DISSERTATION

THE CORRELATION BETWEEN SCHEMATA (GRAMMATICAL, VOCABULARY & SOCIOCULTURAL KNOWLEDGE) AND READING COMPREHENSION OF STUDENTS IN ENGLISH AS A FOREIGN LANGUAGE

KORELASI ANTARA SKEMATA (PENGETAHUAN GRAMATIKAL, KOSAKATA & SOSIOKULTURAL) DAN PEMAHAMAN BACAAN PADA MAHASISWA BAHASA INGGRIS SEBAGAI BAHASA ASING

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**PROGRAM STUDI ILMU LINGUISTIK
SEKOLAH PASCASARJANA
UNIVERSITAS HASANUDDIN MAKASSAR
2020**

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Submitted in Partial Fulfillment of the Requirement for Doctoral Degree of Study Program of Linguistic Science

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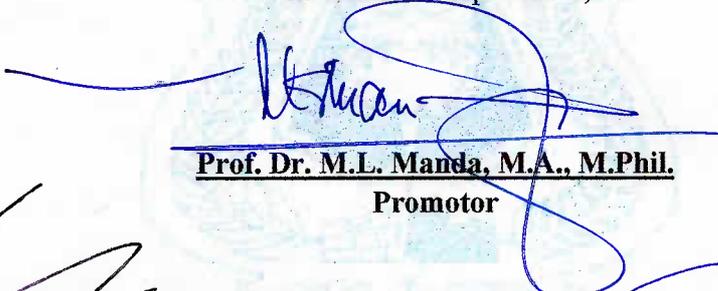
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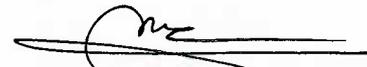On December 21st, 2020

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Yang Menyatakan

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ABSTRACT

Radiah: *The Correlation between Schemata (Grammatical, Vocabulary, & Sociocultural Knowledge) and Reading Comprehension of Students in English as a Foreign Language* at English Education Department of Teacher Training Faculty of the Muhammadiyah University of Makassar (Supervised by M.L.Manda, Abdul Hakim Yassi, and Ria Rosdiana Jubhari)

This research aims to find out the influence of grammatical, vocabulary, and sociocultural knowledge in the students' reading comprehension and the correlation among the students' schemata knowledge about the grammatical, vocabulary and sociocultural knowledge in influencing the reading comprehension.

The present research was performed using Mixed Method Research by focusing on the Sequential Explanatory Design or two-phase design. The Quantitative Method phase used Correlational Research, meanwhile in Qualitative Method used open-ended questionnaires, and the data are analyzed by Miles and Huberman Models. The research population is the Sixth Semester Students at the English Education Department of Teacher Training Faculty of the Muhammadiyah University of Makassar; the sample was 40 students selected by Purposive and Simple Random Sampling Technique.

Regression data analysis showed that vocabulary and grammatical knowledge significantly influence the students' reading comprehension, but neither does sociocultural. The correlation analysis showed that (1) there is a correlation between grammatical and vocabulary knowledge toward students' reading comprehension; (2) there is a low correlation between sociocultural and vocabulary knowledge but no correlation with grammatical knowledge in comprehending the reading texts. These results are strengthened by the qualitative data analysis that showed the significant influence and correlation of vocabulary and grammatical knowledge toward students' reading comprehension. This may be confirmed that current research findings account for as the research gap reinforcing that the EFL students could not utilize their sociocultural knowledge to a greater extent in comprehending the English reading texts due to their reliance on their grammatical and vocabulary knowledge. This implies that the formal and the content schemata do not significantly correlate each other in influencing the EFL students' reading comprehension. Therefore, the EFL students' good sociocultural knowledge must be supported by good grammatical and vocabulary knowledge in comprehending the English reading texts.

Keywords: schemata knowledge, formal schemata, content schemata, sociocultural knowledge, grammatical knowledge, vocabulary knowledge

ABSTRAK

Radiah: *Korelasi antara Skemata (Pengetahuan Gramatikal, Kosakata & Sosiokultural) dan Pemahaman Bacaan pada Mahasiswa Bahasa Inggris sebagai Bahasa Asing* pada Prodi Pendidikan Bahasa Inggris FKIP Universitas Muhammadiyah Makassar (Dibimbing oleh M.L.Manda, Abdul Hakim Yassi, and Ria Rosdiana Jubhari)

Penelitian ini bertujuan untuk mengetahui pengaruh pengetahuan *grammatical, vocabulary, and sociocultural* terhadap pemahaman bacaan dan korelasi antar pengetahuan mahasiswa tentang *grammatical, vocabulary, and sociocultural* dalam mempengaruhi pemahaman bacaan.

Penelitian ini dilakukan dengan menggunakan Metode Penelitian Campuran (*Mixed Method Research*) dengan berfokus pada desain *Sequential Explanatory/*Desain Dua Fase. Fase Metode Kuantitatif menggunakan Penelitian Korelasi, sedangkan di fase Metode Kualitatif menggunakan data *open-ended questionaire* dan dianalisis dengan Model *Miles and Huberman.* Populasi penelitian ini adalah mahasiswa semester enam Prodi Pendidikan Bahasa Inggris, FKIP Universitas Muhammadiyah Makassar, dan sampelnya terdiri dari 40 mahasiswa yang diseleksi dengan tehnik *Purposive and Simple Random Sampling Technique.*

Analisis data regresi menunjukkan bahwa pengetahuan *vocabulary* dan *grammatical* mempengaruhi secara signifikan pemahaman bacaan mahasiswa tetapi pengetahuan *sociocultural* tidak mempengaruhi secara signifikan. Analisis korelasi menunjukkan adanya korelasi antara pengetahuan *grammatical* dan *vocabulary* terhadap pemahaman bacaan mahasiswa; terdapat korelasi yang lemah dan tidak signifikan antara pengetahuan *sociocultural* dan *vocabulary* tetapi tidak terdapat korelasi dengan pengetahuan *grammatical* dalam memahami teks-teks bacaan. Hasil-hasil ini diperkuat oleh hasil analisis data kualitatif yang menunjukkan pengaruh dan korelasi yang signifikan antara pengetahuan *vocabulary* dan *grammatical* terhadap pemahaman bacaan mahasiswa. Hasil-hasil tersebut mengkonfirmasikan penelitian ini menunjukkan kebaruan bahwa mahasiswa *EFL* tidak dapat mengaktifkan secara maksimal pengetahuan sosiokultural mereka dalam memahami teks bacaan bahasa Inggris karena pemahaman mereka sangat bergantung pada pengetahuan *grammatical* dan *vocabulary*. Hal ini mengimplikasikan bahwa skemata formal dan konten tidak berkorelasi secara signifikan dalam mempengaruhi pemahaman bacaan mahasiswa *EFL*. Oleh karena itu, pengetahuan sosiokultural mahasiswa *EFL* yang baik harus didukung oleh pengetahuan *grammatical* dan *vocabulary* yang baik pula dalam memahami teks bacaan bahasa Inggris.

Kata-kata Kunci : pengetahuan skemata, skemata formal, skemata konten, pengetahuan sosiokultural, pengetahuan gramatikal, pengetahuan kosakata

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CHAPTER I

INTRODUCTION

This part consists of background, the research questions, the objectives of the research, the significance of the research, the scope of the problems, and the operational definitions. The questions and the objectives of the research are formulated from the gaps that reviewed in the background. In the background, it is described about what, why, and how this research be able to be performed.

A. Background

Our view of language determines our view of learning a language. Learning a language could be concerned from three views according to Richard & Rodgers (1996). Firstly, from structural view, learning a language is to learn its vocabulary and structural rules, syntactic system (phrases & sentences), morphological/lexical system (morphemes & words), phonological system (phonemes). Secondly, functional view, learning a language is to learn its linguistic system as well as a means for doing things, learners learn a language in order to do things with it (use it), and to learn a language through using it. The last from interactional view, language is to learn its rules of language form (grammar & vocabulary) and its rules of language use in a context. It could be said that language learning concern on what views focused with.

Nowadays, the teaching and learning of English in Indonesia schools has become a perceived and realized need. The perception and realization of this need are based on the nation-wide assumption that good mastery of the language will have instrumental functions not only as the key to many doors of development and advancement in science and technologies, but also as a medium of building-up, strengthening and maintaining good relations with other countries in the world (Rasyid and Nur, 1997). Therefore, in Indonesia, English as a foreign language is taught as an obligatory subject from first year of Junior High School up to the freshman year of university.

In teaching and learning English as a foreign language, it is known language skills and language components. There are four language skills, i.e. listening, speaking, reading, and writing. These four language skills can be grouped into receptive skills (i.e. listening and reading), and productive skills (i.e. speaking and writing). Language components consist of pronunciation (including stress,rythm, and intonation), grammar or structure and vocabulary. These four language skills and three language components become the target of Teaching English as Foreign Language (TEFL).(Fachrurrazy,2014:7-8)

One of those language skills, reading skill, is to be a focus of the present research. Simanjuntak (1988:5) states that reading is the process of putting the reader in the contact and communication with ideas. Reading is an active process of interacting with print and monitoring

comprehension to establish meaning with the reader reacts and interprets from his own knowledge. Further Kustaryo (1988:11) says that reading is a complex process in which recognition and comprehension of written symbol are influenced by readers language background, mindsets, and reasoning abilities and they anticipate meaning based on what has been read and the instantaneous recognition of various writing symbol with existing knowledge and comprehension of information and ideas communicated.

Furthermore, Hedge (2003) as cited in Alyousef (2006:66) states that any reading component of an English language course may include a set of learning goals for: 1) the ability to read a wide range of texts in English. This is the long-range goal most teacher seek to develop through independent readers outside English as Foreign Language (EFL) / English as Second Language (ESL) classroom; 2) building a knowledge of language which will facilitate reading ability; 3) building schematic knowledge; 4) the ability to adapt the reading style according to reading purpose (i.e.skimming, scanning); 5) developing an awareness of the structure of written texts in English; 6) taking a critical stance to the contents of the texts. Based on presented statements, they seem to lead on same perceptions that the importance of building schematic knowledge through experience is as a prerequisite to reading, in this case the necessity of engaging reader's prior knowledge in reading process. This focus is the main concern of this study.

Most researches support the notion that prior knowledge or background knowledge (reader's schema) development can improve comprehension and learning from text and also can focus to characterize basic processes of reading comprehension. Anderson and Pearson (1984) state that we should focus on reader's schemata or knowledge already stored in memory, which have function in the process of interpreting new information and allowing it to enter and become a part of the knowledge store (Schema Theory). This interaction of new information with old knowledge is called 'comprehension'. The Schema Theory in reading comprehension is acquainted by Bartlett (1932), he states that the term 'schema' refers to 'an active organization of past reactions, or past experience. The term active was intended to emphasize what he saw as the constructive character of remembering, which he contrasted with a passive retrieval of 'fixed and lifeless' memories.

In Gestalt Psychology ('Law of Pragnanz'), Koffka 1935 as cited in Pearson (1984), stresses that mental organization is 'dynamic', which means that the tendency toward coherent organization is a spontaneous process that can happen without an external goad. In other views, Ausubel (1963) in Pearson (1984), states that in 'meaningful learning', already-known general ideas 'subsume' or 'anchor' the new particular propositions found in texts. This happens only when the existing ideas are stable, clear, discriminable from other ideas, and directly relevant to the to-be-understood propositions. These theories are able to be thoughtful

reviews for present research which concerning on readers' ability to comprehend from text by their schemata because schemata are patterns that represent the way how experience and knowledge are organized in the mind.

Therefore, this study is led to focus on two recognised types of schemata, content schemata and formal schemata. Brown (2001) cited in Ashrafzadeh, et.al. (2015: 526) defines content schemata as those schemata which contain information about people, social, the world, and the universe, or generally about life (culture, religion, history, and society). While formal schemata include knowledge about discourse structure, include language knowledge (syntax, phonology, grammar, and vocabulary). These schemata play urgent roles in second language reading comprehension. Moreover, Hudson (2007) points out that text comprehension depends very much on the way readers apply their schema comprehension.

Concerning these urgent roles of both schemata, thus the rationale of this research focuses to find out the correlation among three variables of both schemata, formal and content schemata, those influence the EFL readers' comprehension. They are grammatical, vocabulary, and socio-cultural knowledge of the foreign language readers and these schemata are the essential knowledge in readers' cognitive. Alderson's project result (1993) as cited in Hudson (2007: 172) reported that there is clearly some relationship between grammatical knowledge and reading ability.

Formal knowledge of syntactic features plays a role in text comprehension, it appears at the lowest levels of syntactic knowledge but it plays the largest role. For ESL/EFL readers, understanding these aspects may bring meaningful perspective about the reading text, because transferring the meaning from second language to first language is relatively easy by concerning the tense and the voice of the sentence. According to Choi and Zhang (2018), most studies in their review found that vocabulary knowledge played a more significant role in explaining second language (L2) reading comprehension. The readers are also infuenced by the wider social and cultural expectations of political, religious, ethnic, economic, and social institutions.

Furthermore, Grabe (2009: 130) also states that there are three major sets of differences between first language (L1) and second language (L2) : 1) linguistic and processing differences; 2) developmental and educational differences; and 3) sociocultural and institutional differences. According to him, for successful L2 readers, both vocabulary knowledge and syntactic knowledge are raised to a higher level of metalinguistic awareness as word and syntax difficulties directly confront the L2 reader on a regular basis. For these reasons, it is thought that the usage of those knowledge in EFL reading comprehension will bring huge effect in understanding the reading text. However, it is predicted that in reading process, there will be different portions used by the students, and they must correlate each other to build comprehension. Moreover, the

familiarity of the text also plays urgent role to facilitate the readers and the text, so by concerning the socioculture of the readers, language and the reality are related effectively in comprehending the reading text.

