

CHAPTER III

METHODS AND PROCEDURES

This chapter describes: (1) methods of research, (2) research variables, (3) operational definition, (4) population and sample, (5) data collection, (6) validity and reliability, and (7) data analysis.

3.1 Method of Research

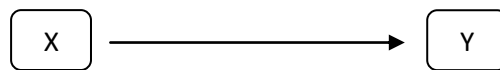
In this study, a correlation study was used to find out whether or not there is a relationship between language attitudes and English proficiency of High School Student at SMA Sumatera Selatan Palembang.

According to Creswell (2012), correlation is a statistical test to determine the tendency or pattern for two or more variables or two sets of data to vary consistently (p. 338). According to Fraenkel, Wallen and Hyun (2012), the correlation study mainly focuses on the possibility of relationship between only two or more variables investigated without any attempts to influence them (p. 331).

This study was aim to find out the correlation between foreign language learning attitude and English proficiency, whether or not there would be an influence between language learning attitude and English proficiency and draw interpretation based on the result of the study. Correlation research was used in term of explanatory and prediction research design to find out the correlation between variables, explain, and interpret the result that may appear.

The procedure was that, first; I was going to identify the students' attitude toward English by using questionnaire. Second, by using TOEFL Junior, the students' English proficiency was going to be obtained. Third, I was going to find the correlation and influence between variables through SPSS (Statistical Package of Social and Science) based on the result of the questionnaire and TOEFL Test. Last, explanation and interpretation of the result was going to be discussed.

The following design is as follows:



Where:

X : Students' attitude toward English

Y : Students' English proficiency

3.2 Research Variables

Fraenkel, et al. (2012) defined variable as a concept – a noun that stands for variation within a class of objects, such as chair, gender, eye colour, achievement, motivation, or running speed (p.77). According to Cresswell (2012), a variable is a characteristic or attribute of an individual or an organization that (a) researches can measure or observe and (b) varies among individuals or organizations studied (p.112). According to Cresswell (2005), there are two variables in a correlational study; the prediction and the criterion variable (p.328).

A predictor variable is to identify variable that positively predict an outcome or criterion presumed to have on one or more other variable. Meanwhile, criterion variable is the variable being affected to assume or to be affected by the prediction variable (Cresswell, 2005, p.328).

Furthermore, according to Fraenkel, et al. (2012), a common and useful way to think about variables is to classify them as independent and dependent. Independent variable is what I chooses to study in order to assess their possible effect(s) on one or more other variable (p. 80). Cresswell (2012) stated that a dependent variable is an attribute or characteristic that is dependent on or influenced by the independent variable. You may find them labeled in the literature as the outcome, effect, criterion, or consequence variable (p.115-116).

In this study, the predictor (independent variable) was the attitude towards English as X variable at SMA N Sumatera Selatan, while the criterion (dependent variable) of this study was their English proficiency as Y variable.

3.3 Operational Definitions

The title of this study is “The Correlation between Language Learning Attitudes and English Proficiency of High School Students at SMA N Sumatera Selatan Palembang”. The terms that need to be explained are correlation, language learning attitudes toward English and English proficiency.

First, correlation is the study to find out the relationship between two (or more) variables. I used two variables, language learning attitude and English proficiency.

Second, language learning attitude refers to the feeling students have about English. In this study, the language learning attitude included the students’ self-image, inhibition, risk-taking, ego-permeability, and tolerance of ambiguity in learning English. The students’ language learning attitudes were measured by

Language Learning Attitude Questionnaire developed by Summer Institute of Linguistic International (1995).

Third, English proficiency is the students' achievement of listening comprehension skill, structure, and written expression and reading comprehension skill. In this study, the student's English proficiency will be measured by applying a TOEFL Junior test.

3.4 Population and Sample

3.4.1 Population

According to Cresswell (2005), population is a group of individuals who have the same characteristics (p. 145). Richard and Schmidt (2010) stated that population in statistics is any set of items, individual, which share some common and observable characteristics and from which a sample can be taken (p. 443). In addition, Fraenkel, et al. (2012) defined population as the group of interest to the researcher, the group to whom the researcher would like to generalize the result of the study (p. 92). The population of this study was the students of SMA Sumatera Selatan Palembang which consist of twelve classes from grade X, XI, and XII. The distribution of population is presented in table below.

