

## CHAPTER III

### DESIGN AND PROCEDURES

This chapter presents (1) research design, (2) variables of the study, (3) operational definitions, (4) population and sample, (5) technique for collecting the data, and (6) data analysis.

#### 3.1 Research Design

The research is a correlational research. This research is one way of describing in quantitative terms the degree to which the variables are related. In this research is a quantitative method of research investigators measure the degree of association or relation between two or more variables using the statistical procedure of correlational analysis (Johnson and Christensen 2012, p. 44). The research design is as follows:



The main purpose of this study is to discover whether any significant correlation between language aptitude and English proficiency of the undergraduate EFL students of UIN Raden Fatah Palembang or not. Also, to know whether language aptitude significantly influences English proficiency of the undergraduate EFL students of UIN Raden Fatah Palembang.

### **3.2 Research Variables**

A variable is a characteristic or attribute of an individual or an organization that researchers can measure or observe and varies among individuals or organizations studied. A common and useful way to think about variables is to classify them as the independent-dependent (Rumainah, 2016. p, 57). The independent variable is a stimulus variable or input, it is that factor selected, manipulated, or measured by the researcher to determine its relationship to observed phenomena. Meanwhile, the dependent variable is a response variable or output, it is that factor observed and measured to determine the independent variables. In this research, two research variables. The students' language aptitude is the independent variable symbolized by 'X', and the students' English proficiency is as the dependent variable symbolized by 'Y'.

### **3.3. Operational Definitions**

The operational definition is a definition of a concept in terms which can be observed and measured. To avoid misunderstanding, the researcher serves some operational definitions used in the context of this study.

Language aptitude is an ability or potential of students or individual how to learn language easily and quickly in a language course or language training program. In this research, the students language aptitude will be identified by using LLAMA test. The test included a set of tests consists of LLAMA\_B, D, E, and F.

Language proficiency can be defined as the skill of using a foreign language. Tests are implemented to check an individual's ability in performing the language with regard to receptive and productive skills. The test such as TOEFL or IELTS, it can be used to check the achievement level of an individual in reading, writing, listening, and speaking as well as proficiency in grammar and vocabulary of the foreign language. In this study, I used the recapitulation of students' test mark (TOEFL score) gotten through the test given by the TOEFL tester.

Correlation is the study the purpose is to discover the relationship between one independent variable with one or two dependent variables. In this research, two variables correlated students' language aptitude, and English proficiency of the undergraduate EFL Students of UIN Raden Fatah Palembang.

### **3.4 Population and Sample of the Study**

#### **3.4.1 Population**

A population is a group of individuals who have the same characteristic, it supported by Creswell (2014). In my research, the population were the active students of the Undergraduate EFL Students of UIN Raden Fatah Palembang, and they are going on research proposal. The population consist of 140 EFL students in the academic year of 2012/2013 and 2014/2015. The distribution of the population of the study can be seen on the table below:

Table 2 Population of the study

No	Class	Population
1	PBI 2012	120
2	PBI 2014	120
<b>Total Population</b>		<b>140</b>

(Sources: EFL Students of UIN Raden Fatah Palembang)

### 3.4.2 Sample

I took only 30 of EFL students for the samples by using purposive sampling technique. Because of the 30 students are completing a research proposal have taken the TOEFL test, and they were having a minimum TOEFL score of 450. Relating to the idea above, purposive sampling (judgmental sampling) is used in both qualitative and quantitative research (Johnson & Christensen, 2012 p. 364). Therefore, the total number of this research was 30 students' sample. The distribution of the sample as follows:

Tabel 3 Sample of the Study

No	Class	Number of Students
1	PBI 2012	15
2	PBI 2014	15
<b>Total Sample</b>		<b>30</b>

(Sources: EFL Students of UIN Raden Fatah Palembang)

### 3.5. Data Collection

In order to get some data needed to support this research, the instrument used such as language aptitude test and documentation.

### 3.5.1 Language Aptitude Test

I used a set of test called Modern Language Aptitude Test (MLAT) or LLAMA Language Aptitude Tests (LLAMA) test to know the students' language aptitude in learning English of EFL Students of UIN Raden Fatah Palembang. The test included a set of tests consists of LLAMA\_B, LLAMA\_D, LLAMA\_E, and LLAMA\_F. This test was adapted from the test that was expanded by Carol and Sapon(1959), it means that, the test was not fully copied but had been modified by considering it with the need, culture, and background knowledge of Indonesian students.