The present research was conducted at English Education Department, Faculty of Teachers Training & Education (*FKIP*) of Muhammadiyah University (*Unismuh*) of Makassar, so that the previous data about comprehension knowledge used by students in reading was acquired from Sixth Semester Students in Extensive Reading Class. The result of the previous data was to be a reference in doing the further research. This preliminary data was taken to be starting perception about the schemata knowledge that students have already had in their mind. The results showed 42 students from 63 students said that they use larger their vocabulary knowledge than their grammatical and sociocultural knowledge toward their novel reading comprehension. The result has been predicted according to the previous studies. Based on this preliminary data, this research is aimed to find out firstly the influence between the three schemata knowledge and the students' reading comprehension on the text and it is also aimed to know how the students' vocabulary knowledge correlate each other with their grammatical and sociocultural knowledge in building comprehension about familiar reading texts.This rationale was tried out on 9 students to know further the significant result.

The result of try-out tests showed that the grammatical knowledge and sociocutural knowledge influenced significantly to reading

comprehension, meanwhile the vocabulary knowledge did not influence significantly. The correlation analysis among the three schemata knowledge showed that grammatical and vocabulary knowledge relate each other to comprehend the reading text, meanwhile the correlation between grammatical and sociocutural knowledge and the correlation between vocabulary and sociocultural knowledge showed the negative correlation to influence the reading comprehension. This results were got from proficiency test partially of grammatical, vocabulary, and sociocutural knowledge tests by multiple-choice questions; and three reading comprehension texts about Islam by essay questions.

The try-out results above give meaningful persfective in conducting this research, some revisions in instruments have been performed. This research is expected to be a new persfective about background knowledge (reader's schemata) in EFL reading comprehension. By focusing on grammatical, vocabulary, and sociocultural knowledge, this research could provide thoughtful views about comprehending the reading text effectively. Based on this thought, this research is performed by the title: *The Correlation between Schemata Knowledge (Grammatical, Vocabulary, and Sociocultural Knowledge) and Reading Comprehension of English Foreign Language Students* at English Education Department, *FKIP* of Muhammadiyah University (*Unismuh*) of Makassar.

B.   The Research Questions

Based on background and the rationale of the research above, some problem statements of the research that was conducted at Sixth Semester Students of English Education Department, *FKIP* of *Unismuh* Makassar can be formulated in question forms as follow:

1. To what extent does the grammatical knowledge **influence** the students' reading comprehension?

2. To what extent does the vocabulary knowledge **influence** the students' reading comprehension?

3. To what extent does the sociocultural knowledge **influence** the students' reading comprehension?

4. Is there any correlation between students' grammatical knowledge and vocabulary knowledge in influencing their reading comprehension?

5. Is there any correlation between students' grammatical knowledge and socioculture knowledge in influencing their reading comprehension?

6. Is there any correlation between students' socioculture knowledge and vocabulary knowledge in influencing their reading comprehension?

C. The Objective of the Research

In accordance with the problem statements above, the objectives of this research are:

1. To find out the influence of the grammatical knowledge on the students' reading comprehension.

2. To find out the influence of the vocabulary knowledge on the students' reading comprehension.

3. To find out the influence of the sociocultural knowledge on the students' reading comprehension.

4. To find out the correlation between students' grammatical knowledge and vocabulary knowledge in influencing their reading comprehension.

5. To find out the correlation between students' grammatical knowledge and sociocultural knowledge in influencing their reading comprehension.

6. To find out the correlation between students' vocabulary knowledge and sociocultural knowledge in influencing their reading comprehension.

D. The Significance of the Research

The result of this research is expected to be useful theoretically and practically. This research is about the relationship of schemata knowledge, especially in terms of grammatical, vocabulary, and sociocultural knowledge and EFL reading comprehension process, how important to

concern about the prior or background knowledge that students already had in their cognitive memory. Therefore, theoretically the output of this research is able to give new persfective about teaching and learning reading comprehension for EFL students and this result of this research is able to be used as additional reference in reading studies. Practically, this research also is expected to be an important and necessary source of information for teachers, students, or translator about the role of schema knowledge, especially in terms of grammatical, vocabulary, and sociocultural knowledge in EFL reading comprehension process. It is also expected to give useful input and contribution to teaching and learning English as a foreign language, concern on teaching and learning English reading comprehension in Indonesia, especially in South Sulawesi.

E. The Scope of the Research

This research that was conducted at Sixth Semester Students of English Education Department, *FKIP* of *Unismuh* Makassar, is restricted to find out how far the grammatical, vocabulary, and sociocultural knowledge correlate each other in comprehending the reading texts in EFL students' cognitive (background/prior knowledge). Students focused to read the socioculturally-familiar texts as well they recalled more text-based according their vocabulary and grammatical knowledge. Sociocultural texts were taken from students' background knowledge. Due to the respondents of this research are *Islam, Bugis*, and living in Makassar City, the texts therefore are on their background/prior

knowledge, the topics are : *Prayer as a Pillar of Islam*, *Fascinating Things to See and Do when in Makassar*, and *Traditional Bugis Wedding*. The texts were enriched by linguistically comprehensible that involve far more knowledge of English grammar (parts of speech & tenses) and vocabularies (vocabulary size & word association knowledge including its form, meaning & use). Levels of comprehension that should be achieved are literal, inferential, and evaluation comprehension (Barret's Taxonomy). The result of the research could give thoughtful persfective about prior/schema knowledge used by EFL students in comprehending various texts and it will give significant contribution to English education forwardly.

F. The Operational Definitions

This section deals with operational definitions used in this research.The definitions that are provided reflect their usage within the present text. These terms that have a special or technical meaning in relation with the topic of this study have been included here.

1. Piaget's Schema Theory is the intelligence structure in human's cognitive that grows and changes through assimilation and accomodation. Every new experience will be related with schema or knowledge structures in human's mind.

2. Bartlett's Schema Theory is an active organization of past reactions, or past experience to emphasize what he saw as the constructive character of remembering. Especially in reading comprehension process, Bartlett's Schema Theory means the

abstract knowledge structure the reader brings to the text or summarizing process what is known about a variety of cases that differ in many particulars. To put it simply, the schema is the active knowledge construction engaging reader's prior knowledge/background knowledge in reading process.

3. Vygotsky Schema Theory stresses the fundamental role of social interaction in the development of cognition (1978), he believed strongly that community plays a central role in the process of making meaning. Individual development cannot be understood without reference to the social and cultural context within which it is embedded. Higher mental processes in the individual have their origin in social processes.

4. Reading is the process of looking at a series of written symbols and getting meaning from them. When we read, we use our eyes to receive written symbols and we use our mind to convert them into words, sentences and paragraphs that communicate something to us. In learning EFL, reading is a receptive skill, through it the reader receives information.

5. Comprehension is interaction of new information with old knowledge thus it makes harmony to understand and interpret spoken and written languages. So, **reading comprehension** is reading to understand what the writer intended to convey in writing by interacting the new information with old knowledge.

Anderson and Pearson (1984) state that we should focus on reader's schemata or knowledge already stored in memory, which have function in the process of interpreting new information and allowing it to enter and become a part of the knowledge store (Schema Theory).

6. Content Schemata is schemata which contain information about people, culture, the world, and the universe. In other words, content schemata involve general knowledge of life, including culture, history, and society that are familiar topics for readers.

7. Formal Schemata is schemata which contain knowledge about discourse structure. Formal schemata represent the reader's knowledge relative to the language, conventions, and rhetorical structures of different types of text.

8. Grammatical Knowledge is the knowledge involve questions about how to create textual input that is more comprehensible to the readers. It includes an examination of the reader's general grammar, syntactic, morphological, and lexical knowledge. Therefore, this knowledge as the system of rules is used to create sentences refers to the knowledge of parts of speech, tenses, phrases, clauses and syntactic structures used to create gramatically well-formed sentences in English.

9. Vocabulary Knowledge is the most identifiable subcomponent of reading ability, the readers know a certain amount of surface

meaning of words and then gain further understanding of text. Breadth knowledge about various words is the primary role to convey the meaning, it therefore is represented as vocabulary size which refers to the members of the words. Depth knowledge is about meaning distinction of word parts, word association, gramatical function and collocations. Vocabulary knowledge involve forms, meaning, and usage (Nation, 2001:27).

10. Sociocultural Knowledge is knowledge about social values and the norms of behaviour in a given society including the way these values and norms are realized thorough language. It is also vital importance in the interpretation of reading. Sociocultural knowledge can be both extralinguistic and linguistic. It is indispensable in modern society where people have widely varying communicative and cultural backgrounds.

CHAPTER II

REVIEW OF LITERATURE

There are four important parts in this chapter. First, it reviews researches that studied about background/schema knowledge especially about grammatical, vocabulary, and sociocultural knowledge in reading comprehension. Second, it presents some basic concepts/theories including Teaching English as Foreign Language (TEFL), English as Foreign Language (EFL) reading skill, the Schema Theory in the second/foreign language reading comprehension in terms the role of content knowledge and formal knowledge, and the concepts of grammatical, vocabulary, sociocultural knowledge in EFL reading comprehension. The third, all the concepts presented are figured in a framework and the last, the research questions are hypothesized.

A. Previous Related Research Findings

Many researchers have done related studies on the background/ schema knowledge in English as Second Language (ESL)/EFL reading comprehension, especially about grammatical, vocabulary, and sociocultural knowledge.These researches proved that schema knowledge (content and formal knowledge) plays important role in basic reading process by assimilating the old knowledge and the new knowledge. They also found that the readers could recall significantly more idea units from

their schema knowledge. Some researchers also separatedly studied about the relationship between grammatical knowledge and reading comprehension, the effect of vocabulary knowledge in reading comprehension and the important of sociocultural context in English reading comprehension. Reviews of their findings are presented in the following section.

1. **The Schema Theory (Prior/Schema Knowledge) in ESL/EFL Reading Studies**

The following previous researches show the relevance with the present study in term of prior/schema knowledge on EFL reading comprehension. However, each research has different point of view in studying their researches. Liu (2015); Al Jahwari & Al Humaidi (2015); and Stevens (1980) proved that schema knowledge or prior knowledge plays very important role in comprehending the reading text. Liu (2015) found that schema knowledge serving as the readers' cognitive context and the supportive knowledge to assimilate new information, greatly facilitated the process of meaning acquisition; meanwhile Al Jahwari and Al Humaidi (2015) found that prior knowledge has a strong agreement of the role in text comprehension. In other side, Stevens (1980) found that one major step in improving reading is to improve prior knowledge of the topics being read, and the results of this study inform about the influence of background knowledge on the eficacy of reading in different ability levels. These studies clearly strengthened the importance of prior/background knowledge in readers' cognitive schema.

Meanwhile, Carrell (1983) studied the schema knowledge by viewing from the content (cultural) schema and formal schema. She studied about the theoretical distinction between content and formal schemata and the general nature of the relationship and interaction of these types in naturally occurring texts, and the effects measured by the cross-cultural research are related to more general situations of the absence or presence of appropriate background knowledge. She implies that future research and the applications of that research to EFL/ESL reading pedagogy must be sensitive to the two issues raised in her paper. First, it is needed to unconfound formal and content schemata and to study them jointly and interactively; and, second, it is needed to be cautious about studying and interpreting the culture-specificity of both formal and content schemata.

In line with Carrell, Al Asmari & Javid (2018) found that comprehension of a target text is not limited to the readers' linguistic knowledge but activation of the content schemata also plays an important role in facilitating the readers to understand the written text. The findings have also reported that English language teachers consider low English language proficiency, poor reading skills of Saudi ELF leaners and the availability of appropriate teaching aids as the major obstacles in activating the content schemata. Conversely, Sulistyo & Suharmanto (2007) in their study attempted to empirically examine factors that differentiate EFL readers with different EFL reading proficiency levels.

Four selected factors believed to play a role in reading comprehension are considered, namely: linguistic knowledge, reading strategies, text structure knowledge, content and world background knowledge. They found that there is a significant difference between the three groups of EFL readers. Other results are reading strategies and world background knowledge were obviously discriminating for different types of EFL readers: poor, average, and good. This means that good EFL readers differed markedly from poor EFL readers in terms of reading strategies and world background knowledge.

In other view, Shin, et.al. (2018) revealed that L2 readers with higher working memory capacity benefitted more from the provision of background knowledge, which led to achieving better reading comprehension than readers with low working memory. This finding highlights the role of working memory in L2 reading in terms of using existing resources to one's advantage particularly because no significant difference on L2 measure scores was found between the high– and low– working memory groups. Pedagogical implications are discussed regarding the importance of not only providing background knowledge when it is not already present but also following up with explicit instructional support to help all readers utilize what is available to them.

