CHAPTER III

RESEARCH METHOD

The description of the methodology of the research 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

In this study, the writer wants to investigate whether there is significant correlation or not between the 2 quantitative variables by comparing the proven of testing scores, so correlation approach is applied for this study.

Correlation is area of statistic concerned with the study of systematic relationships between two (or more) variables (Butler, 1985: 137). There will be two variables in this study, functional grammar mastery and common error on present tense application. The independent variable is functional grammar mastery (X) and dependent variable of the research is common error on verb tense application (Y).

3.2   Sample of The Study

In this study, the writer will apply cluster sampling. Based on Ary (1990) cluster sampling is the way to collect the sample by random. It is chosen by the

writer because the writer has no expectation for gender or age through the study and it is not research focused.

SMA NEGERI 1 KEBOMAS GRESIK at XI (IS 3) will be chosen as the subject of the study because the case such While the writer was teaching reading skill, they seemed very well provided by score in asking question and their linked back to retell the text itself. It can be concluded that they are able to translate well toward the text written correctly in roles, but it was not same in writing skill provided by making report text, there were many mistakes in grammatical roles and dominantly about subject agreement. It was the biggest questionable thing that the writer should break down and the writer wants to investigate and finally prove the study in that class.

3.3 Data Collection

Data collection is collecting specific information about students' academic performance in the mastery of functional grammar. Collecting data is assistance to the researcher to find the data in the field of study which examined. In this study the writer uses some instruments to collect the data. Furthermore, researcher will explain the procedure of collecting data in this study. The instruments and procedure of data collection used in this research are set as follows:

3.3.1 TOEFL Test

TOEFL or Test of English as A Foreign Language is used to measure students' language ability in English especially for foreign language subject. In this study researcher use paper-based TOEFL test to get score of students'

grammar ability. Researcher will use 25 questions of structures and expressions from CLIEFS TOEFL. There are many kinds of TOEFL such as reading, listening, and structure, but the researcher focus on TOEFL STRUCTURE only, the sample of question can be seen in appendix I.

3.3.2   Free writing

Free writing had intended to test writing skill. In this research, the point is on verb tense use the form: as the idea of clause which should have minimally the construction of subject and verb is indicator for justification, so is the role toward tense itself, the sample of question can be seen in appendix I.

$$X = \underline{\varSigma Er}\ x100\% =$$
$$\varSigma\,W$$

X = *the percentage of errors*

Er = Number of errors

W = sentences

Σ = the total number

NAME		Kind of text	Report text
CLASS		Theme	"Hobby"
NO		Time	30 Minutes
FREEWRITING			

3.4 Procedure

There are some procedures for collecting data in this study. The first steps, researcher prepares the instruments of the research. The instruments are TOEFL and free writing. Before instruments are tested to the subject of the research, researcher will check the validity and reliability of the instruments by consulting with Mrs. Lilik.M. Pd as English teacher in that school and make pre-test to measure validity and reliability by using pearson product moment such the idea of Widiyanto (2010:34-37) stated bivarate correlation is one of formulas to check instrument' validity.

After the preparation finished, researcher will do second steps, testing the instrument to the subject of the study. In this point, TOEFL will be administered in one session within one meeting of the class. Another session of free writing

will be given to the same students who have done TOEFL test. The researcher will be present in each session and administered both test under standard condition.

The next steps, researcher will collect all data both TOEFL test where each question has 4 points presented in (true answer x 4 = score) and free writing is such table above then calculate it. The last, scores will be imported to SPSS for statistical analysis and conduct a comparison between two variables of functional grammar teaching proven TOEFL test and common errors in verb tense use. Then correlation between variables will be estimated.

3.5   Data Analysis

For analyzing data, researcher has to be considered first to the variables exist in this research. In this case, the variables are functional grammar mastery and common error on verb application of XI (IS 3) SMA NEGERI 1 KEBOMAS GRESIK students. The variable of functional grammar mastery will get from TOEFL test.

While common error on verb application will be measure from the free writing. Henceforth, for analyzing the data researcher will use SPSS 15.0 software. For the steps of data analysis researcher defines steps which described as follows.

3.5.1   Coefficient of Correlation

After getting the result of the normality test, researcher is going to analyze whether there is correlation between two variables or not by determining the coefficient of correlation. The variable of functional grammar mastery refers to

independent variable (X) and common error on verb tense application refers to dependent variable (Y). For the correlation analysis those variables, researcher use Pearson Product Moment Coefficient.

Pearson Product Moment Coefficient can be used to measure correlation between functional grammar mastery and common error on verb tense application. Pearson correlation coefficient is appropriate to variables of the ratio or interval type and it is also assumes that each set of scores is normally distribute. The coefficient of correlation expressed by the notation r which indicates the strength or weakness the relationship of those variables. The interpretation for calculating correlation coefficients are the value of +1 is obtained for perfect positive correlation, a value of -1 for perfect negative correlation, and a value of zero for no correlation at all (Butler, 1985: 141).

$$r = \frac{n(\Sigma XY) - (\Sigma X)(\Sigma Y)}{\sqrt{[n\Sigma X^2 - (\Sigma X)^2][n\Sigma Y^2 - (\Sigma Y)^2]}}$$

r = person r correlation different

n = number

Σxy = sum of the product paired source

Σx = sum of x scores

Σy = sum of y scores

ΣX^2 = sum of squared x scores

ΣY^2 = sum of squared y scores

The formula of Pearson Product Moment Coefficient.3.5.2

3.5.2. Hypothesis Testing

After consider the coefficient of correlation, the next researcher is going to analyze 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 in this step. The hypothesis of this study can be formulated as follows:

H_0 : there is no significant relationship between functional grammar mastery and common error on verb tense application.

H_1 : there is significant relationship between functional grammar mastery and common error on verb tense application.

After formulating the hypothesis, the next step 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. The significant level of this study or α (alpha) is at 5% level (0,05). After the scores are computed in SPSS, while see the Pearson's r.

r value	Interpretation
< 0,+/-1	Weak
< 0,+/-3	Modest
< 0,+/-5	Moderate
< 0,+/-8	Strong
≥ +/-0,8	Very strong

Table 3.6 The interpretation r value