CHAPTER II

LITERATURE REVIEW

The theoretical foundation of the study is elaborated in this chapter. It involves second language (L2), second language acquisition (SLA), language aptitude, conditional sentences and related previous studies.

2.1 Second Language (L2)

The word 'second' in second language refers to any language that is learned after the learners mastered their first language, whether that is learning third or fourth language (Ellis, 1997). Learning second language becomes important since people are not only communicating with those who share both nationality and first language, but also with people who live in another country in order to make the communication works smoothly. Second language can be identified as additional languages after mother tongue (Ellis, 1997).

Second language can be called as target language (TL) which means "any language that is the aim or goal of learning" (Saville-Troike, 2006, p. 2). In L2, there is the term called second language acquisition (L2 acquisition / SLA) which means the learning process of second language learners (Saville-Troike, 2006). The notion of second language acquisition will be delivered in *section 2.2*.

2.2 Second Language Acquisition (SLA)

As mentioned in section 2.1, second language acquisition is a learning process taken by second language learners (Saville-Troike, 2006). Regarding L2 Acquisition, Ellis (1997) explains that as "the way in which people learn a language other than their mother tongue, inside or outside their classroom" (p.3). Second language acquisition itself is a phenomenon involving psychology and linguistics frameworks as well as "their subfields of applied linguistics, psycholinguistics, sociolinguistics, and social psychology" (Saville-Troike, 2006,

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

6

p. 2). He (2006) points out that the researchers of those fields have different perspective of second language acquisition. The differences are presented in Table 2.1

Table 2.1

The Perspective of Second Language Acquisition from Linguists, Psychologist, Psycholinguists, Sociolinguists, and Social Psychologists (Saville-Troike, 2006, p. 3)

The Researchers	Perspective
Linguists	Emphasizing the characteristics of the differences and similarities in the languages that are being learned, and the **linguistic competence** (underlying knowledge) and **linguistic performance** (actual production) of learners at various stages of acquisition.
Psychologists and Psycholinguists	Emphasizing the mental or cognitive processes involved in acquisition, and the representation of language(s) in the brain.
Sociolinguists	Emphasizing variability in learner linguistic performance, and extend the scope of study to **communicative competence** (underlying knowledge that additionally accounts for language use, or **pragmatic competence**).
Social Psycholinguists	Emphasize group-related phenomena, such as identity and social motivation, and the interactional and larger social contexts of

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

7

learning.

When it comes to second language acquisition, there are two main factors which are needed to be considered thoroughly; the psychological factors (intellectual processing which includes induction and explication, memory, and motor skills) and social factors (natural situation and classroom situation) (Steinberg, 1993). Both factors affect second language acquisition's perspective of children and adults learners. Steinberg (1993) explains that induction in psychological factors includes learning rules of second language based on learners' identification and discovery, while explication includes giving explanation of L2's rules and structures by using learners' native language.

The research of second language acquisition can be considered as an investigation where non-native speakers learn second language as well as acknowledging their L2 learning process (Mansouri, 2007). When it comes to research on second language acquisition, Krashen (2002) points out:

> "…area of second language research and practice that the acquisition learning hypothesis helps to interpret is work in second language *aptitude* and *attitude*, providing a parsimonious explanation for what had appeared to be a strange finding: both language aptitude (as measured by standard tests) and attitude (affective variables) appear to be related to second language achievement, but are not related to each other." (Krashen, 2002, p. 19)

Based on the statements above, it is clear that even though aptitude and attitude does not related to each other, but both subjects contribute to the development of second language research and practice. In the case of language aptitude, it can be measured by aptitude's standardized tests. The types of aptitude tests will be explained further in the next section.

2.2.1 SLA and Grammatical Concept

Larsen-Freeman and Long (1991) stated that there are about forty theories of second language acquisition that can be studied. Some of those theories

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

8

relate to the concept of L2 grammars or non-native grammars due to the fact that it plays an important role in acquiring second language for learners. Non-native grammars can be called as *interlanguage grammars* (White, 2003). The concept of *interlanguage* itself was proposed in 1960s and 1970s by Corder (1967), Nemser (1971), Selinker (1972), and Adjémian (1976) (White, 2003). White (2003) also stated that "these researchers pointed out L2 learner is systematic and that the error produced by learners do not consist of random mistakes, but, rather suggest ruled-govern behaviour" (p.1).