Some other researchers as Pornour (2014), Soltani & Malaee (2015), Chang (2006), Horiba & Fukaya (2015), Fita, et,al. (2018) and Hardianti (2017) also studied about the effects familiarity of the topic or the

text in reading comprehension, and they seemed to agree that content knowledge or familiarity content about the topic and the text play significant roles. Pornour (2014) found that the students agreed the teacher directed topic familiarization and written background knowledge activities were equally effective in second language reading. Soltani & Malaee (2015) strengthened that there is a relationship between the participants' scores of TOEFL and IELTS in terms of academic topic familiarity effects on learners' reading proficiency based on their field of study. Meanwhile Chang (2006) found that topic familiarity have a facilitative effect on the mental representations of the reading passages whereas no effects due to linguistic difficulty was found. Horiba & Fukaya (2015) even concluded that content recall was enhanced in the first language (L1)-L1 condition whereas incidental vocabulary learning benefited from the second language (L2)-L2 condition. Language proficiency affected overall content recall while topic-familiarity facilitated processing of specific content information.

In other views, Hardianti (2017) reported that text familiarity and unfamiliarity were determined by their prevalence, their frequency of exposure in written and electronic media and degree of reading experience by the individual. Ashrafzadeh,et.al. (2015) also studied about the familiarity of the reading text. They investigated the using of familiarity and unfamiliarity topic to assess the role of background knowledge in the reading comprehension. Through their study, they considered that the

effect of relevant background knowledge (schema) refers to content schemata (familiarity with content knowledge) on reading comprehension in a group of Iranian medical students. The study also recommended the three phases of reading (pre-reading, reading, and post-reading) and ways to build and activate background knowledge (schema) to achieve better reading comprehension.

In contrast, Mahmoudi & Mahmoudi (2017) found that topic familiarity cannot override language proficiency in reading comprehension; that is, low-proficiency students could not catch up with high-proficiency students even in familiar topics. This means that at higher levels of proficiency background knowledge cannot override linguistic proficiency. The effect of background knowledge is more prominent at earlier stages of learning a second language and not as much significant at later stages. Meanwhile, Fita, et,al. (2018) found in their study that there is no interaction effect between Working Memory Capacity (WMC) as the main independent variable and content familiarity (CF) as the moderator variable; this implies that the students with higher WMC comprehend texts better than those with lower WMC, regardless of whether they are familiar or not with the texts.

In different views, the studies of Luiz (1985) and McVee,et.al. (2005) presented about revisiting the Schema Theory. Luiz (1985) in his study has already given us a broader perspective about Schema Theory in reading comprehension, especially about the representation a reader

stores in memory after reading a text, it is a function of information contained in texts and of content and formal schemata already available in the reader's mind. Meanwhile, McVee,et.al. (2005) revisited the Schema Theory in persfective sociocultural theory which has the potential to elaborate and further enrich these fundamental insights concerning the genesis and development of schemas. This recognition of the social is the important role of discourse processes in the development of mind and literacy that can help researchers and teachers to understand how knowledge is organized and has helped shed light on the individual cognitive routines that students employ during the reading process.

These revisiting of the Schema Theory researches is also presented to be a thoughtful reference in including the sociocultural views in the present research. According to my reviews on the presented previous researches above, they only studied the content schema based on the cultural view, the social aspects are not included to be viewed. Whereas, McVee,et.al stressed the crucial role of recognition of the social schema in elaborating discourse processes in mind and literacy. It cannot be ignored and it is expected to be involved in the readers' content schemata. Therefore, this research is presented to find out the correlation among these schemata knowledge entirely. Grammatical and vocabulary are viewed from the formal schemata, sociocutural knowledge is viewed from the content schemata.

2. The Studies about Grammatical, Vocabulary, and Sociocultural Knowledge in ESL/EFL Reading Comprehension

Some studies specifically investigated about grammatical and vocabulary knowledge from formal schemata views, and sociocutural knowedge from content schemata knowedge. First reviews present some studies about formal schemata: grammatical and vocabulary knowledge. The researchers such as: Gungor & Yayli (2016), Perfetti and Stafura (2014); Ma & Lin (2015); Alderson (1993);Yu Chen (2011); Jamalipour & Farahani (2015); Choi and Zhang (2018); Rajnbar (2012), and Mohammad & Bayat (2016) studied about word knowledge and vocabulary knowledge of English that have strong relation with English reading comprehension, and also proved that there is strong relationship between grammatical knowledge and reading ability. These studies are useful as main references for the present research because their findings give important input about to what extent grammatical and vocabulary knowledge are related to reading comprehension.

For further reviews, these researches are presented particularly. Gungor & Yayli (2016) found that the text-based vocabulary knowledge moderately correlated with reading comprehension, and there was a relatively linear relationship between them. It was also concluded that the 98% vocabulary coverage is needed for foreign language learners to comprehend academic texts, and this coverage, in fact, refers to approximately the most frequent 8000 word-families based on the related

studies. While Alderson (1993) in Hudson (2007) compared results from a grammar test with those from reading test covering such areas as 'science and technology', 'life science', 'arts and social sciences, and 'general non-academic reading'. Thus, there is clearly relationship between grammatical knowledge (formal schemata) and reading ability. According to him, formal knowledge of syntactic features plays a role in text comprehension, although it appears at the lowest levels of syntactic knowledge. It means that if the second language readersfind undefined threshold of grammar ability, it influences their text comprehension.

By performing other way, Perfetti and Stafura (2014) found that within Reading System Framework, the readers recure comprehension process and integrate the currently read word into a mental structure that represents the current understanding of the text. These word-to-text integration processes allow readers to continuously tune and update their current understanding. The lexical nature of this process distinguishes it from other integrating processes, such as bridging inferences, which also allow updating and keep the text coherent but at some cost to processing effort. Meanwhile, Ma & Lin (2015) investigated the overall and relative contribution of four subcomponents of vocabulary knowledge to reading comprehension, they were vocabulary size, word association knowledge, collocation knowledge, and morphological knowledge**.**The results showed that the participants' scores on the four subcomponents of vocabulary knowledge were all correlated significantly with their reading

comprehension scores. Among the four subcomponents, vocabulary size had the highest correlation with reading comprehension.

Still in studying the relation between reading comprehension and vocabulary schema, Yu Chen (2011) found that vocabulary breadth of knowledge was positively and significantly correlated to literal reading comprehension. As additional, the qualitative findings showed that the majority of participants agreed breadth of vocabulary knowledge played a greater role in their literal reading comprehension process. The study determined that vocabulary breadth of knowledge was the most powerful predictor of literal reading comprehension. Meanwhile, in an experimental research, Jamalipour & Farahani (2015) concluded that there were significant differences between the experimental and control conditions. The positive influence of the vocabulary on reading comprehension can be enhanced by the instruction of related vocabulary strategies so that learners can better employ their vocabulary knowledge to the text. Therefore, the impact of vocabulary knowledge instruction on reading comprehension showed the enhancement of participants in the reading comprehension after the treatment.

In the other study that related the vocabulary and grammatical knowledge and second language reading comprehension, Choi and Zhang (2018) performed systematic reviews. Their study is aimed to synthesize the findings in the literature on the relative contribution of two types of linguistic knowledge (i. e., vocabulary and grammatical knowledge) to L2

reading comprehension; and to discuss the possible factors that might have led to the complexity and incongruity of the research findings. Nineteen studies were identified for this review through a systematic process of selection, and were analyzed in terms of the relationship of vocabulary and grammatical knowledge with L2 reading comprehension and their relative significance. The result of this review showed that both types of linguistic knowledge are important underpinning of L2 reading comprehension, but there was no clear evidence supporting which type of linguistic knowledge is more contributive than the other; and the inconclusive findings might be attributed to the variations in the design of the studies. Meanwhile, Mohammad & Bayat (2016) implied that the EFL learners who had large vocabulary size will have a deeper knowledge of the words, so that the learners can better employ their comprehension to the reading text.

Researcher who also investigated the relationship between grammatical knowledge and the ability to guess word meaning in spoken and written texts is Rajnbar (2012). The findings indicated that grammar knowledge was a key factor in deciphering the meanings of unknown words. It was also shown that the more comprehensive the grammar knowledge was, the higher the learners' proficiency level in guessing words would be. Therefore, instruction of grammatical structures in L2 contexts is recommended. He also concluded that guessing the meaning of words and structures is a skill which needs some practice and

knowledge. The ability of word meaning guessing is influenced by some factors including context clues and co-text clues. It needs both clues at disposal to get the unknown words across. One fundamental factor is the knowledge of grammar and structure of the sentences. This kind of knowledge whether acquired implicitly or explicitly, is essential for all aspects of language learning especially for guessing the components of a larger block.

The coming reviews present sociocultural knowledge studies that performed by some researchers: Ghafar & Dehqan (2013); Sabatin (2013); Lin (2004); Saleem & Azam (2015). They conducted their studies by experimental researches on students. Meanwhile, Yang (2013) did learning instruction development by incorporating the Sociocultural Theory into a unit plan of an EFL reading courses, and Al Hassan (1992) conducted correlation research. The main point of these different studies showed that there are strong correlations and significant effects of sociocultural knowledge toward English Foreign Language reading comprehension.

For the first review, Ghafar & Dehqan (2013) gave true experiment to 126 EFL learners from two Iranian universities (Mazandaran & IAU).The focus of their study was to investigate the possible effects of sociocultural-based teaching techniques on EFL learners reading comprehension. A NELSON language proficiency test, a researcher-made reading comprehension test and a reading strategy questionnaire were used as

data collection instruments. The results showed that the sociocultural teaching techniques leads to better reading comprehension and reading strategy use for EFL learners. Also shown that proficiency factor played a determining role in reading comprehension development of the two groups of this study.

The next, Sabatin (2013) investigated the effect of cultural background knowledge on learning English. It also aims to investigate if there are significant differences between subjects' performance in reading comprehension according to sex and General Ability in English (GAE). The population of this study consisted 600 of all first-year students majoring in English at Hebron University in the first semester. The sample of the study consisted of 60 subjects, males and females divided into four groups, two experimental and two controlled. The study revealed the following results: 1. There are statistically significant differences in per-formance in reading comprehension between subjects who have cultural background knowledge and those who do not have any knowledge. 2. There are no statistically significant differences in performance in reading comprehension between male and female subjects who have cultural background knowledge and those who do not have any knowledge. 3. Subjects' GAE revealed that there are significant differences in performance in reading comprehension between subjects who have cultural background knowledge and those who do not have any knowledge.

In other experiment research, Lin (2004) investigated the effects of culturally specific prior knowledge on Taiwanese EFL senior high school students' English reading comprehension, utilizing a Retelling Technique. The analysis confirms the positive influence of the participants' culturally specific prior knowledge on their reading comprehension. The results of the quantitative analysis indicate that the retelling of the Chinese topic passages was significantly different from those with non-Chinese topics. Most Taiwanese students produced more thought units for the passages with Chinese topics than for those with non-Chinese topics. Saleem & Azam (2015) also studied to examine the effectiveness of sociocultural approach in reading comprehension skills. The findings of the study clearly exhibited that sociocultural approach is quite effective for teaching reading comprehension skills. The results of this research suggest the use of more social and supportive methods in the perspective of language learning and teaching.

In other view, Yang (2013) incorporated the sociocultural theory into a unit plan of an EFL (English as a foreign language) reading course. The researcher first introduced the definition and relevant studies on the sociocultural theory and L2 (second language) reading, and summarized some interactive studies between the two subjects. Then, the researcher designed a unit plan, which covered several themes of the sociocultural theory, e.g., collaborative scaffolding, self-regulation, and MLE (Mediated Learning Experience). Five successive lesson plans within the unit were

then elaborated, with various tasks embedded in each one. All the tasks were designed according to the selected themes, namely, matching game, final word game, and jigsaw activity served as the examples of collaborative scaffolding; tasks like scanning and skimming information in the timeline involved self-regulation; and activities of read-with-songs and read-by-role-play embodied the MLE. After the five lesson plans, the researcher made the reflection and explained the reasons for the design of the tasks in each lesson plan. Implication for the future studies suggested more experiments be implemented to prove the effectiveness of sociocultural theory in the EFL reading classroom.

The last review from previous related studies, Al Hassan (1992) in his thesis (correlation research) sets out to investigate the effects of culture and schemata on reading comprehension. It is concerned about cultural attitudes partly as those attitudes express themselves through reading. The social and economic environment of Saudi Arabia is discussed in this study as the primary reference point of social behaviour. An effort is made to show the impact of religion on the overall behaviour of students. This is reflected by the Saudi Arabian philosophy of education, and the rationale for the inclusion of EFL in their curriculum. The questionnaire was designed to determine attitudes towards Western culture, and the extent of their impact on reading comprehension.The findings of this study revealed that there was a significant difference in the scores obtained by those students having positive attitudes and those

having negative attitudes. The correlation coefficient of such students shows that the degree of relationship is highly positive, and that students with positive attitudes tend to perform significantly better than those with negative attitudes. The findings of this research also support the view that students from different cultures bring different systems of background knowledge to the comprehension process.

All previous studies clearly indicate that the readers' schemata/prior knowledge about content schemata (sociocultural schemata) and formal schemata (grammatical & vocabulary schemata) and its relationship with the readers' reading comprehension are researched separatedly. Yet, so far there is a study focusing on both grammatical and vocabulary knowledge but excludely sociocultural knowledge, such as Choi and Zhang (2018). Therefore, the current research is presented to investigate the relationship among these knowledge (grammatical, vocabulary, and sociocultural) with reading comprehension of EFL readers. The assumptions drawn from the previous studies indicate that each of these three essentials of knowledge of language must be employed in reading comprehension. They are looked for their correlation with reading comprehension and their correlation each others in building reading comprehension. Those should inform the distinction of this research from others previous researches.

