#### **CHAPTER II**

# LITERATURE REVIEW

This chapter presents (1) the concept of correlation, (2) the concept of English proficiency, (3) the factors affecting of English proficiency, (4) the concept of language aptitude, (5) the language aptitude testing, (6) the components of language aptitude, (7) the relationship between language aptitude and English proficiency, (8) the previous related studies, (9) the hypotheses.

# 2.1 The Concept of Correlation

Correlational research as a research which is carried out to examine the nature of the relationship between two naturally occurring variables. It supported by Johnson and Christensen (2012), states that the researcher studies the relationship between one or more quantitative independent variables and one or more quantitative dependent variables. There is correlation coefficient, which is a numerical index that provides information about the strength and direction of the relationship between two variables. It provides information how variables are associated. More specifically correlation coefficient is a number that can range from -1 to 1, with zero standing for no correlation at all. If the number is greater than zero, there is a positive correlation. If the number is less than zero, there is a negative correlation. If the number is equal to zero, there is no correlation between the two variables. If the number is equal to +1.00 or equal to -1.00, the correlation is called perfect. Positive correlation is present when scores on two variables tend

to move in the same direction while negative correlation is present when score on two variables tend to move in opposite direction - as one variable goes up, the other tends to go down, and vice versa.

The interval coefficient for interpreting the correlation coefficient is shown in Table 1.

The Level of Correlation	
Interval Coefficient	Level of Correlation
0.00 - 0.34	Very Weak
0.34 - 0.40	Weak
0.41 - 0.64	Fair
0.65 - 0.84	Strong
0.85 - 1.00	Very Strong

Table 1The Level of Correlation

(Source: Johnson and Christensen, 2012)

Correlational designs are procedures in quantitative research in which investigators measure the degree of association (or relation) between two or more variables using the statistical procedure of correlational analysis. According to Creswell (2012), there are two primary types of correlational research design; explanation and prediction. The explanatory research design is a correlational design in which the researcher is interested in the extent to which two variables (more) co-vary, that is, where changes in one variable are reflected in changes in the other. Explanatory design consists of a simple association between two variables or more than two. The characteristics of this design are that the researchers correlate two or more variables, collect data at one point in time, analyze all participants as a single group, obtain at least two scores for each individual in the group—one for each variable, report the use of the correlation statistical test (or an extension of it) in the data analysis, and make interpretations or draw conclusions from the statistical test results.

The prediction studies examine correlationd between variables, but the goal is to identify one or more variables that can predict changes in another variable measured at a later point in time (Lodico et al., 2010, p. 85). Researcher seeks to anticipate outcomes by using certain variables as predictors. This design is useful because it helps anticipate or forecast future behavior. The purpose of this design is to identify variables that will positively predict an outcome or criterion. A predictor variable is the variable used to make a forecast about an outcome in correlational research while criterion variable is the outcome being predicted.

In this form of research, the investigator identifies one or more predictor variables and a criterion (or outcome) variable. Based on Lodico et al (2010), the following characteristics of correlational research are:

- Measurement of at least two (but usually more) variables thought to be related.
- 2. Data are collected from one randomly selected sample of participants.
- 3. Data are collected at one point in time.
- 4. Scores on each variable are obtained for each individual.

5. Correlations are computed between the scores for each pair of variables using statistical tests.

# 2.2 The Concept of English Proficiency

English language proficiency is utilized as a scale to measure the degree of an individual's relation in the fields of economy, business, politics, society, and education. It supported by Delisle (2010), there are a multiple options to measure the language proficiency level of language learners. Some of the proficiency tests are standardized international tests, such as Test of English as a Foreign Language (TOEFL), and International English Language Testing System (IELTS) (Yuyun et al, 2018, p. 1). These two high stakes tests measure the test takers ability in using the language skills in reading, listening, writing, and speaking. Based on the test taker's performance on the whole range of 15 tasks, an overall mark is given for TOEFL and IELTS. Students may take these tests to validate their English proficiency and can choose to use the scores of these tests in the application of English-medium universities. The role of English proficiency is fundamental for students to attain their degrees in English- medium universities (Chen & Duanmu, 2010, p. 6). Some universities accept an overall score for these tests, while some highlight the scores for each skill students should attain to pursue their education in English-medium universities.