Regarding interlanguage, Ellis (1997) states:

> "The term interlanguage was coined by the American linguist, Larry Selinker, in recognition of the fact that L2 learners construct a linguistic system that draws, in part, on the learner's L1 but is also different from it and also from the target language." (Ellis, 1997, p. 33)

According to Klein and Perdue (1997), an example of interlanguage can be identified in the way adult L2 learners discovered the basic stage of grammar involving three grammatical rules that can be found in a sentence in every second language. Those rules in a sentence consist of a Noun Phrase (NP) which is followed by verb and another NP can be added, for example, *girl take bread*; a Noun Phrase which is followed by a copula and either NP or adjective, for example, *it's bread*; a verb which is followed by NP, for example, *pinching its* (Cook, 2012, pp. 2-3).

In the case of grammars, second language learners used to analyze or identify the structure of sentences which is called syntax. Syntax itself is one of many important perspectives which are learned by second language learners thoroughly. Gass (1984) points out "in attempting to come to an understanding of the processes involved in acquiring the syntax of a second language, it has become evident that we must consider generalizations and approximations of target language (TL) structures" (p. 115). The basic knowledge of target language is given as the first step to help learners

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

9

understand the language. However, the basic knowledge of TL is not enough to enrich the development of syntax. Due to the fact, there are many additional factors to influence the development of syntax of second language, such as language transfer and language universals (Gass, 1984).

Language transfer can be described as the possibility to transfer the meaning and the form of learners' native language and culture to the target language and culture (Lado, 1957). According to Gass (1984), language transfer or the use of learners' native language structures on L2 plays as "one of a number of cognitive mechanisms which underlie second language acquisition (p. 117).

However, in order to make language transfer works on L2 development, there is a crucial prerequisite that have to be considered; that is "a certain amount of similarity between L1 and L2 structures to enable the learner to recognize that a similarity between the L1 and the L2 structures exists" (Gass, 1984, p. 118). The statements are supported by some studies, such as from a study that conducted by Keller-Cohen (1979) that investigated the comparison of a Japanese, a Germany, and a Finnish's child acquisition of English interrogative structure. The result of his study showed that "the lack of congruence between L1 and L2 structures resulted in the slower development of the productive use of yes/no questions in English on the part of the Finnish child in comparison with the German and Japanese children" (Keller-Cohen, 1979, cited in Gass, 1984, p. 119).

Another factor that influences the development of syntax is language universals which can be described as "linguistics elements which are common to all languages (in the form of either absolute or statistical universals)" (Gass, 1984, p. 126). The absolute of language universals means the set of universals' linguistics elements which are used or common in all languages, while the statistical of language universals means the set of universals' linguistics elements which are used or common in most or certain languages (Gass, 1984). Language universals can be used as guidance in SLA in the context of native language as well as target language

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

10

system (Grass, 1984). Sharwood Smith (1980) and Kumpt (1982) stated that language universals can be tested as long as there is the availability of second language data as its basic concept.

2.3 Language Aptitude

The term language aptitude relates closely to second language achievement (Krashen, 2002). Aptitude itself can be defined as "capacity that enhances the rate and ease of learning" (Carroll, 1981, cited in Ellis, 1994, p. 495). To make it simpler, aptitude can be associated with ability to do something (Dörnyei, 2005). In other words, language aptitude can be defined as "language learning ability" (Dörnyei, 2005). Regarding aptitude, Robinson states that:

"Aptitude is therefore a theoretical construct operationalized in the form of a test, which aims to predict phenomena that characterize second language acquisition (SLA) (such as incidental learning, metalinguistic awareness, fossilization, and others) and the extent to which successful SLA occurs as a result." (Robinson, 2013, p. 1).