B. Some Basic Pertinent Concepts

1. Basic Concepts of Teaching English as a Foreign Language

The international use of English may outlast its scientific dominance in the world nowadays. Therefore, the government of Indonesia has realized the important of English and has decided that English is a compulsory subject from first year of Junior High School up to the freshman year of university. English has been considered to be the first foreign language in Indonesia. It has an important function to guard the development of the state and nation, it also helps to build relations with other nations, and it leads to run foreign policy including as a language used for wider communication in international forum.

In teaching and learning English as foreign language, professional competence of the teacher includes abilities to teach oral and written English, comprehend background knowledge of the teaching contents, understand concepts of related subjects, and implement English knowledge in real life. It is also known the terms in EFL, language skills and language components. There are four language skills, i.e. listening, speaking, reading, and writing. These four language skills can be grouped into receptive skills (i.e. listening and reading), and productive skills (i.e. speaking and writing). Language components consist of pronunciation (including stress, rhythm, and intonation), grammar or structure and vocabulary. These four language skills and three language components become the target of Teaching English as Foreign Language (TEFL)

(Fachrurrazy,2014:7-8). Realizing the importance of English, it is equally important to prepare the teachers who will teach it, because the teaching learning process involves three factors, namely: teacher, learner, & method/material.

Meanwhile, learning a language could be concerned from three views according to Richard & Rodgers (1986). Firstly, from structural view, learning a language is to learn its vocabulary and structural rules, syntactic system (phrases & sentences), morphological/lexical system (morphemes & words), phonological system (phonemes). Secondly, functional view, learning a language is to learn its linguistic system as well as a means for doing things, learners learn a language in order to do things with it (use it), and to learn a language through using it. The last from interactional view, language is to learn its rules of language form (grammar & vocabulary) and its rules of language use in a context.

In Indonesia, the teaching of English as a foreign language seems to be on the crossroads due to two different curricula implementation. Curriculum changes are mandatory; however, the changes should not be counter-productive to the attainment of expected learning competency. The curriculum designs have swung from the 1980, 1984, 1996 Curriculum, the 2006 Curriculum (the School Based Curriculum'/KTSP) , and the currently, the 2013 Curriculum. The newly advocated curriculum is known as '*K-2013*' or the 2013 Curriculum. *K-2013* is so designed that reflects a scientific approach to learning. Theoretically, *K-2013* is

supposedly meant to minimize the School Based Curriculum' (KTSP) drawbacks by (1) refining it with relevant competency, (2) organizing it with essential learning materials, (3) implementing students' active learning, (4) providing contextual learning paradigm, (5) designing textbooks which contain content and process of learning, (6) administering authentic assessment to learning process and outcome. K-2013 is designed in anticipation to modern learning in the twientieth century. The learning paradigm has shifted from -- students have knowledge because they are taught by a teacher-- to –students have curiosity to get knowledge by themselves--. It reflects that the students are actively engaged in learning from different sources exceeding the teachers and the educational units or institutions (Komang, 2015:1-3). This curriculum therefore is most underpinned by Constructivism and Cognitivism Learning Theory.

Ertmer & Newby (2011) state that learning theories are an organized set of principles explaining how individuals acquire, retain, and recall knowledge. By studying and knowing the different learning theories, we can better understand how learning occurs. The principles of theories can be used as guidelines to help select instructional tools, techniques and strategies that promote learning. Meanwhile, the common psychology views on language learning concern on what the learning theories oriented with. The firstly, process-oriented theories are concerned with how the mind processes new information, such as habit formation, induction, making inference, hypothesis testing and generalization (Behaviourism).

Secondly, condition-oriented theories emphasize the nature of the human and physical context in which language learning takes place, such as the number of students, what kind of input learners receive, and the learning atmosphere (Cognitivism, Constructivism, and Social Constructivism). The following discussion focuses to discuss about condition-oriented theories, in terms Constructivism and Cognitivism Learning Theories that underpin this present study.

a. Constructivism Learning Theory

Constructivism is one of learning theory in psychology which explains how people might acquire knowledge and learn. They therefore has direct application to education. The theory suggests that humans construct knowledge and meaning from their cognitive and experiences. Constructivism is not a specific pedagogy. Ormrod (2008: 39) says Piaget's theory of constructivist learning has had wide ranging impact on learning theories and teaching methods in education and is an underlying theme of many education reform movements. Since all sensory input is organized by the person receiving the stimuli, it cannot always be directly transferred from the teacher to the student. This means that a teacher cannot "pour" information into a student's brain and always expect them to process it and apply it correctly later. For example, think of a time when you were taught something in a lecture-type class. Then contrast that against a time when you had to prepare to teach someone else something. You will probably agree that you learned the material better

when you were preparing to teach the material. This is because you constructed the knowledge for yourself, so that your internally cognitive proceed by itself to build the comprehension.

What is meant by constructivism? Construct means 'build', in sense with learning, the term refers to the idea that learners build or construct knowledge for themselves---each learner individually (and socially) constructs meaning---as he or she learns. Constructivism (Cahyo,2013) is basically a theory -- based on observation and scientific study -- about how people learn. It says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile it with our previous ideas and experience, maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, we are active creators of our own knowledge. To do this, we must ask questions, explore, and assess what we know. In fact, constructivism taps into and triggers the student's innate curiosity about the world and how things work. Students do not reinvent the wheel but, rather, attempt to understand how it turns, how it functions. They become engaged by applying their existing knowledge and real-world experience, learning to hypothesize, testing their theories, and ultimately drawing conclusions from their findings. These processes involved integrally are meant constructive.

The basic principle underlying Piaget's theory (Cahyo,2013,36-37) in Contructivism is the principle of equilibration: all cognitive development (including both intellectual and affective development) progresses towards increasingly complex and stable levels of organization. Equilibration takes place through a process of adaption, that is, assimilation of new information to existing cognitive structures and the accommodation of that information through the formation of new cognitive structures. For example, learners who already have the cognitive structures necessary to solve percentage problems in mathematics will have some of the structures necessary to solve time-rate-distance problems, but they will need to modify their existing structures to accommodate the newly acquired information to solve the new type of problem. Thus, learners adapt and develop by assimilating and accommodating new information into existing cognitive structures. (Ormrod,2008) Therefore, constructive processes during learning according to Jean Piaget are schemata, assimilation, accomodation, and equilibrium (Cahyo, 2013: 38 – 41).

These constructive processes play urgent roles in learning process. Therefore, Hein (1991) gives principles of learning of constructivist thinking that we must keep in mind when we consider our role as educators, such as: 1. learning is an active process in which the learner uses sensory input and constructs meaning out of it; 2. people learn to learn as they learn; 3. the crucial action of constructing meaning is mental; 4. learning involves language; 5. learning is a social activity; 6. learning is

contextual; 7. one needs knowledge to learn; 8. it takes time to learn; 9. motivation is a key component in learning. Constructivism as a paradigm or worldview posits that learning is an active, constructive process. The learner is an information constructor. People actively construct or create their own subjective representations of objective reality. New information is linked to prior knowledge, thus mental representations are subjective. In the constructivist classroom, the focus tends to shift from the teacher to the students. The classroom is no longer a place where the teacher ('expert') pours knowledge into passive students, who wait like empty vessels to be filled. In the constructivist model, the students are urged to be actively involved in their own process of learning.

Further, constructivists argue that behavior is situationally determined, just as the learning of new vocabulary words is enhanced by exposure and subsequent interaction with those words in context (as opposed to learning their meanings from a dictionary), likewise it is essential that content knowledge be embedded in the situation in which it is used. The situations actually co-produce knowledge (along with cognition) through activity. Every action is viewed as "an interpretation of the *current* situation based on an entire history of *previous* interactions", just as shades of meanings of given words are constantly changing a learner's "current" understanding of a word, so concepts continually evolve with each new use. For this reason, it is critical that learning occur in

realistic settings and that the selected learning tasks be relevant to the students' lived experiences (Jonassen, 1991a; Brown, et.al., 1989; Clancey, 1986; in Ertmer & Newby, 2013:55-56). The familiarity of learning tasks are able to influence much the learners' new understanding on their knowledge building.

b. Cognitivism Learning Theory

The genesis of cognitivism as a learning theory can be traced back to the early twentieth century. The shift from behaviorism to cognitivism stemmed from the behaviorist tradition's failure to explain why and how individuals make sense of and process information (i.e., how the mental processes work). In other words, it was the limitations of behaviorism that spawned the cognitive movement. Dissatisfied with behaviorism's heavy emphasis on observable behavior, many disillusioned psychologists challenged the basic assumptions of behaviorism. They claimed that prior knowledge and mental processes not only play a bigger role than stimuli in orienting behavior or response but also intervene between a stimulus and response. It is argued that people are neither machines nor animals that respond to environmental stimuli in the same way (Deubel 2003; Winn and Snyder 1996; Matlin 1994 in Yilmaz, 2011: 205). The works of Edward Chase Tolman, Jean Piaget, Lev Vygotsky, Jerome Bruner, and German Gestalt psychologists were instrumental in engendering the dramatic shift from behaviorism to cognitive theories (Yilmaz, 2011: 206). The Cognitivism is the answer of the limitations of the Behavourism have.

Cognitive theorists believe that learning involves the integration of events into an active storage system comprised of organizational structures termed schemata. Schemata serve a number of functions in human cognition. In addition to storing information in long-term memory, they formulate frameworks into which new information must fit in order to be understood. Furthermore, schemata regulate attention, organize searches of the environment, and "fill in the gaps" during information processing. Thus, the mind uses schemata to selectively organize and process all the information individuals receive from the world (Baron & Byrne, 1987).

Piaget then explored the genesis of cognitive structures and the process that underlies learning and knowledge construction. Trained as a biologist, Piaget later shifted his interest to how human beings make sense of their environment and experience. The key notions that Piaget employed to elucidate his cognitive theory basically derive from biological concepts. According to Piaget, the process of intellectual and cognitive development resembles a biological act, which requires adaptation to environmental demands. The concept of schema occupies a central place and has an explanatory power in Piaget's theory. Schema refers to a hypothetical mental structure for organizing and representing generic events and abstract concepts stored in the mind in terms of their common patterns. They can be considered "as a series of interrelated index cards that represent different environmental patterns in one's mental structure"

(Yilmaz, 2011:206). Briefly, Piaget's Schema Theory is the intelligence structure in human's cognitive that grows and changes through assimilation and accomodation; Every new experience will be related with schema or knowledge structures in human's mind (Cahyo,2013:39). Schemata constantly get restructured as one encounters new patterns in his or her learning experiences. Three processes characterize the schemata acquisition and the changes in existing schemata: (1) *accretion,* which refers to remembering new information on the basis of existing schema without altering the schema; (2) *tuning,* which happens when new information that does not fit the existing schema causes schema to get modified in order to be more compatible with experience; and (3) *reconstructing,* which is characterized by the formation of totally new schema on the basis of previous ones that cannot accommodate new experience (Rumelhart and Norman,1978 in Yilmaz, 2011:206).

Cognitive theories also emphasize making knowledge meaningful and helping learners organize and relate new information to existing knowledge in memory. According to cognitive theories, transfer is a function of how information is stored in memory (Schunk,1991 in Ertmer & Newby, 2013:52). When a learner understands how to apply knowledge in different contexts, then transfer has occurred. Understanding is seen as being composed of a knowledge base in the form of rules, concepts, and discriminations (Duffy & Jonassen, 1991 in Ertmer & Newby, 2013:52). Prior knowledge is used to establish boundary constraints for identifying

the similarities and differences of novel information. Not only must the knowledge itself be stored in memory but the uses of that knowledge. Specific instructional or real-world events will trigger particular responses, but the learner must believe that the knowledge is useful in a given situation before he or she will activate it.

As a conclusion of the discussion about Constructivism and Cognitivism Learning Theories, constructivist perspectives are especially dealing with the goal of instruction that is to map the structure of the world onto the learner's mind, meanwhile cognitivist persfectives are primarily objectivistic, that is, the world is real, external to the learner. A number of contemporary cognitive theorists have begun to question this basic objectivistic assumption andare starting to adopt a more constructivist approach to learning and understanding: knowledge is a function of how the individual creates meaning from his or her own experiences, for constructivist, transfer is a function of how information is stored in memory. Tasks requiring an increased level of processing (e.g., classifications, rule or procedural executions) are primarily associated with strategies having a stronger cognitive emphasis (e.g., schematic organization, analogical reasoning, algorithmic problem solving). Tasks demanding high levels of processing (e.g., heuristic problem solving, personal selection and monitoring of cognitive strategies) are frequently best learned with strategies advanced by the constructivist perspective (e.g., situated learning, cognitive apprenticeships, social negotiation). The last, cognitive

strategies are useful in teaching problem-solving tactics where defined facts and rules are applied in unfamiliar situations (knowing how); and constructivist strategies are especially suited to dealing with ill-defined problems through reflection-in-action.

2. The Concepts of Reading Skill

a. Definition of Reading

Reading has long been considered a crucial component in the learning of any subject. The ability to read relevant texts is the most useful skill for students in obtaining the necessary information about their subject areas. They can read basic forms, read advertisements, read newspapers, and use their basic reading skills in future work and daily lives, when needed.