Proficiency is regarded as a continuum which means proficiency can be considered as a scale of related skills of language slightly and continuously changing in each level. As a continuum, proficiency is split into levels that include the gradually changing successive abilities in the use of language with the prior levels prerequisite to accomplish the following levels (Tedick, 2006). For the use of language function, context/content, and accuracy are accepted as the three basic criteria. Function represents the individual's ability to complete a task linguistically, like asking questions, or describing; context/content refers to the setting of the functions; and accuracy means the level of correctness in the delivery of the message. These three factors are used to assess the ability of an individual's language use and each factor extends in breadth as the level of proficiency increases. Additionally, language proficiency is about to what degree a person can use reading, listening, writing, and speaking skills as well as how much a person can understand the language in context (Rahman and Akhter, 2017, p. 32). It means all of part become the crucial factors in English proficiency.

Proficiency is defined as the outcome of language learning, and it is about learning the skills of the language. It supported by (Racca and Lasaten, 2016), it necessitates the demonstration of skills and use of the language. There are a 14 variety of forms of assessment to evaluate the language ability and/or the achievement of the language learners. The amount of language a person has learned can be assessed with proficiency tests. Proficiency tests measure an individual's overall linguistic ability. These are criterion-referenced, standarddriven tests. Speaking, writing, listening and reading skills are tested in a language proficiency test. The assessment of four skills may provide information for test takers whose cognitive ability levels differ. When four skills are measured separately, language learning fulfills its aim.

## 2.3 The Factors Affecting of English Proficiency

There are some factors influences students proficiency. Some factors such as internal and external influences students proficiency in a learning process. The factors as follows:

# **2.3.1 Internal factors**

#### **2.3.1.1 Intelligence**

In the learning process, so many factors influence students' performance. Especially in learning English. One of the factors is intelligence. Intelligence can be defined as a potential capacity. The potential capacity is possibly a function of heredity, congenital, and development (Firdaus, 2017, p. 19). The growth of intelligence toward the potential capacity may be impeded by environmental stresses and strains or may be accelerated by proper stimulation. It is important to keep thinking that intelligence is complex and that individuals have many kinds of abilities and strengths, not all measured by traditional IQ tests. Many students whose academic performance has been weak have experienced considerable success in second or foreign language learning.

## 2.3.1.2 Talent

Talent is an innate ability that a person has since he/she was born. Every human has abilities different from others. An ability can be developed if students are given can show and use their talents or abilities in the learning process, it will allow students to get a higher achievement. One of the talents in learning languages is known as language aptitude. It is supported by (Rahayu, 2015), education, knowledge, and experience gained from the environment, through observation, imitation, experiments that take place repeatedly, and involve all the potential intelligence of children. It means that talent is the main factor that influences students' ability to learn languages.

## 2.3.1.3 Interest and Motivation

interest and motivation in learning is a considerable modality to reach the learning outcome. Motivation is the extent to which you make choices about goals to pursue and effort you will devote to that pursuit. If the students have interest to the certain subject, usually they will be motivated to the subject which will encourage students' achievement in learning. In addition, A high degree of motivation engenders an active and aggressive attitude regarding educational goals and motivation as the attribute which moves an individual to do or not to do something (Marzulina, 2018, p. 130). However, Motivation is important variables to support the students in learning.

## 2.3.1.4 Learning Style

Learning style has contributed for the students to reach learning goals. Learning style as cognitive, affective, and psychological traits are relatively stable indicators of how learners perceive, respond, and interact with the learning environment. It means that the learning style enables students to achieve high achievement.

### **2.3.2 External Factors**

## 2.3.2.1 Learning Environment

An environment is part of the instructional process because it can influence the students. A learner lives in a complex learning situation that may be divided into three parts: the social environment, the physical environment, and the cultural environment. Parts of the social world, the physical world, and the cultural world are selected to become stimuli to the learner. The educational environment is defined as the emotional, physical, and intellectual climate establish by the teacher and students to contribute to the wholesome learning situation. It supported by (Arib, 2017,p. 2) motivation in learning also shaped by various factors such as family, teacher, and school. It has to support the instructional process. In shortly, educational milieus consist of the family like parents and sibling, school, and community.

# 2.3.2.2 School

School hall, teacher's quality, and classmates have to affect the students learning the outcome. School is the second surrounding that gives influence to the student's achievement. It supported by Lestari (2017), that classroom interaction is an interaction between teacher and students when they create interaction with each other. It means that school is educational surrounding which has been structured, has system and organization good for the development of ethnic value, moral, bounces, culture, spiritual, discipline, and science. In addition, the teacher can be applied interactive multimedia with local-content-based (Pitaloka, 2014, p. 3). It can be concluded, if the school has succeeded in creating the conducive learning condition, so the students will be encouraged to compete in learning, their ability, and knowledge give effect on their achievement.