Table 4 Matrix of Students' Language Aptitude

<b>Variable</b>	<b>Indicators</b>	<b>Items</b>
<b>Students' Language Aptitude (X)</b>	1. LLAMA_B	Vocabulary
		Learning
	2. LLAMA_D	Sound Recognition
	3. LLAMA_E	Sound-Symbol
	4. LLAMA_F	Grammatical

(Sources: LLAMA Language Aptitude Tests)

Table 5 The Category of Students Language Aptitude

<b>LLAMA_B</b>	<b>Score</b>	<b>Category</b>
	0-20	Poor
	25-45	Average
	50-70	Good
	75-100	Very Well
<b>LLAMA_D</b>	<b>Score</b>	<b>Category</b>
	0-10	Poor
	15-35	Average
	40-60	Good

	75-100	Very Well
<b>LLAMA_E</b>	<b>Score</b>	<b>Category</b>
	0-15	Poor
	20-45	Average
	50-65	Good
	75-100	Very Well
<b>LLAMA_F</b>	<b>Score</b>	<b>Category</b>
	0-15	Poor
	20-45	Average
	50-65	Good
	75-100	Very Well

(Sources: LLAMA Language Aptitude Tests)

### 3.5.2 Documentation

The documentation was used to get information about students proficiency in learning English. This is the recapitulation of students' test mark gotten through the test given by the teacher. It was used to know about the students English proficiency of the Undergraduate EFL Students of UIN Raden Fatah Palembang. I will interpret the students' score of TOEFL test into some measurable categories can be followed:

Table 6 The Category of Students Proficiency

<b>Toefl Score</b>	<b>Category</b>
525-677	Advance
480-520	High Intermediate
420-480	Low Intermediate
310-420	Elementary

(Sources: Language Insitution of UIN Raden Fatah Palembang )

### **3.6 Data Analysis**

After distributing the questionnaire and test, the writer checked and analyzed the collected data.

#### **3.6.1 Data Descriptions**

In distributions of frequency data, the score from language aptitude test and English proficiency were analyzed. SPSS Statistics Program was used to get the result of frequency data.

#### **3.6.2 Descriptive Statistics**

In descriptive Statistics, the number of samples, the score of minimum, the score of maximum, mean, and standard deviation will be obtained. Descriptive statistics were obtained from the scores of the language aptitude test and English proficiency. Then, SPSS Statistics Program was used to get the result of descriptive analysis.

#### **3.6.3 Pre-requisite Analysis**

In terms of correlation and regression, it was necessary to know whether the data is normal for each variable and linear between two variables.

#### **3.6.4 Normality Test**

In this study, the normality test was used to ascertain whether the data of Language Aptitude test and English proficiency were normal or not. The writer used I-Sample Kolmogorov-Smirnov in SPSS. If the p-value is higher than .05 then it was normal and vice versa.

### **3.6.5 Linearity Test**

In this study, the linearity test was conducted to know whether the data of language aptitude test and English proficiency linear or not. If the score was higher than 0.05, the two variables were linear. Linearity test in SPSS will be used to see if the data linear or not.

### **3.6.6 The Analysis of Test**

The data from the test was analyzed to determine the language aptitude and English proficiency to discover whether a significantly positive correlation between students' language aptitude and their proficiency in learning English, the data were analyzed statistically. In analyzing the data, the researcher used the Pearson Product Moment Correlation Coefficient (r) by using SPSS 22 Program.

### **3.6.7. Correlation Analysis**

After getting the result of language aptitude test and English proficiency of students, the writer used Pearson – Product Moment Correlation Coefficient to discover whether a correlation between the variables. The interpretation of coefficient correlation is found whenever Pearson r is higher than 0.34(>0.34).

### **3.6.8 Regression Analysis**

Regression Analysis was used to ascertain whether language aptitude influence students' English proficiency. Simple regression analysis will be used to measure two variables. The score of language aptitude as the independent variable and students' English proficiency as dependent variable will be calculated by



SPSS. The significance of influence will be determined by comparing the R-Square.