> We were never born to read. Human beings invented reading only a few thousand years ago. And with this invention, we rearranged the very organization of our brain, which in turn expanded the ways we were able to think, which altered the intellectual evolution of our species. (Wolf, 2007:3 in Grabe, 2009:4)

Simanjuntak (1988:5) states that reading is the process of putting the reader in the contact and communication with ideas. Reading is an active process of interacting with print and monitoring comprehension to establish meaning with the reader reacts and interprets print from his own knowledge. Further Kustaryo (1988:11) says that reading are a complex process in which recognition and comprehension of written symbol are influenced by readers language background, mindsets, and reasoning abilities and they anticipate meaning based on what has been read and

the instantaneous recognition of various writing symbol with existing knowledge and comprehension of information and ideas communicated. Breznitz (2006) also states that reading is an interactive process in two ways. Reading combines many cognitive processes working together at the same time. This pattern of parallel interaction is essential to fluent reading. Reading is also an interactive between the reader and the writer. The text provides information that the author wants the reader to understand in certain ways. The reader also brings a wide range of background knowledge to reading, and she or he actively constructs the meaning of the text by comprehending what the writer intends and by interpreting it in terms of the background knowledge activated by the reader.

Reading is a complex process involving several different skills, and it has an important place in acquiring both general and specific kinds of English. According to Bell (1998), the process of reading comprehension involves understanding the vocabulary, seeing relationships among the words and concepts, organizing ideas, recognizing the author's purpose, evaluating the context, and making judgements. This complexity, together with the development of new teaching approaches which recognize the important role played by comprehension, has encouraged researchers to carry out studies on different areas of reading.

In almost all cases, the readers have learned to read in their first languages (L1), but they have also learned to be second language (L2,

subsuming both second and foreign language) readers, often under very different circumstances. In more formal setting, they are expected to read in academic context or work place environments as part of of learning or engaging in their jobs. Many of them also engage in reading that may be quite demanding in educational, professional, and occupational settings. In these latter settings, a great deal of learning occurs; part of that learning requires that they read and interpret international texts in line with the tasks that they engage in and the goals that they set. (Grabe,2009: 4-5) Therefore, concerning the students' competence in their first language is included crucial aspect to be engaged in reading process.

There are also many contexts in which people develop reading abilities. There is a real difference between adults who want to gain access to significant academic training and those who need basic L2 reading skills. The combination of students' daily encounters with text and students' needs to read in different way in educational and professional settings requires reading differently depending on the context and their goals (and motivations). When they read for different purposes, they engage in many types of reading, particularly in academics settings. Six major purposes are listed below according to Grabe (2009:8):

1. Reading to search for information (scanning and skimming)

2. Reading for quick understanding (skimming)

3. Reading to learn

4. Reading to integrate information

5. Reading to evaluate, critique, and use information

6. Reading for general comprehension (in many cases, reading for interest or reading to entertain)

Each purpose for reading engages cognitive processes in different combinations. It would seem that the many purposes for reading could be treated as different skills. One could even argue that there really is no single notion of reading, but rather four or five distinct skills that the readers tend to call reading.

As conclusion, one of the most striking implications for L2 reading instruction is that reading comprehension requires component skills of many types. The lower-order processing skills (word recognition, syntactic parsing, and meaning encoding as propositions) were crucial for reading as the basic linguistic and processing resources supporting comprehension. It is evident that these comprehension processes require a reasonable command of linguistic resources and authomatic processing. At the same time, the comprehension processes that build the text model and the situation model also require a number of higher-order abilities. Readers need to know how to recognize and process discourse signals of various types to make links across semantic units, they use this signaling information to build comprehension networks. Readers need to know how to recognize various markers of text information overlap and to engage inferencing that maintains a coherent interpretation of the text. Readers also need to draw on background knowledge as appropriate, monitor

comprehension, engage in strategic processing with more difficult text and with more complex goal for reading and set appropriate goals for reading comprehension.

b.   Reading Comprehension

Woolley (2011:33) states that reading comprehension is a very complex cognitive activity. Comprehenders are not viewed as merely passive recipients of information but as active constructors of meaning. Skilled comprehenders use a wide repertoire of language skills to gain meaning from text by constructing a text-based model while at the same time they draw upon and use their own background knowledge to construct a situation model of the understandings related to the text passage. To be effective, readers need to be actively engaged in the reading process by using their metacognitive skills to monitor and regulate their own meaning making processes.

Comprehension is interaction of new information with old knowledge; the ability to understand and interpret spoken and written languages. So, reading comprehension is reading to understand what the writer intended to convey in writing by relating the new information with old knowledge. As Anderson and Pearson (1984) state that we should focus on reader's schemata or knowledge already stored in memory, which have function in the process of interpreting new information and allowing it to enter and become a part of the knowledge store (Schema Theory). Skilled readers are dynamic readers who predict what is going to

happen in the text. It is asserted that when readers predict before reading, they activate past memories and experiences and test themselves as to whether they have sufficient knowledge about the present topic in order to comprehend the text (Glazer,1994 in Wooley,2011:19). Thus, reading comprehension is a complex interactive set of operations requiring complex cognitive functioning at a number of levels simultaneously.

There are two classes of mental models in reading comprehension according to Kintsch (1998): a text-based model, a mental representation of the text propositions, and a situation model consisting of what the text is perceived to be about. While reading, skilled readers normally develop a text-based model, which is a mental representation of the actual text discourse. The text-based model incorporates propositions extracted from the reading of successive sentences that are sometimes supplemented by inferences that are necessary to make the text more coherent. At a local level, comprehension of written text involves the processing of the symbolic representations of parts of words, phrases, and sentences. At the same time, at a more global level, a reader must link ideas across sentences and form a mental model that incorporates complex themes and story plots.

In contrast, still according to Kintsch (1998), situation models include elaborative inferences that integrate prior knowledge with text-based information. Unlike the text-based models, situation models do not normally retain the verbatim text information but support a more flexible

knowledge structure that can enable the integration of both visual and verbal representations. Thus, the construction of a situation model is a dynamic constructive process that is determined by the interaction of the reader, the text structures, and the semantic content. It is a cohesive representation of the meaning of the text ideas. In constructing a situation model, the reader is required to search for coherence at the local and global levels and to infer meanings that are often implied by drawing from their existing background knowledge. While doing this, the reader actively constructs the situation model by using information within the text and also information from stored prior knowledge. Thus, the main difference between text-based and the situation model is assumed to be one of inference making, the text-based model is inferentially light while the situation model is inferentially dense.

In reading as a process, particular interpretation of the text becomes a prominent view. It means that the text is a potential media to produce meaning through the readers' linguistic and schematic knowledge according to Wallace (1992) in Madani (2016:23). Reading entails several sub-processes and skills that differ according to types and purposes. In fact, there is a set of processes that take place when the reader makes interactions with the text. According to Grabe and Stoller (2002), reading involves lower-level processes and higher-level processes; each of them entails specific elements and procedures.Lower-level processes involve: lexical acces, syntactic parsing, semantic proposition formation, and

working memory activation; higher-level processes involve: text model of comprehension, situation model of reader's interpretation, background knowledge use and inferring, and executive control process. Grabe & Stoller (2002:20) state that the lower level processes involve the more automatic linguistic processes which include grammar and vocabulary knowledge. The higher level processes generally represent comprehension processes that make much more use of readers' background knowledge and inferring skills which include sociocultural knowledge.

According to Birch (2015), a complex mental ability like reading can be compared to a computational flowchart that organizes and presents graphically the information known or hypothesized about it and how that information is related within the model. It is useful to think of reading first as a kind of information processing system and second as a kind of expert decision making system, because those models capture some essential characteristics of the reading process. Furher, readers utilize an array of strategies to assist them with the acquisition, storage, and retrieval of information. Therefore, the reading processing system involves cognitive psycholinguistic that is viewed from the storage in short-term and long-term memories.

The interactive information processing system includes different parts and procedures that illustrate the different skills of reading and their interaction for successful reading. There are two basic parts to the

processing system, a knowledge storage component and a dynamic processing component that uses strategies to cope with the text. The reading system includes storage for cultural and linguistic knowledge in long-term memory. The knowledge is organized into memory structures like images, networks, schemas, and frames. The knowledge base is not sufficient for reading by itself, because it cannot interact directly with the text without processing mechanisms. The processing component consists of a variety of strategies that the reader must intentionally learn or acquire by practice. The strategies allow the reader to take the text as a source of information and, drawing on the knowledge base as another source, make sense of what is on the printed page. The processing strategies can be consciously or unconsciously applied; that is, they can operate automatically beneath the level of awareness or they can kick in selectively because of conscious attention to something perceived. (Birch, 2015: 2-3)

In this review, there are three processing system those are presented as following, namely: the bottom-up, the top-down, and the interactive processing systems.

- **The Bottom-up Processing Strategy**

Bottom-up processing corresponds the cognitive and information-processing psychological concerns, it basically assumes that a reader construct meaning from letters, words, phrases, clauses, and sentences by processing the text into

phonemic units that represent lexical meaning and then builds meaning in a linear manner. (Hudson, 2007: 33) The bottom of the model contains precise bits of knowledge about language and writing as well as mental processing strategies that turn squiggles on the page into meaningful symbols. In the reading system, the processing strategies work together in parallel, that is, at the same time, with access to the knowledge base to permit readers to construct ideas and meaning from the printed text. When people are reading, they need the information flowing upward from the bottom to the top (Birch, 2015).

This process according Gough (1972) in Hudson (2007) is assumed to require the processing of all graphemic information on the page or processing view of reconstructing an existing message. Through this process, the readers register the characters in milliseconds and decodes them into phonemic units. Words recognition takes place prior to comprehension. Once the lexical entries are associated and produce some comprehension, through the psychologically divine intervention of a mechanism. In essence, if reading is viewed as having the two levels of decoding text and comprehending text, the as decoding becomes more automatic, attention can be placed on comprehending the text. The visual word is then associated with the reader's phonological memory and

then with semantic memory. This process becomes more automatic over multiple experiences.

As presented above, the bottom-up reading process focuses fairly directly on issues of rapid processing of text and word identification. Emphasis is placed on the readers' ability to recognize words in isolation by mapping the input directly on to some independent representational form in the mental lexicon. In general, this mapping is seen to be independent of context. The bottom-up processing basically views that reading comprehension is equal to language comprehension, plus decoding, plus some minor other contributing variable.

- **Top-down Processing Strategy**

This processor uses cultural and world knowledge and generalized cognitive processing strategies at the "top" to construct a meaning for texts (sentences, paragraphs, or stories). Using these high-level processing strategies, the reader makes predictions about what the text is going to be like, inferences about the motivations of the characters, decisions about how certain events are related in the reading, and the like. Consequently, Smith (1994) states that the reader makes continually changing hypotheses about the incoming information. The reader applies background knowledge, both formal and content, to the text in order to create meaning that is personally and contextually sensible.

Strong forms of this processing assume that the reader is not text-bound, but rather samples from the text in order to confirm predictions about the text message. The reader does not necessarily read each word in the text as is assumed in the bottom-up processing.

Goodman (1976) in Hudson (2007:34 & 37) who popularized this processing approach, labels reading as a *psycholinguistic guessing game*. For him, the key element was that reading was a psycholinguistic process that was an interaction between thought and language. Readers use their knowledge of syntax and semantics to reduce their dependence on the print and phonic of the text. He futher speciefies four processes in reading : predicting, sampling, confirming, and correcting. The reader makes guesses about the meaning of the text and samples the print to confirm or disconfirm the guess. In this way, reading is an active process in which the reader brings to bear not only knowledge of the language, but also internal concepts of how language is processed, past experiential background, and general conceptual background. In this processing strategy, efficient reading is not the result of close perception and identification of all textual features. Finally, it results skill in choosing the minimum cues necessary to produce correct guesses.

- **Interactive Processing Strategy**

  Reading is seen as bidirectional in nature, involving the application of higher order mental processes and background knowledge as well as features of the text itself. Indeed, reading is interactive in three ways according to Birch (2015): first, the different processing strategies, both top and bottom, along with the knowledge base, interact with each other to accomplish the reading; second, readers' minds interact with the written text so that they can understand the message; and third, readers interact indirectly with the writer of the text across time an space because it is the writer who is communicating information to readers, but readers must grasp the information from the writer.

  This interactive processing strategy allow explanation for many variables in the reading. It is also to tend to have biases which lead either toward the bottom-up processing or the top-down processing. The interactive frameworks focus on the process of reading where the key is on the interaction of componential cognitive processes in fluent reading, or whether the interactive focus is on the product of the reader's interaction with the information in the text and the reader's background knowledge during comprehension (Grabe,1991).

  Further, the explanatory focus of the interactive processing may assume that the most important features of concern are :

1) the automatic application of lower-level skills independent of comprehension; 2) the interaction of background knowledge and text; and 3) the role of social, contextual, and political variables affecting the reader's process of meaning making (Hudson, 2007). Birch (2015) states that in the reading system, the processing strategies work together in parallel, that is, at the same time, with access to the knowledge base to permit readers to construct ideas and meaning from the printed text. When people are reading, they need both the information flowing upward from the bottom to the top and the information flowing downward from the top to the bottom in order to understand the meaning successfully. For example, perception and recognition of letters leads to recognition of words, from which people construct meanings. In the other direction, contextual information, inferences, and world knowledge influence the processing strategies at lower levels. World knowledge can affect people's expectations about words and meaning, which can allow them to recognize some words faster than others or understand some meanings faster than others.

In building coherent mental representations readers must also process meaning at literal, inferential, and problem solving levels of thinking. Therefore, some models of comprehension levels are presented to be referential focus of this research. These levels are based from lower-level skills to higher-levels skills as reading ability is acquired.