Aptitude is considered to be the best way to discover how far the learners will be succeed in learning new languages (Nikolov & Ottó, 2006). Even Skehan (1989) points out that aptitude is the most reliable way to predict language learning success. It is based on many researches which investigate the correlation of language aptitude and the outcome of second language (Harley & Hart, 1997). Dörnyei and Skehan (2003) state the value of aptitude and language learning success correlates between 0.20 − 0.60. It means the relationship of language aptitude and L2 variables depicts a positive result. Regarding the correlation between language aptitude batteries and the chosen samples, Carroll states:

"The predictive validity coefficients for foreign language aptitude batteries in representative samples are typically in the range .40 to .60 against suitable criterion measures of success in foreign language attainment, such as final course grades, objective foreign language attainment tests, or instructors' estimates of foreign learning ability" (1981, p. 96)

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

11

In the context of second language learning, language aptitude plays an important role. Through aptitude, learners are able to see whether they can get best results in learning L2 compared to others. Since the concept of language aptitude is to figure out the language learning success, it is no wonder if many researchers study the phenomena more thoroughly, especially those who focus on the field of second language learning.

2.3.1 The History of Language Aptitude Test

The notion of ability testing was started about 4000 years ago when Chinese government decided to form a test to figure out the citizens' ability in order to use their services for the government's benefits or enroll them to an educational program (Cooper, 2002). Since then, another test was developed to determine one's intelligence and it started to develop in 1905 with the most well-known test regarding one's intelligence and it is called the Binet-Simon Intelligence Scale (Alshahrani, 2011).

When it comes to language aptitude, it was developed for the same reason as the development of intelligence test, that is "to identify hopelessly untalented students in state schools" (Dörnyei, 2005, p. 34). In 1920s and 1930s, many schools in United States of America paid a little attention to foreign language learning so that it was no wonder if many students in the country failed the subject (Spolsky, 1995). Since the problem started to spread and made the educators started to show their concern, they decided to develop a test called 'prognosis tests' (Dörnyei, 2005).

Spolsky (1995) points out that even though those 'prognosis tests' did not have a theoretical foundation, but they had two methods that were used in developing language aptitude test, analytical and synthetic. Analytical deals with learners' cognitive abilities, while synthetic concerns with learners' performance in second language or L2 (Dörnyei, 2005).

In 1950s and 1960s, the development of language aptitude test shone brightly with the appearance of two aptitude tests, one was proposed by John Carroll and Stanley Sapon, and another was proposed by Paul Pimsleur (Rees, 2000). Those years were also known as the second part of

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

12

language aptitude test development and labeled as its golden period in United States (Rees, 2000).

John Carroll and Stanley Sapon worked together to form an aptitude test called the Modern Language Aptitude Test (MLAT) in 1950s (Robinson, 2013). Then Paul Pimsleur proposed his own version of language aptitude test known as Pimsleur Language Aptitude Battery (PLAB) in 1960s (Sparks & Ganschow, 2001). Those two aptitude tests gained many attentions in the field of second language studies and became the foundation in making another new version of language aptitude test in the following years.

2.3.2 Language Aptitude Measurements

As mentioned in *the section 2.3.1*, there are two aptitude tests which were developed in 1950s and 1960s called the Modern Language Aptitude Test (MLAT) and Pimsleur Language Aptitude Battery (PLAB). Robinson (2013) states that out of those two aptitude tests, the MLAT which was published by Carroll and Sapon in 1959 is the most well-known aptitude test and still uses quite frequently by many researchers in the field of second language development.

Carroll and Sapon (1959) explain that MLAT divided into five parts; they are *Number Learning, Phonetic Script/Phonetic Sensitivity, Spelling Clues, Words in Sentences*, and *Paired Associates. Number Learning* deals with short-term memories and 'auditory alertness' and the language used in this part is an invented or 'new' language (Dörnyei, 2005). The test takers will listen to the name of the numbers through a cassette tape (Carroll & Sapon, 1959 cited in Dörnyei, 2005).

Phonetic Script / Phonetic Sensitivity consists of some 'nonsense words' and the test takers are expected to match those words to its written forms which are available on the test page (Carroll & Sapon, 1959 cited in Dörnyei, 2005). Similar to *Number Learning*, the test takers will hear the 'nonsense words' through a cassette tape (Dörnyei, 2005).

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

13

Spelling Clues deals with finding the synonym or close-related meaning of the stimulus words based on the way those words is pronounced; *Words in Sentences* deals with measuring the grammatical sensitivity of the test takers who are expected to find out the words which have the same functions as the underlined words in the stimulus sentences; *Paired Associate* requires the test takers to memorize some words in a foreign language intact with English translation of the words (Robinson, 2013).

