Muhammadiyah Junior High School 1 Gresik grade eight which are divided into three classes. They are VIII A, VIII B, and VIII C class. Each class has different number of the students. It is for about 23 – 25 students. There are 25 students in VIII A class, 24 students in VIII B class, and 23 students in VIII C. So, the total of the students in grade eight of Muhammadiyah Junior High School 1 Gresik are 77 students.

3.2.2 Sample

According to Arikunto (1998) sample is part of population. There are four techniques which are used in selecting sample. They are random, stratified, cluster and systematic sampling. In this study, the researcher uses cluster sampling for getting the sample from population, because the subject is chosen in cluster. That is in a group of individuals, but, it is not an individual. According to Ary (1990) cluster sampling is the chosen unit in and not an individual, but it is a group of individuals who are naturally together. Cluster means a group of individuals which are close together. In this case, the researcher uses the cluster sampling

technique by taking a group of grade eight from three classes, such as; VIII A, VIII B, and VIII C class which are taking VIII A class as the sample or an individual group.

The researcher chooses VIII A class as the subject of this study because there is a consideration of students' score record from the previous semester which is shown that VIII A class is the less English achievement rather than another class in eighth grade. It also makes the researcher curious and interest to know the students' learning style which used during learning process. By doing this research to these subjects, help to answer the questions whether there is correlation between the low score of English achievement at VIII A class with the students' learning style which they use.

3.3 Data Collection

Data collection is collecting particular information about the students' academic or behavioral performance in teaching and learning process. Collecting data is needed for the researcher to find the data from the field the study which is investigated. In collecting data, the researcher needs some instruments and does some systematic procedures. The instruments and the procedure of collecting data which are used in this study will set as following:

3.3.1 Instrument

According to Arikunto (1998), instrument is a tool which is used by the researcher in method for collecting the data. Considering the research design which has been stated before, in collecting data, the researcher needs to use some instruments in collecting data which are suitable for supporting the data analysis in order to reach the goal of this study. There are three instruments which are used in this study in collecting the data. Those are questionnaire, interview, and test.

3.3.1.1 Questionnaire

In this study, the questionnaire tends to measure the students' learning style about English subject. Students' learning style questionnaire which is used in this study is adopted from Willing (1988) and it will be translated in Indonesia. The questionnaire which is used in this study concerns on the assessment of learning style's types which are compressed of concrete learners, convergers (analytical learners), communicative learners, and conformists (teacher-oriented learners) toward students' English achievement. He identified four types of learner through this questionnaire. Nunan (1991: 170) defined those four types of learners with reference about learners' prefer to learn. For concrete learners tend to like games, pictures, films, video, using cassette, talking in pairs, and practicing English outside the class. Then, convergers (analytical learners) tend to like studying grammar, studying English book, reading newspaper, studying alone, finding their own mistakes, and working on problems set by the teacher. On the other hands, communicative learners tend to like learning by watching, listening

to native speakers, talking to friends, watching television in English, using English outside the class, learning new word by listening, and conversation. In addition, conformists (teacher oriented learners) prefer to get the explanation everything from teacher, like to have their own text book, write everything in a notebook, study grammar, learn by reading, and learn new words by memorizing. The questionnaire consists of 30 questions about how the students prefer to learn English. Students will be asked to indicate their preferences into 4 point scales, as follows: “do not like” equals 1, “like it a little” equals 2, “like it” equals 3, and “like it very much” equals 4. The questionnaire is appended in appendix.

The questionnaire’s items are measured about students’ learning style. Concrete learners include item number 2, 3, 5, 15, 17, 25, and 23. Converggers (analytical learners) include item number 10, 11, 12, 13, 18, 24, 26, and 27. Communicative learners include item number 4, 14, 16, 20, 28, 29, and 30. Conformists (teacher oriented learners) include item number 1, 6, 7, 8, 9, 19, 21, and 22. To know student’s learning style, the researcher totals the points based on the scores given, the overall learning preferences for each students are demonstrated. The scores will be interpreted by giving general descriptions of students’ learning preferences. Learners who have given the score of the questionnaire around 3-4 more than the other learning style types in each item for each type, means that, they tend to its learning style. On the other hands, the learners can have mixed learning style types if they have answered the questionnaire around 3-4 in more than one type.

3.3.1.2 Test

According to Airasian and Russel, (2008: 9), test is a formal process which is used to measure the students' achievement. It is used to gather the information about the students' achievement and the improvement of the students' ability. Test is used to check the understanding of the students during they learn English. Since the researcher focuses on English achievement, the researcher gives a writing test which is in writing test to check whether the students' English achievement can reach or not. The material in writing test is the material which exists in the students' text book as well. This test includes composing story of their best experience in their life. The students are given a piece of paper for composing short story about their holiday. Before composing a short story, students should compose the outline of their story.

To check the validity of the test, the researcher uses content validity. Content validity is done by comparing the English curriculum or syllabus with the test. In this study, the researcher will make the questions that going to be asked to the students. Then, compare the test with the English curriculum or syllabus. The validity is done by the purpose of checking whether the question of test is acceptable for the students or not. The following table is the detail information of contain validity in oral test is shown in Table 3.1.