The levels of comprehension skill presented as follow, are taken from Clymer (1979) in Hudson (2007):

1. Literal Comprehension

    a. Recognition: Recognition of Details: Recognition of Main Ideas: Recognition of Sequence; Recognition of Comparison; Recognition of Cause & Effect Relationships; Recognition of Characters Traits.

    b. Recall: Recall of Details; Recall of Main Ideas; Recall of Sequence; Recall of Comparison; Recall of Cause & Effect Relationships; Recall of Character Traits.

2. Reorganization: Classifying; Outlining; Summarizing; Synthesizing

3. Inferential Comprehension: Inferring Supporting Details; Inferring Main Ideas; Inferring Sequence; Inferring Comparison; Inferring Cause & Effect Relationships; Inferring Character Traits; Predicting Outcomes; Interpreting Figurative Language.

4. Evaluation: Judgements of Reality or Fantasy; Judgements of Fact or Opinion; Judgements of Adequacy and Validity; Judgements of Appropriateness; Judgements of Worth, Desirability and Acceptability.

5. Appreciation: Emotional Response to the Content; Identification with Characters or Incidents; Reactions to the Author's Use of Language; Imagery.

Clymer presented these comprehension levels by developing Barret's Taxonomy. The taxonomy is divided into five ordered skill levels : 1) literal comprehension; 2) reorganization; 3) inferential comprehension;

4) evaluation; and 5) appreciation. According to Clymer, these categories are ordered to move from easy to difficult in terms of the demands of each category. Furthermore, this taxonomy was clearly influenced by Bloom's general processing taxonomy. It can be seen that this attempted to define levels of cognitive and affective processing that represent different levels. Actually, in real reading process, background knowledge will have a significant effect upon the difficulty of any given category, or in the other words, context in general will modify the proposed difficulty or ease (Hudson,2007:85).

Davis (1968) in Hudson (2007: 87) also postulated eight reading comprehension skills, such as : Recalling word meanings; drawing inferences about the meaning of a word from context; finding answers to questions explicitly or merely in paraphrase; weaving together ideas from context; drawing inferences from the content; recognizing a writer's purpose, attitude, tone, and mood; identifying the writer's technique; following the structure of passage. Davis then specified four unique skills based on subsequent factor analysis, they were knowledge of word meanings, drawing inferences from the content, finding answers to question answered explicitly or in paraphrase in the passage and weaving together ideas in the content, and drawing inferences about the meaning of a word from context.

Reading comprehension is a very complex cognitive activity. Skilled comprehenders use a wide repertoire of language skills to gain meaning

from text by constructing a text-based model while at the same time they draw upon and use their own background knowledge to construct a situation model of the understandings related to the text passage. To be effective, readers need to be actively engaged in the reading process by using their metacognitive skills to monitor and regulate their own meaning making processes. Successful readers are more efficient at gaining unfamiliar word meanings from texts because they have a greater existing vocabulary, more experience using context clues, and greater background knowledge.

c. Second and Foreign Language Reading

It is important to know that many people around the world read in more than one language. Large populations of people have learned to read in second or third languages for a variety of reasons, including interactions within and across heterogeneous multilingual countries, advanced education opportunities, and the spread of languages of wider communication. Therefore, explanations about second or foreign language reading inevitably have to address the question: 'Is it a reading problem or language problem?' Alderson (1984) in Hudson (2007:9) indicates that it is necessary to address this because it is central to sorting out the causes and origins of second and foreign language reading problems. He notes that many teachers believe that the reason their students cannot read English well is because they cannot read well in their first language, thus

assuming that reading is a transferable process from the first language to the second language.

On the other hand, reading problems of second or foreign language learners are generally the result of imperfect knowledge of language, and the point to native language interference in the reading process. Yorio (1971) in Hudson (2007:60) writes that the reader's knowledge of the foreign language is not like that of the native speaker; the guessing or predicting ability necessary to pick up the correct cues is hindered by the imperfect knowledge of the language. Meanwhile, bilinguals generally read well in both languages, indicating some transferability of the initial reading ability. However, some bilinguals do not read well, due to differing strategies being appropriate for different languages, such as English and *Farsi*, or English and German. To the extent that structures, morphology, and orthography are different in two languages, such as the use of case markers and the capitalization of nouns in German, components not generally available in English, then the strategies will necessarily be different and transfer might be counter-productive.

Among the second language readers it can be seen the effects of varying stages in control of English on subjects' reading. But it can be also seen that subject need not be totally proficient in both productive and receptive English to learn to read English and to get considerable meaning from their reading. The language limitations interact with cultural and experential factors and all may affect reading (Goodman & Goodman

(1978) in Hudson,2007). The second language proficiency plays a greater role than does first language reading ability. Yet there are also results that indicate this last finding may depend upon the reader's level of proficiency and upon what particular reading task is involved. The role of the reading task and text type have yet to be thoroughly researched in second language studies (Hudson,2007:73).

Generally, speaking, the linguistic differences, or linguistic distance, between any given L1 and L2 will be a factor to consider in L2 reading development. When two languages are more distinct linguistically, there is a greater likelihood that there will be greater linguistic processing interference. Moreover, the exploration of reading development in different languages can help to identify the extent to which there are universals of reading development and the extent to which the interaction between a given L1 and L2 will create unique issues for learning and instruction. This issue of different patterns of L1 reading development provides additional perspectives on some of the difficulties that L2 readers might face as they learn to read an L2. (Grabe,2009:109)

These universals aspects of cognitive and linguistic processing are outlined by Grabe (2009:122-123) by emphasizing general cognitive skills and language resources for all readers, such as: carry out phonological processing while reading; use syntactic information to determine text meaning and text comprehension; set goals, engage in reading strategies; apply some level of metacognitive awareness to text comprehension;

engage a capacity-limited working-memory system; draw on a long-term memory (background knowledge) to interpret text meaning; carry out very rapid pattern recognition and automatic processing skills. It is possible to create a very large inventory of specific skills resources that are likely to be universal aspects of reading abilities and are capable of fully transferring. However, understanding how universals are deployed differentially in a given language is what leads to observable differences across languages and sources of variable language transfer. Word recognition abilities in the L1 do not always transfer to the L2, particularly when the writing system is different.

Finally, according to Grabe (2009), many transfer effects involve interference because of the differences between two languages at any linguistic level. At the level of syntax-processing difference between the L1 and the L2, L1 processing preferences will cause interference with L2 syntactic processing. Rather, L1 processes will always be present at some levels because L2 reading involves reading with a dual-language system. In effect, transfer, when it occurs, is a permanent effect. The interaction of two languages as part of L2 reading processes has been termed 'multi-competency' by Cook (1997) in Grabe (2009).

As implication for teaching, it is suggested, first, teachers should have some ideas about the linguistic and literacy backgrounds of their students; second, the issue of differences in learning to read in different L1's suggests that teachers should check beginning-level students'

abilities to read a set a high-frequency sight words in English with reasonable ease and check to make sure that they can read a basic list of English pseude words without being seriously impeded or unable to complete the task; last, it is important to raise the students metalinguistic awareness for L1 word-recognition skills and reading development, students awareness of how sounds change during afixation, how word parts have consistent form-sound relations, how morphologically derived words include sound and stress changes, and how morphologically complex words build from more basic words are all important instructional and learning goals in a reading curriculum. Students who have some awareness of the roles of phonology, orthography, and morphology in word recognition will be more efficient at lower-level language processing as well as at vocabulary learning.

d. Teaching EFL Reading Comprehension

Grabe (1991: 377) describes Goodman's perception of reading which is seen as an *active process of comprehending where students need to be taught strategies to read more efficiently (e. g., guess from context, define expectations, make inferences about the text, skim ahead to fill in the context, etc.)*. Since reading is a complex process, Grabe also argues that "many researchers attempt to understand and explain the fluent reading process by analyzing the process into a set of component skills" (p.379) in reading; consequently researchers proposed at least six general component skills and knowledge areas: 1) Automatic recognition

skills; 2) Vocabulary and structural knowledge; 3) Formal discourse structure knowledge; 4) Content/world background knowledge; 5) Synthesis and evaluation skills/strategies; 6) Metacognitive knowledge and skills monitoring.

Readers can improve reading comprehension by expanding their vocabularies and gaining greater control over complex syntactic structures. Contemporary insights believe that grammar facilitates learning and its presentations to learners should be through "contextualization of linguistic forms in situations of natural use" (Hedge, 2003:159). Hedge also states that any reading component of an English language course may include a set of learning goals for: 1) the ability to read a wide range of texts in English. This is the long-range goal most teachers seek to develop through independent readers outside EFL/ESL classroom; 2) building a knowledge of language which will facilitate reading ability; 3) building schematic knowledge; 4) the ability to adapt the reading style according to reading purpose (i.e. skimming, scanning); 5) developing an awareness of the structure of written texts in English; and 6) taking a critical stance to the contents of the texts.

It is the teacher's responsibilities to motivate reading by selecting the appropriate materials and especially for those at the early stages of learning. Guthrie (1996) in Alyousef (2006) performed a meta-analysis of studies that manipulated several aspects of intrinsic motivation support for reading. These findings suggest that "meaningful conceptual content in

reading instruction increases motivation for reading and text comprehension." The second, motivation-supporting practice showed that students who were provided choice of text performed higher on reading tasks than those with no choice. The third, practice was using interesting texts. This conforms to Hedge's proposal that in selecting task texts, teachers should seek interesting texts and consider variety of topics. Readers' interest can be revealed by setting 'a reading interest questionnaire' where students check the fields that suit their interest, i.e. short stories, thrillers, science fiction, etc. Since "each learner will have different strengths to build on and different weaknesses to overcome" (Hedge, 2003:205).

Contemporary reading tasks, unlike the traditional materials, involve three-phase procedures: pre-, while-, and post- reading stages. Zhang (1993:5 in Alyousef, 2006:69) briefs that "comprehension is facilitated by explicitly introducing schemata through pre-reading activities". Thus the pre-reading stage helps in activating the relevant schema. Most teachers tend to neglect the pre-reading procedure claiming that there is not enough time. In fact, pre-reading activities motivate students before the actual reading takes place. For example, teachers can ask students questions that arouse their interest while previewing the text. Drucker (2003) in Alyousef (2006) suggests the following procedure teachers can take before reading a text: *firstly*, relate the passage students are going to read to something that is familiar to them. *Next,* provide a brief discussion

question that will engage the students and, after that, provide an overview of the section they are about to read. Name the selection, introduce the characters, and describe the plot (up to, but not including, the climax). *Last*, direct the students to read the story and look for particular information. The aim of while-reading stage (or interactive process) is to develop students' ability in tackling texts by developing their linguistic and schematic knowledge. Hedge (2003) argues that although some oppose the interactive activities carried during the while-reading phase, there are only few research studies that show the "effects of intervention and their outcomes".

The last phase, Haller (2000) in Alyousef (2006) modeled a number of school-based post-reading activities which enhance learning comprehension through the use of matching exercises, cloze exercises, cut-up sentences, and comprehension questions. For the cloze activity, the teacher puts blanks in the story in place of some of the words, usually every fifth word but not the first or the last words in the text. A cut-up sentence activity uses sentences from the given text and helps learners to gain confidence by manipulating the text in various ways. The use of lines in matching can be sometimes confusing for beginners. Haller proposes the use of "paper strips" at the beginning where a student is given the strips and asked to match for example a name with its corresponding activity. Later students can work in pairs as they understand the concept of matching and, finally, the teacher can introduce matching through lines.

For extra practice students can copy their matching word slips onto another sheet of paper.

There are two types of reading in second language or foreign language according to Hedge (2003), they are extensive reading and intensive reading.

1). Extensive Reading

There have been conflicting definitions of the term "extensive reading." (Hedge, 2003:202) Some use it to refer to describe "skimming and scanning activities," others associate it to quantity of material. The pedagogical value attributed to extensive reading is based on the assumption that exposing learners to large quantities of meaningful and interesting L2 material will, in the long run, produce a beneficial effect on the learners' command of the L2. Hedge believes that extensive reading varies according to students' motivation and school resources. A well-motivated and trained teacher will be able to choose suitable handouts or activities books for the students.

Hedge (2003:218) also states that since extensive reading helps in developing reading ability, it should be built into an EFL/ESL programmes provided the selected texts are "authentic" - i.e. "not written for language learners and published in the original language" (- and "graded". Teachers with EFL/ESL learners at low levels can either use "pedagogic" or "adapted" texts. Moreover, extensive reading enables learners to achieve their independency by reading either in

class or at home, through Sustained Silent Reading (SSR). Carrell and Eisterhold (1983:567) argue that SSR activity can be effective in helping learners become self-directed agents seeking meaning provided an SSR program is "based on student-selected texts so that the students will be interested in what they are reading. Students select their own reading texts with respect to content, level of difficulty, and length."

Hedge (2003:204), however, argues that one is not sure whether Krashen's comprehensible input hypothesis "facilitates intake" in SL learners since "it is difficult to know exactly how any learner will actually use the input available". However, "it can bee seen as an input-enabling activity." No one can deny the fact that extensive reading helps greatly in "exposing" SL learners to English and especially when the class time is limited. Hedge briefs the advantages of extensive use in the following lines. Learners can build their language competence, progress in their reading ability, become more independent in their studies, acquire cultural knowledge, and develop confidence and motivation to carry on learning. *(ibid:*204-205)

2). Intensive Reading

In intensive (or creative) reading, students usually read a page to explore the meaning and to be acquainted with writing mechanisms. Hedge (2003:202) argues that it is "only through more extensive reading that learners can gain substantial practice in operating these

strategies more independently on a range of materials." These strategies can be either text-related or learner-related: the former includes an awareness of text organization, while the latter includes strategies like linguistic, schematic, and metacognitive strategies. In intensive reading activities learners are in the main exposed to relatively short texts which are used either to exemplify specific aspects of the lexical, syntactic or discoursal system of the L2, or to provide the basis for targeted reading strategy practice; the goal of extensive reading, on the other hand, is to 'flood' learners with large quantities of L2 input with few or possibly no specific tasks to perform on this material.