Before publishing their language aptitude test officially to public, Carroll and Sapon went through an experiment to make sure that the test was reliable. They state that:

> "The Modern Language Aptitude Test is the outcome of a five-year research study conducted during the years 1953-1958 at Harvard University. In the course of this study, many varieties of verbal tests were devised and tried out; the present test is comprised of a group of relatively uncorrelated sub-tests which more or less consistently showed good validity and made unique contributions to the prediction of success in foreign languages. The experimental tests were administered to about five thousand persons." (Carroll & Sapon, 1959:3, cited in Dörnyei, 2005, p. 35).

While MLAT divided into five main parts, PLAB consists of six sections they are *Grade Point Average (GPA)* that requires test takers need to report the recent grade of history, math, science, and English; *Interest in Foreign Language Learning* which involves asking some questions to the test takers to indicate their interest in learning foreign language learning on a scale one to five; *Vocabulary* means the test takers need to answer some questions regarding English adjectives; *Language Analysis* consists of several English words which are available for the test takers to translate them into an invented language; *Sound Discrimination* is about identifying one of three similar words which is spoken through audio tape; *Sound – Symbol Association* involves identifying two or three syllables from an

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

14

invented language and choosing the right answer out of four words which are available on the test paper (Dörnyei, 2005).

Since those two successful language aptitude tests emerged in the field of foreign language education, there are other aptitude tests which are inspired by both MLAT and PLAB. They are York Language Aptitude Test which was developed by Green in 1975, the Defense Language Aptitude Battery by Petersen and Al-Halik which was published in 1976, the Aptitude Test for Studies in Modern Languages which was developed by Trost and Bickel in 1981, the German Aptitude Test which was formed by Miller and Phillips in 1982, and VORD which was developed by Parry and Child in 1990 (Dörnyei, 2005).

There are several aptitude tests which were developed in recent years, such as the Cognitive Ability for Novelty in Acquisition of Language – Foreign Test (CANAL – FT) which was formed by Grigorenko, Sternberg, and Ehrman in 2000 (Abrahamsson & Hyltestamm, 2008), and computer – based aptitude test called Swansea Language Aptitude Test (LAT) which was developed in 2003 by Meara and Lorenzo – Duz (Alshahrani, 2011). However, Meara and Lorenzo – Duz faced some problems in developing LAT due to the difficulty in coding non-Roman languages and developing an independent test (Alshahrani, 2011). Meara then developed a new aptitude test which is called LLAMA Language Aptitude Test in 2005 to solve those problems (Meara, 2005).

2.3.3 Carroll's Notions of Language Aptitude

Even though test regarding one's ability started to emerge 4000 years back, but the most influential movement of language aptitude is started by John Carroll in 1950s (Wen, 2011). Carroll and his colleague, Stanley Sapon, formed an idea to create an aptitude test which was mentioned in *the section 2.3.1* and *2.3.2.* Carroll (1981) saw the importance of foreign language learning and views that special abilities, beyond intelligence, are needed in order to success in learning foreign language.

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

15

In the field of second language learning, aptitude can be categorized as "a set of relatively fixed characteristics or talents not affected by previous learning experience" (Alshahrani, 2011, p. 17). Those talents enable learners with higher aptitude to embrace a new language easier than those with lower aptitude (Carroll & Sapon, 1959).

In accordance to his notions of language aptitude, Carroll (1981) then sets four constituent abilities which are necessary for the learners to master in order to do well in second language or foreign language learning, namely *Phonetic Coding, Grammatical Sensitivity, Rote Memory* or *Rote Learning,* and *Inductive Language Learning. Phonetic Coding* can be defined as "an ability to distinct sound, to form associations between these sounds and symbols representing them, and to retain these associations" (Carroll, 1981, p. 105). The ability requires L2 learners to pay more attention to "coding, assimilation, and remembering of phonetic material" (Dörnyei, 2005, p. 39).

Grammatical Sensitivity is "the ability to recognize the grammatical functions of words (or other linguistic entities) in sentences structures" (Carroll, 1981, p. 105). Dörnyei (2005) points out that this ability focuses on learners' awareness of grammatical concepts. Another constituent ability in Carroll's language aptitude theory is *Rote Memory* or *Rote Learning* which means "the ability to learn associations between sounds and meaning rapidly and efficiently, and to retain these associations" (Carroll, 1981, p. 105). Inductive Language Learning is "the ability to infer or induce the rules governing a set of language materials, given example of language materials that permit such inference" (Carroll, 1981, p. 105).