Table 3. Population of the Study

No.	Class	Number of Students
1	X 1	25
2	X 2	25
3	X 3	25
4	X 4	25

5	XI Science 1	25
6	XI Science 2	25
7	XI Science 3	25
8	XI Social	25
9	XII Science 1	25
10	XII Science 2	25
11	XII Science 3	25
12	XII Social	25
Total		300

3.4.2 Sample

Cresswell (2012) stated that a sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population. The sample can be selected from individuals who are representative of the entire population (p. 142). Fraenkel et al. (2012) defined a sample in a research study is a group who will participate in the study (p. 91).

The sample was taken by using convenience population sampling. Ninety students from grade XI were volunteered to take the questionnaire as they were available at the moment. Based on Fraenkel, et.al (2012), a sample should be as large as the researcher can obtain with reasonable expenditure of time and energy (p.102). The distribution of sample is presented in a table below.

Table 4. Sample of the Study

No.	Class	Number of Students
1	XI Science 1	16
2	XI Science 2	24
3	XI Science 3	25
4	XI Social	25
Total		90

3.5 Data Collection

In this study, I used a questionnaire and a test as the instruments to gather the data concerning the correlation between language learning attitudes and English proficiency of High School Students at SMA N Sumatera Selatan Palembang.

3.5.1 Language Learning Attitude Questionnaire

Johnson and Christensen (2012) defined questionnaire as a self-report data-collection instrument that each research participant fills out as part of a research study (p. 162).

To obtain the information about students' language learning attitudes, I used a ready-made questionnaire *Language Learning Attitudes Questionnaire* originally designed by Orwig (1995) which had been adopted and used by other researches (Rohliah, 2015; Alavinia&Salmasi, 2012; Naeini&Pandian, 2010).

The questionnaire which was used in this study contained 27 items, measuring five principal components of language learning attitudes: self-image, inhibition, risk-taking, ego permeability, and tolerance of ambiguity. Each scale had eight items (see table below).

Table 5. Principal Components of Language Learning Attitude

Principal Components	Item No (27 items)
Self-image	1,2,3,4,5,6,10,22
Inhibition	2,4,6,7,8,9,10,16
Risk-taking	5,11,12,13,21,24,25,27
Ego permeability	1,3,5,14,15,21,22,23
Tolerance of ambiguity	4,16,17,18,19,20,26,27

For this study, the questionnaire used the Likert-scale rating system. Therefore, the students would be rated by using the following Likert-scale: *strongly agree* (8), *agree* (6), *quite agree* (4), *disagree* (2), and *strongly disagree* (0). The students' responses were calculated and the scores were categorized as high (48-64), above average (36-47), average (16-35), and low (0-15).

3.5.2 TOEFL Junior

Students' English proficiency was measured with TOEFL Junior. The TOEFL Junior Standard test is a paper-based test consisting of 126 multiple-choice questions. It includes three sections—Listening Comprehension, Language Form and Meaning, and Reading Comprehension. Each section contains 42 four-choice questions with a total testing time of 1 hour 55 minutes.

Some of the questions in the test may not counted toward the section or total scores. Of the questions that count, each correct answer counts equally toward the score for that section.

Table 6. Summary of the Structure of the Test.

Section	Questions	Time
Listening Comprehension	42	40 minutes
Language Form and Meaning	42	25 minutes
Reading Comprehension	42	50 minutes
Total	126	1 hour 55 minutes

Before doing the test, the test administrator checked the audio and students' readiness to follow the test. The test administrator explained the

procedures of the test. Students will be told when to start and stop during each section. During each time period, students may read or work only on the section of the test students are going to be told to do so, and student may not go back to a section they have already worked on.

Students' score was based on the number of question students answer correctly. The number of correct responses on each section is going to be converted to a scaled score that ranges from 200 to 300 in increments of 5. The total scaled score is a sum of the three section scores, and, therefore, ranges from 600-900 points in increments of 5.

3.6 Validity and Reliability

3.6.1 Validity

Before the questionnaire was administered, I have checked the validity and reliability. Fraenkel et.al (2012) stated that validity refers to the appropriateness, meaningfulness, correctness, and usefulness of the inferences a researcher makes (p. 148). They also stated reliability refers to the consistency of scores or answers from one administration of an instrument to another and from one set of items to another. Validity refers to the accuracy of the inferences or interpretations made from the test scores, while reliability refers to the consistency or stability of the test scores.