Hedge (2003) also states that this type of reading has indeed beneficial to language learners as it helps them to understand vocabulary by deducing the meaning of words in context. It moreover, helps with retention of information for long periods of time and knowledge resulting from intensive reading persists in students' long term memory. Intensive reading involves approaching the text under the guidance of a teacher or a task which forces the student to focus on the text. The aim is to arrive at understanding, not only of what the text means, but of how the meaning is produced. The 'how' is as important as the 'what', for the intensive lesson is intended primarily to train strategies which the student can go on to use with other text.

Students are likely to develop strategies in order to facilitate

learning in reading. It is obvious that reading strategies can vary from reader to reader; however, they can be modified for specific reading tasks. What makes the difference between good and poor readers is the knowledge of strategies. Good readers know how to approach a text and make a plan of reading in the light of strategy knwledge. In addition, they know how and when to use the strategies in order to get out of the problems. On the other hand, readers who lack the knowledge of strategies or the usage of them are more likely to be floundered when they encounter a text they are to read. Therefore, it is imperative that readers be taught how to use strategies, which help them to monitor their comprehension and they are also suggested that thinking about one's thinking is at the core of strategic behavior. Teaching reading comprehension, therefore, requires teaching readers good strategies and how to apply them in any reading area.

3. The Basic Concepts of Schema Theory in Reading Comprehension

It has long been recognized that reading is an interactive process, in which readers draw on existing background knowledge to construct the meaning of texts. Attempts to formalize the notion of background knowledge have centered on the concept of schema, a term derived from the Greeks' shape and introduced by Von Ehrenfels (1890) in the context of Gestalt Psychology (Ashrafzadeh, 2015). The widespread use of the term in psychology and education is attributed to Bartlett (1932), who in a study of the recall of Native American folktales observed that many recalls

were inaccurate, and included the introduction of extraneous information. The recalls also included retrieved inferences which went beyond the information given in the original text. From his observations on recall, Bartlett (1932) concluded that there is an unconscious mental structure or schema which models general knowledge about the world. He defines a schema as the prior knowledge stored in the human mind for reading a text. Background knowledge also consists of different kinds of information, such as information about terminology, vocabulary, and information which enables members of a group to make inferences.

Further, Bartlett (1932) states that explicit information in a text is insufficient for the specification of the meaning of that text. Rather, the complete meaning is constructed by combining information from the various sources that comprise the context of the text, e.g., prior knowledge, linguistic, situational, and task contexts. It is this act of combining information to produce a text's understood meaning that is referred to as construction. Of the various impinging contextual factors, a central role belongs to the preexisting knowledge the comprehender brings to bear to inform the understanding of a given text. Along with the realization of the importance of prior knowledge in the acquisition of new knowledge has come a spate of theoretical work concerning the content and organization of knowledge, as well as the processes by which prior knowledge exerts its influence. This work has been carried out under various rubrics including schema. (Spiro,1980)

The following is a simple version of this Schema Theory according to Anderson & Pearson (1984): 1) The schema to which the text is being assimilated, already-processed text information, and an analysis of task demands provide a gauge for judging the importance of upcoming text elements; 2) As it is encountered, each text element is processed to some minimum level and then graded for importance; 3) Extra attention is devoted to elements that surpass a criterion of importance; 4) Because of the extra attention they receive, important text elements are learned better; because they are learned better, these text elements are also remembered better. The reader's schemata has function as the process of interpreting new information and allowing it to enter and become a part of the knowledge store. Whether we are aware of it or not, this interaction of new information with old knowledge is called 'comprehension'. If the reader has comprehended a text, it means that he/she has found a 'mental home' for the information in the text, even more he/she has modified an existing mental home in order to accomodate that new information.

In his book *Critique of Pure Reason*, Immanuel Kant (1963) in Liu (2015) claims that "new information, new concepts, new ideas can have meaning for an individual only when they can be related to something the individual already knows". Pearson & Johnson (1978) in Liu (2015) define comprehension as "building bridges between the new and the known" That means meaning does not have a separate, independent existence from the reader, and prior knowledge of the reader or schema counts a lot in

the extraction of meaning from the graphic words in the print. Ausubel et al. (1978:168) in Liu (2015), a schema can refer to "significant substantive and organizational properties of the learners' total knowledge in a given subject-matter field" and can also refer to "the substantive and organizational properties of just the immediately or proximately relevant concepts and propositions within cognitive structure". Beaugrande & Dressler (1981: 94) in Liu (2015) state that a schema might be representations not only of entities in a certain situation, but also the roles those entities play in the situation. It is the different roles of those entities that connect the entities in the schema into an organized structure. These concepts and relations etc. are not stored randomly in the brain, but are combined into "networks composed of knowledge spaces centered on main topics".

What would be the implications of such a reconceptualization of the nature of knowledge organization for reading instruction? Further, Spiro (1980:21) suggests an emphasis on knowledge assembly, in addition to that already placed on knowledge availability. What new problems might be suggested by a theory of decomposed schemata that are assembled in ongoing fashion? Some students may store too much generic knowledge in rigidly precompiled form, reducing the ability to adapt flexibly to the subtleties and nuances of difference from one superficially similar situation to the next. If a given text does not fit the tightly prescribed formulas inscribed in memory, it will be less than optimally understood. For other

children perhaps there is inappropriate generic cognitive economy; i.e., knowledge is decomposed in such a manner that recomposition is inhibited. Finally, some students may lack the processing apparatus to handle the increased demands placed on compiling knowledge.

Implications of schema theory for instruction according to Alexander 2003; in Yilmaz (2011:206-207) can be summarized as follows:

- Provide unifying themes for content, because information that lacks a theme can be difficult to comprehend, or, worse, the learner may "accrete" the information to the wrong schema.

- Provide a relevant context for learning in order to activate an existing schema.

- Develop and apply techniques for students to use to impose structure on what they learn and thus make it more memorable, such as the use of information mapping or advance organizer.

- Represent what the experts know in order to facilitate the learning process and use case-based reasoning for knowledge representation.

- Make instructional material meaningful by identifying the learner's mental model and providing conceptual models invented by teachers, designers, scientists, or engineers to help make some target system understandable.

- Choose texts with "standard" arrangement so that they conform to student expectations.

- Encourage students to read titles and headings.

- Point out the structure of particular kinds of texts; for example, what are the common features of published research articles?

- Ask questions to determine what students' current schemata might be.

- Pay attention to student answers and remarks that may give clues about how they are organizing information; that is, what schemata are they using?

Work in the schema-theoretic tradition has focused on the structure of knowledge that must be analyzed, rather than on the texture that must be felt. Accordingly, there is very little to be offered as support for these views. However, a body of data concerned with meaning at the level of the individual word is suggestive. Clearly, word meanings have an analytic aspect, which is what lexicographers and semanticists study. However, words have also been shown to have psychological meaning of a far different kind from that studied analytically. In other words, reader's schema can be explored to deeply analyze the word meanings in any text.

In presenting their schema-theoretic view of reading, Anderson and Pearson (1984) claim that an adequate account of the structure of schemata will include : 1) information about the relationships among the components; 2) a major role for inference; 3) acceptance that during language comprehension, people probably rely on knowledge of particular cases as well as abstract and general schemata. They note that each

schema will be normative rather than fully elaborated. That is, the schemata will be general in nature, not specific to every previous experience. They also note that while most discussions of schema theory emphasize the use of schemata in the process of assimilating new information, they are concerned with how a schema may be modified in light of new information. These constructs are explored on the basis of schema-related factors proposed by Anderson et al. (1977) who claim that age, subculture, experience, education, interest and belief system are all important factors underlying the ability of readers to understand text.

Based on the schema-theoretic of Anderson and Pearson and some reading literatures, Hudson (2007:141) notes two different types of schema or background knwledge, that the reader brings to bear on a text. The first class of prior knowledge has to do with **content schema** relevant to the content area and cultural knowledge. The second type of schema is **formal schema**. This represents the background knowledge of the reader has regarding how syntax is used to structure text, cohesive relations, and the rhetorical organization of different text types. The following discussions will be presented further about these two types of schema in reading comprehension.

a. Content/Cultural Schemata

Anderson and Pearson (1984) state that an area of major important in the reading process relates to how background knowledge/schemata and cultural understanding affect text comprehension. Freire and Macedo

(1987) in Hudson (2007) states that "reading does not consist merely of decoding the written word of language; rather it is preceded by and interwinned with knowledge of the world. Language and reality are dynamically interconnected. The understanding attained by critical reading of a text implies perceiving the relationship between text and content". In this content schema, background knowledge about facts known and assumption held about world and life play important role. Prior knowledge may have a facilitating effect because a reader who already has an elaborate schema can more easily fit in coming textual information into this schema.

Background knowledge can also be related to values and judgements that are made about an event by a reader, values that are due to social experience and cultural mores. Both of these aspects of background knowledge will affect the extent to which a second language reader constructs a meaning that is in any way consistent with the meaning a first language reader is likely to construct, as well as whether two first language or two second language readers construct the same meaning. However, the reader's background knowledge does not simply represent the contents of a repository filled with random relevant and irrelevant ideas. The background knowledge also reflects expectations of importance, relevance, and structure. (Hudson,2007:142-143)

Brown (2001) in Pearson (1984) defines content schemata as those schemata which contain information about people, culture, the world, and

the universe, while formal schemata include knowledge about discourse structure. In other words, content schemata involve general knowledge of life, including culture, history, and society that are familiar topics for readers. Therefore, he emphasizes the role of topic familiarity as a significant factor in L2 comprehension. Meanwhile, Afflerbach's (1976) in Pearson (1984) claims that topic familiarity obtained by reading a text enhances the rebuilding of the main idea. He also considers schemata plays a priority role in applying world knowledge to reading comprehension. An important contribution was his emphasis on topic familiarity as the facilitator of "language recognition", "inferential reasoning", and the recall of concepts. Refer to Bartlett's (1932) study, which adduced evidence of the impact of cultural schema or topic familiarity on the comprehension of texts, as a seminal work in L1 studies.

Carrel (1987) notes that the schema must be activated in the reading process. A failure to activate the appropriate schema may be due to the reader not recognizing the context. Such a failure to recognize the context may have several causes : the reader may be strongly expecting some other topic or point of view; the reader may be distracted; or there may not be sufficient textual cues to signal the content; these conditions especially effect the second language readers. The second language readers remained text-bound and did not use the context to activate their schema as an aid to comprehension. (Hudson,2007)

There is a great deal of evidence that indicates a relationship

between content schema and reading comprehension. Familiarity with the topic of a text is essential for readers in either first languge or second language to understand, or even approximate, a writer's message. Therefore, considerations of background knowledge can not be ignored when attempting to understand second language reading comprehension. Further, this is more than an issue of how much prior knowledge the reader has, it also concerns the quality of knowledge, of how that knowledge is organized and the depth and flexibility of the knowledge by the reader.

b. Formal Schemata

This section discusses about how formal schemata may interact with a reader's comprehension process. There are internal structures to a text that may aid the reader's success. Formal schemata represent the reader's knowledge relative to the language, conventions, and rhetorical structures of different types of text. Each of these aspects of formal schemata plays a role in how a reader establishes the coherence of a particular text. As content schemata, formal shematic knowledge need not be conscious knowledge. Further, Hudson (2007: 168-199) gives the roles of syntax, cohesion, and text structure of formal schemata in the second language reading process as following discussions.

- **Syntax and Language Structure**

The role that syntactic knowledge plays in second language reading comprehension would on the face of it appear to be pervasive.

It appears self-evident that a second language reader's command of grammar is essential to comprehension of the text meaning. This syntax recognition is the threshold of linguistic ability of the reader to be able to process the text. The level of control will need to be both in terms of recognizing the salient features and being able to process the syntactic system with some efficiency. For example, look at the following sentence (Langacker, 1972:157) : *pama- iu tyulphin wanta-ri-lna*

pama   = man

iu   = ergative case marking

tyulpin   = tree

wanta   = fall

ri   = causative affix

lna   = future marker

Little comprehension of this sentence will happen unless the learner understands the syntactic and morphological features of Tyapukay, a language of Australia. The learner will not understand that the sentence means, 'the man will fall the tree'. The fact that future aspect is indicated by an affix rather than a particle and that the causative marker is also an affix are essential pieces of formal schemata that are necessary for comprehension of the sentence.

Barry and Lazarte (1995) found that the effect of a second language reader's familiarity with content could be cancelled out by

text containing complex embedded clauses in Spanish. Additionally, Hatch,et.al. (1974) indicated that although first language readers attend to content words more than to syntactic function words while reading, ESL readers focus on both function and content words because the syntax is unfamiliar to them. Thus, there is clearly some relationship between grammatical knowledge and reading ability. Formal knowledge of syntactic features plays a role in text comprehension, but it again appears that it is at the lowest levels of syntactic knowledge that it plays the largest role. Therefore, once the second language reader has reached some as yet undefined threshold of grammar ability, its impact is reduced in terms of text comprehension.