The type of high school as well as the place of the school may have an effect on language proficiency. The environment that schools are surrounded by and the type of the high school may indicate the socio-economic status of place and students' parents, and these factors may influence students' language proficiency (Robertson, 2007); (Purwanto, 2017). The instruction in English may show differences according to the school the students attend, although there is a centralized curriculum in high school education. Students of high socio-economic status are more likely to attend private institutions where they start learning English in kindergarten. Nevertheless, students attending state schools start learning English in the second year of primary education. Therefore, the age students start their English education can be different in accordance with the school they attend.

### 2.3.2.3 Society

A good society has an effect on students. The students lived in the same environment as the students are educated and knowledgeable ones, the children will be encouraged to have the high and qualified education too. The students will be pushed automatically to achieve high learning achievement to equalize their status in society.

## 2.3.2.4 Environment

The condition of the house, school conditions, environment, atmosphere, and climate can influence the process, results, and objectives of learning. The places with good and appropriate climate can encourage good learning process which unintentionally will retrieve high learning achievement of the students.

# 2.3.5 English Achievement

Achieving knowledge is not an easy job. It takes a long-term process called learning. Learning involves time, effort, motivation, and energy to comprehend learning material into new knowledge that can be applied in true life as a skill. Learning is an activity that aims to change behavior, attitudes, habits, knowledge, skills, and others. because of individual experience interacting with the environment, a learning activity or procedure is intentionally associated with the learning process actors (students). This process requires students to achieve what is stated as the goal of the activity. Besides that, learning also requires students to have creative goals in learning that can assist them to build their own character as human beings knowledgeable and qualified. It supported by (Silfia 2016, p. 41), learning strategy is an effort to achieve values. In contrast, learning outcome are more associated with positive educational outcomes such as task involvement and intrinsic value in the learning process. It can be concluded that learning requires student involvement in the process to achieve their own goals. When students are already involved in learning processes or activities, the learning objectives they have achieved are known as an achievement. The word of achievement comes from reaching which means successfully achieving, it means that the achievement is achieved by students after they have been taught in a period of the learning process by gaining knowledge, skills, insight, certain goals, status, or standards with effort, skill, courage, among others.

Something that someone can do is called aptitude, while what the students does is called the achievement. Success in learning is simply defined as the results obtained by students after learning the subject matter in a certain time where the number usually symbolizes it. Achievement obtained by students in the learning process is shown and proven through the values given by the teacher to students about the exercises or assignments. It supported by (Elhefni, 2011, p. 313), achievement refers to learning outcomes obtained from experience to get a knowledge and to achieve a certain goal. As shown above achievement in learning is what someone can and has done when the learning process is running. However, this achievement is called learning achievement.

Learning achievement is about how students can master the material or subject of attainment. Learning achievement is determined by the efforts and skills of students in learning material. It supported by (Astrid, 2012, p. 273) shows the degree of students' performance explained by a cognitive, effective, and psychomotor standard. In the same way, the higher the efforts made by students, the superior to they will get. In shortly, an achievement in the learning process is the results achieved by students who participate by conducting learning activities and assignments given at school. Additionally, English achievement has strong relation with academic achievement. Academic achievement has always been the center of educational research and despite varied statements about the aims of education, the academic development of the child continue to be the primary and most important goal of education. Hence, academic is also important purpose in education. In relation the academic, English achievement means the competency that achieved by the students in English subject.

# 2.4 The Concept of Language Aptitude

Aptitude is also known as one's intelligence and potential in acquiring knowledge. This is one factor that distinguishes a person's speed in the learning process. It supported by (Selinker, 2008), aptitude is referred to learn new knowledge or new skill such as arts, music, and languages. It means that some of the students catch the material points easier but some of the students need much longer time in comprehending a material given. In addition, aptitude is a complex ability that includes, among others, processing speed, short and long-term memory, rote memory, planning time, pragmatic abilities, interactional intelligence, emotional intelligence, and self-efficacy. However, the phenomena on happened are caused by the intelligence or potential had by the students.

In language learning, can acquire language is known as language skills, it is also called individual differences that can be identified in language learning. Language talent is the difference in the extent to which they have the natural ability to learn a second language. Language aptitude is briefly defined as the ability or talent to learn a foreign language, much of may be innate or at least developed over a long time. This ability is in part related to general intelligence and in part distinct. Some of the students just seem to learn language easier than the other students, this is one of the indicators that show the students difference in language aptitude level.