Table 3.1. The content validity of the test

Theme	My holiday
Standard competence	The students are able to express the story in simple short monologue orally, accurately, and fluently to interact with the environment in the form of recount and narrative.
Indicators	Recognize the short monologue about the story in long holiday Identify the short recount monologue text Compose a sentence in the form of past time Compose the short story from about students' holiday
Question	Write your best experience that ever you have in your life

The standard competence of this test is the students are able to master in identifying, arranging, composing short text advertisement, notice, recount, and narrative text accurately. So, the writing test contains of the short monologue topic. For the writing test, it contains of short recount material. The test is appended in appendix.

3.3.1.3 Interview

According to Best (1981: 164), interview is a sense or an oral questionnaire which is given to the interviewee to get the information verbally in

face to face relationship. The purpose of interview is to collect the data from the participant's experience. Frankel and Norman E. Wallen (2005: 120)

Based on Ary (2002: 434) there are three types of interview, first is structure interview, second is unstructured interview and the third is semi structured interview. The structure interview is an interview which the questions can be developed during the process interview. The unstructured interview is the questions are raised from the situation. The last semi structure interview is the interview which has more freedom to pursue the assumption and can improvise the questions.

In this study, the writer chooses structure interview to collect the data from the students in eighth grade in English subject especially in writing activities. The reason of choosing this type is because the writer has already made the questions, so the students just answer the questions from the interviewee.

The interview is done by interviewing the students. This process is done to check the result of the questionnaire as well. To check the validity of the interview, the researcher conducts an interview after giving questionnaire and test. In this case, the researcher interviews some students. The interview sections with the students, the researcher uses snowball interview sampling strategy. Patton (2002: 243) explained that snowball sampling recognizes the interest problems from sampling subjects who know the information of the problem, good examples of the study, and good interviewee. In this case, the researcher interviews four students of VIII A class. It consists of two students female and two students male.

Those four students are chosen based on the observation, they are good interviewee in identifying the problems.

For interview to the students, the interview focuses on students' learning style during learning English. There are 9 questions which are asked to the interviewee and the questions are developed during interview if it is necessary. From conducting the interview, the researcher gets more information about students' learning style in achieving English achievement. The researcher interviews some students to get the information from the students about the learning style which they prefer to use in learning English. The interview is conducted by asking and answering process through oral communication and it is recorded and transcribed in appendix.

3.3.2 The Procedure of Collecting Data

After having decided the instruments, another important in collecting the data is determine the systematic procedures. These are some procedures to collect the data. First, the researcher prepares the questionnaire to know students' learning style, then the researcher gives the questionnaire to the students VIII A grade of Muhammadiyah Junior High School 1 Gresik. The teacher explains about how the way to fill the questionnaire. Then, asks the students to answer the questionnaire to determine students' learning style.

Second, after knowing students' learning style, the researcher uses a test to know the students' English achievement through writing test. This test includes composing short story about their best experience after making the outline of their story. The researcher asks the teacher of the class to help the researcher tests the students. The teacher gives the paper to the students to make the story outline, then, asks them to compose their story.

After conducting the test, the researcher interviews some students to get deep information about their learning style whether there will give impact to their English achievement or not. After the questionnaire, the test, and interview have been given to the students, the teacher gives the result to the researcher to be analyzed.

3.4 Data Analysis

Before drawing the conclusion, the researcher analyzes the data. Data analysis is needed to correlate between students' learning style and English achievement. Data analysis is an effort to find and set the result of the research because in this study the researcher investigates the correlation between students' learning style and English achievement. The researcher needs variable of both students' learning style and English achievement. Learning style variable is got from the score of learning style's questionnaire which is analyzed by the researcher by totaling the points which are based on the scores given and the scores are interpreted by giving general descriptions of students' learning preferences while English achievement variable is got from writing test which is

given by the researcher which is analyzed by the researcher using rubric of writing test. The researcher analyzed it using the rubric. It is appended in appendix.

There are three types of data which may gather in language research. They are nominal, ordinal, and continuous (interval or ratio). In this research, the form of the data is continuous/interval and continuous/ratio data. Continuous (interval) data comes from learning style questionnaire and continuous (ratio) comes from English achievement. In this research, the independent variable (X) is continuous (interval) and the dependent variable (Y) is continuous (ratio). Thus, to know the correlation of those two variables, the researcher uses *Pearson's r*. As Muijs (2004) explanation that if the researcher wants to know the correlation between continuous (interval) and continuous (ratio) variables. The researcher needs to use a rank of correlation coefficient like *Pearson's r*.

Summary of Bivariate Relationship by Daniel Muijs (2004)

		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)

Pearson's r calculates the correlation coefficient of the data from the continuous (interval) and continuous (ratio) variables. In this study, there are two variables. Those are the score of learning style's questionnaire and English achievement score. The correlation coefficient vary between -1 and +1 which -1 indicates a perfect negative relationship, +1 indicates a perfect positive relationship, and 0 indicates no relationship.

A correlation calculates the value using this formula from Muijs (2004), as following:

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{(n - 1)S_x S_y}$$

r = pearson's correlation coefficient

X_i and Y_i = individual observations

\bar{X} and \bar{Y} = the means of variable X and Y

N = the number of cases

S_x and S_y = the standard deviations of two variables respectively

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). Best (1981) described that 5% (0.05) alpha level (significance level) is used as the standard for rejection. So, the principle is Null hypothesis (H₀) cannot be rejected if P value (Sig.) is more than 0.05%, on the contrary, if P value (Sig.) is less than 0.05%, null hypothesis (H₀) is rejected. Meanwhile, there is no significant correlation between students' learning style and English achievement. By looking at the result of the correlation, the researcher tests the hypothesis whether the null hypothesis is rejected or accepted.