In the Modern Language Aptitude Test, those abilities can be measured through the five parts of the test, unless Inductive Language Learning since the ability was quite difficult to measure when the MLAT was developed for the first time in 1950s so that the measurement for the ability is not included in the test (Carroll, 1980). To solve the problem, Skehan (1989) formed an idea to combine *Grammatical Sensitivity* and *Inductive Language Learning* into one test and create a new measurement

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

16

called *Language Analytic* ability. *Language Analytic* ability also can be measured by Pimsleur – Language Aptitude Battery in section four which is called *Language Analysis*.

Furthermore, other three abilities can be measured by using the Modern Language Aptitude Test (MLAT). Part I (Number Learning) and Part V (Paired Associates) in MLAT are used to measure the learners' Rote Memory ability, Part II (Phonetic Script) and Part III (Spelling Clues) are used to measure Phonetic Coding ability, and Part IV (Words in Sentences) is used to investigate the Grammatical Sensitivity (Carroll, 1990).

Carroll's ideas of language aptitude are considered as the most influential one since the MLAT, which was developed by him and Sapon, is still used frequently in research regarding language aptitude from time to time (Sparks & Ganschow, 2001). Although there are many efforts to develop new versions of language aptitude batteries, the MLAT still serves as the most reliable predictor for language learning success (Sparks & Ganschow, 2001).

2.4 Conditional Sentences

Conditional sentences can be explained as "a two-clause sentence in which the first clause states a supposition or hypothesis and the second clause states the results if that condition is met" (Elliott, 1981, p. 4). Two clause sentences of *conditional sentences* consist of *if-clause* and *main clause* (Thomson & Martinet, 1986). For example:

If it rains, I shall stay at home

Based on the example above which was created by Thomson & Martinet (1986), the sentence *if it rains* serves as the *if-clause,* while *I shall stay at home* serves as the *main clause*.

Conditional sentences divided into four types, they are zero conditional, first conditional, second conditional, and third conditional (Aitken, 1992). Table 2.2 below explains the types of *conditional sentences* along with its forms and examples:

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

17

Table 2.2

Types of Conditional Sentences (Aitken, 1992)

Types	Description	Form	Example
Zero Conditional	To states that things are generally or always true.	*If + Present form + present simple or imperative*	If we heat waters, it boils.
First Conditional	To states future events that are likely to happen.	*If + Present Simple + Simple Future.*	If he is feeling better, he will come here.
Second Conditional	To express unreal or hypothetic condition from present point of view. Something probably could happen if a situation was different.	*If + Past Simple + would + Infinitive.*	If I had million dollars, I would give a lot to charity.
Third Conditional	To express imposs-ible situations since those situations are in the past and we cannot change what has happened.	*If + Past Perfect + would have + Past Participle.*	If I had worked harder at school, I would have got better grades.

Besides using *if* for the *if-clause*, it is highly possible to use other expression such as *when, unless, providing, provided (that), otherwise, or else, what if, suppose (that), supposing (that), even if, only if* (Evans, 1998). For the

main clause we also can use *may, might, can, could, must*, and *should* besides using either *will* or *would* (Evans, 1998).

2.5   Related Previous Studies

There are some studies which have been conducted in the area of second language acquisition or/and language aptitude. Řepová (2004) conducted a study about the possibility of how a second language learner is able to acquire language as long as there is comprehensible input available and how the output plays a little role in SLA. Her subject of the study was a male Czech adult who did his au-pair in England. His ability in English before he arrived to England was "'pre-intermediate' in terms of grammar and vocabulary or reading, but listening and speaking were rather 'elementary'" (Řepová, 2004, p. 46). She investigated how the Czech citizen survived in English speaking country even though he did not produce enough output and tended to avoid speaking in English in regular basis. The result of the study revealed that the subject of her study showed a promising progress after nine months of observation with his comprehension in English played the significant role compared to his output.