Language aptitude as one's ability to learn another language. No talk of language aptitude for learning one's first language, it is because language aptitude cannot be equalized with cognition development. Language aptitude along with attitude and motivation are the predictors in foreign language learning. It is considered as one of the important and very crucial aspects to be considered in monitoring the students in learning the language especially foreign language. strong evidence that it is, learners who score highly on language aptitude test typically learn rapidly and achieve higher levels of second language proficiency than learners who obtain the low score.

#### 2.5 The Language Aptitude Testing

Some tests developed by experts to measure language aptitude. The three best-known tests used for measuring linguistic aptitude are the Modern Languages Aptitude Test (MLAT), developed by (Carroll & Sapon, 1959) for adults, and high school students, the Pimsleur – Language Aptitude Battery (PLAB) developed by Pimsleur in 1966 for students in grades 7-12, and LLAMA language aptitude test developed by Paul Meara in 2005 for the students of English language and linguistics. In addition, the U.S. Department of Defense (DOD) has developed the "Army Language Aptitude Test" (ALAT), (a short language aptitude test), and the Defense Language Aptitude Battery (DLAB) by Peterson & Al-Haik in 1976. The language aptitude test provides valuable information about learner ability to cope with language learning, especially in the classroom and it also can provide considerable data about an individual's learning skill and learning style. The purpose of these aptitude test to predict how well, relative to other individuals, an individual can learn a foreign language in a given amount of time, and under given conditions. Basically, the language aptitude is an ability that largely determines how quickly and easily an individual can learn a foreign language in a language course or language training program.

In this research, the test used to obtain data about students' language aptitude was the LLAMA language test manual (LLAMA). It supported by Meara (2005), the LLAMA test was to measure the participants' vocabulary learning (LLAMA\_B), sound sequence recognition (LLAMA\_D), sound symbol (LLAMA\_E), and grammatical sensitivity (LLAMA\_F). The LLAMA test was independent of specific foreign language, and predictive of success in the learning of any language. The LLAMA evaluates skills and abilities related to auditory memory, making inferences, focusing on what is most important, cognitive restructuring of information, sensitivity to grammatical structure, and effective rote learning. This information has proved very useful in helping learners. LLAMA test also predict how well, relative to other individuals, an individual can learn a foreign language in a given amount of time and under given conditions.

## 2.6 The Components of Language Aptitude

The classical model of language aptitude is a four-component model developed by Carroll and Sapon as a result of a series of factor analysis studies done on the whole gamut of variables operationalizing abilities that were thought to be important in foreign language learning. According to Rysiewicz (2008, P. 572), the following set of factor-analysed abilities were identified and interpreted:

### 2.6.1 Phonemic Coding Ability

This is an ability to discriminate among foreign sounds and to encode them in a manner that they can be recalled later. This ability carries the indicator of phonetic coding ability which measures the students' ability to store new language sounds in memory which enable them to be successful foreign language pronunciation. This would certainly seem to be a skill involved in the success of language learning.

# 2.6.2 Grammatical Sensitivity

This is recognize the function of words in sentences. It does not measure name or describe the functions. It supported by Krashen (2002), it carries the indicator of words in sentences used to measure the students' individual ability to demonstrate his awareness of the syntactical patterning of sentences in a language. In short, the skill mastery of grammatical sensitivity will aid to learn another language.

## 2.6.3 Inductive Language Learning Ability

This is infer, induce, abduct rules or generalizations about language from samples of the language. The students can use their analytical thinking and relate with their prior knowledge of the language itself. This ability carries the indicator of spelling clues which measured students' ability to examine language material, from this to notice and identify patterns and correspondences, and relationship involving either meaning or grammatical form. It supported by (Selinker, 2008), A learner proficient in this ability will be less reliant on well-presented rules or generalizations form a teacher or material. It means that many linguists suggested that it is probably through this factor that foreign language aptitude is most closely related to general intelligence.

# 2.6.4 Rote Learning Ability

This is learn and retain associations between words in a new language and their meaning in English. It also can be said as can make and recall associations between words and phrases in a native and foreign language. It appears that this ability concern more on memory an important aspect in learning a language which carries the indicators of paired associates in MLAT test developed by Carol And Sapon. Many linguists suggest that the second or foreign language learning is much more an accomplishment of memory for text than of the analysis of the text. In addition, Dr. Paul Pimsleur of Ohio State University also researched about language aptitude, which led him to identify two main components or factors in language aptitude, they are:

## 2.6.4.1 Verbal Ability

This is an ability to handle the mechanics of learning a foreign language. It means both familiarities with words tested by the LAB in 'vocabulary part' and reason analytically about verbal materials measured by the LAB in language analysis part.