3.6.1.1 Validity of The Questionnaire

Fraenkel, et.al (2012) stated that validity depends on the amount and type of evidence there is to support the interpretations researcher wish to make

concerning data (p.148). Based on Cresswell (2012) in addition to reliability, you should examine whether the scores from the instrument (nor the instrument itself) are valid (p. 159). In this study, I will use ready-made language learning attitudes questionnaire originally design by Orwig (1995) adopted by Rohliah (2015). The validity of the questionnaire was administered to 35 university students during their first semester. And result showed that the questionnaire was valid and successfully conducted to 640 first semester students of another university.

In addition, I will use construct validity to clarify the appropriateness of the questionnaire for the high school students. According to Fraenkel, et al (2012), construct validity refers to the nature of psychological construct or characteristic being measured by the instrument (p. 148). The instrument provided will be consulted to achieve some expert judgments from at least three validators to evaluate whether the components of the instrument are valid or not to be applied in research activity. The result of the questionnaire was valid to be distributed with several revisions on the instruction.

3.6.1.2 Validity of The TOEFL Junior Test

In this study, I will use TOEFL Junior Test conducted by SMA N Sumatera Selatan. SMA N Sumatera Selatan has an integrated curriculum between national curriculum and international standards Cambridge. That is to say, the students follow the national exam held by Kemendikbud and international examinations of Cambridge University. As the school also a central organizer of Cambridge International Examination (CIE), SMA N Sumatera Selatan has

conducted their own English proficiency test held by its language institute since 2009. In conclusion, the validity of the TOEFL test are valid.

3.6.2 Reliability

Cresswell (2012) stated that reliability means that scores from an instrument are stable and consistent (p.159). Fraenkel, et al.(2012) state that reliability a goal of good research is to have measures or observations that are reliable (p. 234). To know the questionnaire was reliable, whenever the reliability coefficient of test score should be at least 0.70, and preferably higher (Cohen, Manion & Marisson, 2007, p. 506). I will use the ready-made attitude questionnaire adopted by Rohliah (2015) with 0,719. Since the coefficient of Language Learning Attitude questionnaire was higher than 0.70, the questionnaire has considered reliable.

The reliability coefficients of the four TOEFL Junior Standard scores, in the group of all test takers, are estimated to be as follows:

Table 7. Reliability Score

Reliability Estimate of TOEFL Junior Standard Test Score	
Listening comprehension	.87
Language form & Meaning section	.87
Reading comprehension	.89
Total	.95

Source: TOEFL Junior Handbook, 2015, p. 29

The reliability coefficient of TOEFL Junior test was .95. It means that the instrument was reliable.

3.7 Data Analysis

After distributing the questionnaire and gaining students' TOEFL Junior test score, I will check and analyse the data. Normality test and linearity test will be conducted prior to data analysis through SPSS. As parametric statistics, in terms of correlation and regression, it is necessary to examine if the distribution of data was normal for each variable and linear between variables. Kolmogorov-Smirnov formula will be applied to see the normality. In measuring the data linearity, test for linearity is going to be applied. The data linearity is going to be found whenever the p-output is higher than 0.05, and F-value is lower than F-table.

After all of the data are found normal and linear, the analysis is done. The data will be checked and scored manually by using some scoring systems, and then put into some categories in each variable. Furthermore, the correlation and contribution among variables will be analysed.

The analysis of the forthcoming collected data will be conducted by using Pearson Product Moment Coefficient and Regression Analysis. The first technique is going to be applied to find out whether there is any significant correlation between language learning attitude as well as each type and their English proficiency. To interpret the correlation coefficient, the following criterion from Cohen, Manion and Morrison (2007, p. 536) will be used.

Table 8. Interpretation of the Correlational Coefficient

Interval Coefficient	Level of Correlation
0.20 – 0.35	Weak
0.35 – 0.65	Fair
0.65 – 0.85	Strong
Over 0.85	Very Strong

The second technique, Regression Analysis, will be applied in order to know the contribution of attitude toward English to English proficiency of the students of SMA N Sumatera Selatan Palembang. In the correlations study, the analysis will be estimated a statistical process of the correlations between variables or between one or more predictor variables and the criterion variable. Thus, the result of the analysis is going to indicate the percentage of the predictor variables that contributes to the criterion score. In addition, all the statically calculation above will be done by SPSS (Statistical Package for Social Science).