Alma Jeftić (2011) stated that cognitive theories are one of some crucial parts in second language or foreign language acquisition and can be used to emphasize the role of language aptitude in order to understand or comprehend the second language or foreign language. In her study, Jeftić investigated the concept of ambiguity in foreign language acquisition and the role of language aptitude. She argues that "ambiguity resolution is a key component of language comprehension and it is similar to ambiguity in perceptual process" (2011, p. 1). The study used the Cognitive Ability for Novelty in Acquisition of Language-Foreign Test or CANAL-FT as the instrument.

In his research, Winke (2013) stated that out of four aptitude components, such as rote memory, grammatical sensitivity, working memory, and phonetic coding, rote memory contributed greatly to advanced Chinese language learner in listening, reading, and speaking materials, while working memory had the least impact for them. He investigated 96 English native speakers who learned Chinese

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

19

as their second language. Besides using the Modern Language Aptitude Test as the main instruments for testing participants' aptitude, Winke also used phonological working memory test as well as questionnaire on motivation and strategy use. When it comes to the result of questionnaire on motivation and strategy, Winke stated that both had an equal impact.

A paper from Hummel (2007) revealed the relationship between aptitude, phonological memory (PM), and second language proficiency in non-novice English adult learners. The samples of his study were 77 French native speakers who chose Teaching English as Second Language major in a university. For the instruments, he used Spelling Clues, Paired Associates, and Words in Sentences from MLAT, the phonological memory (PM) test, and MTLEP for the measurement of L2 proficiency since the test is considered correlates greatly to TOEFL ($r = .80$). The result of his study implied "aptitude subtests and PM together predicted 29% of the variance in L2 proficiency" (Hummel, 2007, p. 1).

A thesis by Bell (2008) pointed out that aptitude is important to explain the differences among second language learners in the context of French grammatical gender. 36 adult non-native French speakers volunteered to participate in her study. She used four main components of language aptitude to investigate the differences of awareness level on second language learners. MLAT was used to measure rote memory, grammatical sensitivity, and phonetic coding ability, while Part IV (Language Analysis) in Pimsleur Language Aptitude Battery (PLAB) was used to measure inductive language learning. The result of the study showed that inductive language learning "predicted membership to the aware and unaware group accurately 72.22% of the time (Bell, 2008, p. 4). She also stated that inductive language learning played an important role on awareness of French grammatical gender.

A thesis from Alshahrani (2011) explored the relationship between foreign language aptitude and second language proficiency of 56 male students who enrolled King Khalid University in Saudi Arabia and took major in English. She used MLAT (Spelling Clues, Words in Sentences, and Paired Associates) in Arabic, social demography sheet, and language proficiency test as the study's

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

20

instruments. She analyzed the participants' progress in language proficiency after they had intensive English course in seven months. The result of the study implied that before the intensive course of English, language aptitude presented the positive correlation with English language proficiency ranging from .27 to .34. After seven months, the relationship of both variables remained steady since language aptitude did not affect the progress of English proficiency within that period of time.

Al-Khawalda (2013) investigated the interpretation of English conditional sentences as well as the reason behind the interpretation among Arabic native speakers. The result of his study stated that those who participated in the study, 100 Arabic native speakers, did not aware of the variation of English conditional sentences after analyzing ten sentences.

A thesis from Cheng (2005) identified the differences between English and Chinese conditional sentences syntactically and how the issue affects Chinese native speakers' acquisition of English. After analyzing the data from 98 Chinese native speakers who have participated in the study, the result revealed that "the acquisition order to syntactic complexity of the conditional sentences. On top of that, it is important to be aware of how L1 transfer effects interact with the syntactic complexity factor in the ESL's production of English conditionals" (p. 2).

The previous studies elaborate how language aptitude relates to other components in second language learning. Therefore, this presents study attempts to find out the correlation between language aptitude and English second language learners' mastery of conditional sentences. This study also analyzed the correlation of three language aptitude components such as *Rote Memory, Phonetic Coding*, and *Grammatical Sensitivity* with English second language learners' mastery of conditional sentences.

Nurdini, 2014
LANGUAGE APTITUDE AND ITS RELATION TO ENGLISH SECOND LANGUAGE LEARNERS' MASTERY OF GRAMMATICAL RULES
Universitas Pendidikan Indonesia | repository.upi.edu | perpustakaan.upi.edu

21