# 2.6.4.2 Auditory Ability

This is can hear, recognize, and reproduce sounds in a foreign language. This ability indicates how well a student would be able to listen and produce phrases in a foreign language. Both main components lead to the high language aptitude which determines the success of language learning and acquisition.

# 2.7 The Relationship Between Language Aptitude and English Proficiency

Learning proficiency especially the achievement in learning English as a foreign language is determined by several factors of learning which include language aptitude as one of it. To show how important language aptitude for the learning of foreign language, AERA (American Educational Research Association) also reviews some points about the importance of it the language aptitude is the second most important factor in learning a foreign language after age. They also rate aptitude, more important than contextual factors, including teaching method, a textbook used, or teacher's quality.

Language aptitude relates directly to conscious language learning. Empirical studies on language aptitude showed that the components in language aptitude show the strong relationship to second or foreign language proficiency in 'monitored' test situation and when conscious learning has been stressed in the classroom. Many linguists concluded that language aptitude appears to be the major importance in the acquisition of second or foreign language skills acquired through instructions which can be claimed as a learning process. Students with higher language aptitude will appear to learn faster to students with lower aptitude which higher aptitude can lead students to achieve proficiency in learning the language.

Language aptitude and English proficiency in learning language are positively correlated. Language aptitude consists of relatively stable factors within an individual that promote successful language learning. It means that high language aptitude will stimulate students to reach high achievement in learning, especially learning English, while low language aptitude will lead students to get low achievement in learning English. This ability or language aptitude is called upon when the students try to learn grammatical rules and apply them in constructing and comprehending new sentences in that language related to the success of foreign language learning. In summary, language aptitude has a strong and positive relationship with the proficiency in learning English as a foreign language.

## 2.8 The Previous Related Studies

The previous study in language aptitude and English achievement can be found conducted by Rista (2014). She investigated the correlation between students language aptitude and their achievement in learning English at State Senior High School 3 Pekanbaru. The population of the research was eleventhgrade students and the sample of this study consisted of 68 students taken from five classes science department and four classes for the social department. From her study, she found (1) The students who had good score in language aptitude test also had good score in their English learning achievement; (2) The students who had excellent score in their English learning aptitude test also had excellent score in their English learning achievement; (3) and only a few of them were not have a linear score between their language aptitude and English achievement. when the students' language aptitude was low, their achievement in learning English would also be low, and the students' language aptitude was high, their achievement in learning English would also be high. The similirities between this study and previous study are, 1) Rista used the same strategy, 2) Rista also used language aptitude test and documentation in this research. Then the differences between the present study and the previous study are, 1) Rista used MLAT, used more than two of research problems, 2) Rista used senior high school level, she also used science students and sosial students, 3) Rista focused on English achievement.

Kazuya Saito, Yui Suzukida, and Hui Sun (2018), conducted a research entitled "Aptitude, Experience And Second Language Pronunciation Proficiency

Development In Classroom Settings: A Longitudinal Study" In their quantitative research, This study reports on a longitudinal investigation of the complex relationship between aptitude, experience and L2 pronunciation learning over one academic year among 40 first-year Japanese university students with six years of FL education. Spontaneous speech samples were elicited from the learners at the beginning, mid and end of the year, and analyzed for global (comprehensibility) and specific (segmentals, syllables, prosody, fluency) constructs of L2 pronunciation proficiency. Following Meara's (2005) framework, three components of aptitude potentially related to pronunciation development were featured and measured via the LLAMA test-(a) associative memory (LLAMA-B), (b) phonemic coding (LLAMA-E) and (c) sound sequence recognition (LLAMA-D). Most notably, care was taken in this study to track all participants' FL experience (inside/outside classrooms) within a specific time framework of the study one academic year. The similirities between this study and previous study are, 1) they used same strategy, 2) they used LLAMA, 3) and they used university student's level. Then the differences between this study and previous study are, 1) they used the post-hoc interviews, 2) students' arts and social sciences programs level.

## **2.9 The Hypotheses**

The hypotheses of this study are proposed in the forms of null and research hypotheses below:

- Ho: There is no significant correlation between language aptitude and English proficiency of the undergraduate EFL students of UIN Raden Fatah Palembang.
  - H1: There is a significant correlation between language aptitude and English proficiency of the undergraduate EFL students of UIN Raden Fatah Palembang.
- 2. Ho: Language aptitude does not significantly influence English proficiency of the undergraduate EFL students of UIN Raden Fatah Palembang.
  - H1: Language aptitude significantly influences English proficiency of the undergraduate EFL students of UIN Raden Fatah Palembang.