- **Cohesion**

Cohesive relations are defined as those linguistic features which link one sentence to another without reference to a higher level of analysis (Irwin,1986). Knowledge of how cohesion is realized within a text is essential to interpreting the relationships between textual propositions. As Grabe and Kaplan (1996) note, cohesion is the means available in the surface forms of the text to signal relationships that exist between sentences or clausal units in the text. Cohesion is achieved through the overt linguistic marking devices (present, absent, implied, or elided) that provide connectedness between sentences, clauses, etc. Cohesion is different from coherence. Coherence

involves the connections between the discourse propositions and the context in which they are embedded, while cohesion involves the connections within the textual discourse itself (Campbell,1995).

Connectives such as *although, thus, because, however, consequently*, and *therefore* provide the reader with the relationships between the ideas represented in sentences or clauses. Similarly, referential markers such as *he, this, their*, etc. provide cohesive elements in connecting referents across sentences, clauses, and paragraphs. Cohesive relations that tie sentences together help the reader establish a coherent representation of the message. The cohesive devices provide a reader with knowledge about the relationships that are seen to exist between one element of information presented by the author to 'knowledge which is presupposed, either within the text (anaphoric or cataphoric reference, substitution, ellipsis, conjunction) or outside the text (exophoric reference)'.(Hudson,2007).

Many linguists have provided descriptions of various types and roles of cohesion in text. Grimes (1975) discusses cohesion as 'the way information in speech relates to information that is already available'. Cohesive elements are used to relate the known information to the new information. Many components of language simultaneously contribute to a text's cohesion. These include components as varied as connectives, implications, verb frames,

property relations, condition-consequence relations, general-particular relations, and other semantic relations linking clauses or sentences which are all viewed as contributing to the coherence of a text.

The reader, in either first language or second language, must be aware of the way cohesive ties are structured in order to construct meaning. Halliday and Hasan (1976) have perhaps been most closely identified with the concept of textual cohesion. They define cohesive ties as instances in which words are linked by one of five types of cohesive relationships. These relationships include: 1) referential (pronouns); 2) substitution of one word with another; 3) ellipsis; 4) conjunction, additive, adversative, causal, and temporal; and 5) lexical cohesion, including reliteration and collocation. With connective concepts, Halliday & Hasan (1976) claim that conjunction and connectors help comprehension and reading speed, specifically for younger and lower-ability readers. However, it should be kept in mind that no matter how many cohesive elements there are, the underlying semantic relations must make sense in order for us to identify the cohesive markers.

Finally, it is not to dismiss the role that cohesion may play in text comprehension. It merely serves as a caveat to the notion that cohesion itself is the cause of coherence within a text. A second language reader's formal knowledge of how cohesive markers operate will affect the ease with which the text is processed and consequently

will affect the reader's level of text comprehension. Additionally, knowledge of the system through which cohesion is established can assist second language readers when they confront trouble in text comprehension. The reader can explicitly examine troublesome text to reestablish the cohesive thread within the text.

- **Text Structure**

The term text structure refers to how the ideas in a text are structured to convey a message to a reader (Carrell, 1992). Clearly, some of the ideas presented in a text are central to the message and others are less central. Hence, text structure designates how concepts are related as well as which concepts are subordinated to others. Research over the past three decades has shown that knowledge of text structure interacts with comprehension. This research has generally focused on the two areas of narratives and expository prose, approaching the internal structure of each genre in different ways.

- **Narrative Text**

Narratives are read more quickly than expository text, and scores on recall and comprehension tests are generally higher for narrative texts than for expository texts. The conceptual basis for narratives lies in sequences of experiences and events that are based in a culture. This grounding provides a source of background knowledge for use in constructing meaning. Narratives represent

experiences based on events that are organized in knowledge structures that can be predicted by the reader. Several 'story grammars' have been proposed to account for the internal structure that ties the individual sentences within a narrative together. A story grammar is designed to present the hierarchical relationships among story components such as setting and episode, hierarchical relation-ships that are represented by the story grammar. A reader familiar with the narrative schema will look for these components in processing the text and they will guide the reader. The story grammar attempts to describe what elements of a narrative will be most salient to readers, and, by implication, what will be most and least comprehensible.

- **Expository Text**

While narrative has a structure that is temporal and causal, the connections in expository texts tend to depend upon logical relations. The complexity of categorizing expository text into clear and exclusive classes points out how the category divisions tend to be abstract example structures describing sub-components within overall text. The overall text is composed of different organizational units that are marshaled by the writer to accomplish the overall goal of presenting explanatory information in an organizational manner with which the reader is familiar. Research into expository text has indicated for some time that there is a relationship between text structure and text processing. However, an idea unit expresses one action or event, and

can generally be related to a single verb clause. Kintsch (1998) sees propositional representations as being underlying representations related to underlying meaning more closely than sentences in a text. This is because sentence are mapped on to the syntax of a language whereas propositions represent the most salient semantic relations. In short, he argues that propositions are the mental semantic processing units.

Formal schema knowledge plays a fundamental role in first and second language reading performance. Default concepts of how syntax operates, what creates a cohesive text, and how text is structured exert a strong influence on how any reader attempts to process text. The second language readers needs to master these aspects of text processing at some yet to be determined threshold. However, it is clear that the more mastery the reader has, the better he or she will be. Further, it appears that there is support for the view that both first language and second language students can be taught formal schematic concepts of text structure and can use that knowledge in recall and comprehension of the text.

4. The Concept of Grammatical, Vocabulary, and Sociocultural Knowledge in Reading Comprehension

This section presents the three essentials of prior knowledge that the EFL readers are expected to be recalled in comprehending the reading texts. They are grammatical, vocabulary, and sociocultural knowledge

which are included in schema knowledge. As we know, the role of schema knowledge in the reading process provides insights into why students may fail or succeed in comprehending text content. Murray (1980) points out that schema influences comprehension in several ways. It influences information recall as well as information storage. It shuts out irrelevant information and alters recall after reading. Anderson (1994) also believes that in reading comprehension the schemata enable readers to make inferences and fill in information not embedded explicitly in the text. The readers use text clues and the knowledge stored in their schema to infer implicit information. For further reviews about the importance of these knowledge, separately they are presented as following.

a. The Grammatical Knowledge

Schema theory has had a major influence on reading comprehension, which is viewed as an interactive process that requires the simultaneous performance of various mental operations. Studies the role of prior knowledge (e.g. Murray, 1980 and Anderson, 1994) have shown that it has great impact on reading comprehension in a foreign language. These studies have made it clear that understanding the role of schema in the reading process provides deep insights into why students may fail or succeed in comprehending the written text. The schema or backgrund knowledge about language, especially grammatical knowledge is one of fundamental knowledge that must be in cognitive processing of

the readers. This knowledge is useful in understanding the unknown words in reading text and it influence mostly in reading comprehension.

Grammar knowledge has a significant impact on inferencing. The role of grammar in L2 learning and processing has been well acknowledged. However, as Paribakht (2004) as cited in Rajnbar (2012) mentions, "it is far from clean how grammatical knowledge can assist learners in their L2 lexical processing and subsequent vocabulary acquisition". Concurring the view that grammar knowledge influences inferencing, he also notes that "lexical inferencing involves making informed guesses as to the meaning of a word in light of all available linguistic cues in combination with the learners' general knowledge of the world, their awareness of the context and their relevant linguistic knowledge". For instance, Kim and Cho (2013) as cited in Choi & Zhang (2018) found that grammatical knowledge, in term syntactic awareness, was relatively more predictive of English reading comprehension than was vocabulary knowledge. This shows that grammatical knowledge have a comparable effect on L2 comprehension to that of vocabulary knowledge.

Without understanding the meaning of words, second language readers may have a hard time developing comprehension. Consequently, vocabulary seems to be an important factor in reading comprehension (Richard & Rodgers, 2001). Based on the idea that a large amount of vocabulary is required to comprehend texts, EFL teachers tend to focus on teaching vocabulary rather than syntax. Although people believe

vocabulary plays significant role throughout the English learning process, nevertheless, vocabulary is not the only factor that can affect learner's reading.

Some studies previously presented have shown that knowledge of grammar structures plays a critical role in affecting reading comprehension In addition, Grabe (1991) states that the degrees of syntactic knowledge that second language learners have may influence their comprehension. In other words, learners who lack syntactic ability seem to not be able to achieve a higher level reading process. Additionally, readers need L2 syntactic knowledge to integrate their background knowledge and word meaning (Koda, 2005 as cited in Yu Chen, 2014). For example, when a person reads articles or newspapers in an unknown language, in order to verify his/her background knowledge and to predict the content, he/she needs to have knowledge of both the vocabulary and the grammatical structure of the text. Grammatical knowledge is important to the comprehension of texts in that it is essential to coherence building (Givón, 1995), as well as to word integration for establishing propositional meanings that enable text model construction and integration (Kintsch, 1998). A lack of explicit grammatical knowledge also helps in accounting for failures of reading comprehension monitoring.

b. The Vocabulary Knowledge

Successful reading comprehension depends heavily on readers' knowledge of meanings of individual words that appear in a text.

Vocabulary knowledge has long been recognized as having a close relationship, albeit a complex one, with the development of reading comprehension ability (Grabe, 2009). Vocabulary knowledge is not a single-faceted construct, but includes dimensions of size (or breadth, i.e., how much) and depth (i.e., how well). Some studies have shown that size and depth of vocabulary are actually closely related. On the one hand, it is hardly imaginable that a good reader with a significant amount of vocabulary has shallow and superficial knowledge of this vocabulary, and that a person with in-depth knowledge of words has only a very limited size of vocabulary.

Vocabulary knowledge has received a lot of attention in the field of reading research. As Alderson as cited in Ma & Lin (2015) noted, "reading research has consistently found a word knowledge factor on which vocabulary knowledge loads highly". For instance, in a study on text simplification, simplifying syntax does not necessarily lead to more readable texts. Instead of using a syntactic strategy, they suggested to use a conceptual strategy, which involves processing content words and utilizing lexical and content knowledge. Similarly, Horwitz as cited in Ma & Lin (2015) also found that a substantial number of language learners agreed that learning vocabulary is the most important part of learning a foreign or second language. As such, the important role that vocabulary knowledge plays in either language learning or reading comprehension could never be overemphasized.

Vocabulary knowledge consists of four interrelated dimensions: (a) vocabulary size, (b) depth of vocabulary knowledge, which contains all lexical subcomponents, such as phonemic, graphemic, morphemic, syntactic, semantic, collocational, associative, and phraseological properties, as well as frequency and register, (c) lexical organization, and (d) automaticity of receptive-productive knowledge. Taken together, it appears that there is a growing tendency to view vocabulary knowledge as a multidimensional construct instead of a single dimension.(Grabe, 2009:267). Most researchers believe second language learners have difficulty understanding reading texts because of the limited size of their vocabulary (Laufer, 1998; Richard & Rodgers 2001; Schmitt, 2000, as cited in Zhang, 2012). Therefore, researchers (Nation, 2001; Schmitt 2000; Schmitt & Clapnam, 2001, as cited in Zhang, 2012) started measuring how big a vocabulary is necessary for second language readers to achieve certain levels of reading comprehension.

c. The Sociocultural Knowledge

As presented previously that schemata are divided into two categories: formal and content schema. Formal schema is the knowledge of the language that is necessary for understanding the writer's message. Content schema relates to the background knowledge that readers have about the topic or content of the text. Sociocultural background is also one of the factors that constructs one's pre-existing knowledge about the world. It is clearly that the readers are influenced by the wider social and

cultural expectations of political, religion, ethnic, economic, and social institutions. As an example, cultural schema (Oller, 1995 in Dehghan & Sadighi,2011) involves cultural familiarity which helps readers to reconstruct the text through referring to more culturally relevant scripts. This is probably because different concepts may have different referents in different cultures and may thus generate different expectations on the reader's part.

Sociocultural theory is the theoretical framework supporting the teaching of reading through discussion of text structures. In a social learning situation, the teacher provides problems or topics for students to brainstorm for the answers or information about the given topic. Students help each other in problem solving and learn from group working. Vygotsky's key idea is his notion of the Zone of Proximal Development (ZPD). Vygotsky (1978:86) in Saleem & Azam (2015:47) pointed out that all learners have two levels of their thinking development: actual development level and potential development level. The actual development level refers to the thinking level at which the children can solve the problems by themselves, while the Zone of Proximal Development is the distance between the actual development as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.

According to McVee,et.al (2005), there are three key points in schema from a sociocultural persfective : (1) Schema and other cognitive processes or structures are embodied-that is, who we are as biological beings determines our sensorial interactions with the world and thus the nature of the representations we construct; (2) knowledge is situated in the transaction between world and individual; and (3) these transactions are mediated by culturally and socially enacted practices carried out through material and ideal artifacts.What seems equally clear is that we have little understanding of how the schemas originate and develop or what role social and cultural factors play in these genetic processes. As noted above, sociocultural theory has the potential to elaborate and further enrich these fundamental in sights concerning the genesis and development of schemas.

Sociocultural influences are believed to affect the comprehension process. More recent research views comprehension as the construction of the meaning of written communication that results from an exchange of ideas between the interpreter and the content in a specific communicative context (Harris & Hodges (1995) in McCullough, 2008:5). This process involves the social, cultural, and historical experiences of the reader with the information provided in the text. It is believed that when the intended message relates to readers' experiences, they are better able to invoke background knowledge to construct the intended meaning. Students' prior knowledge of text content-specifically, culturally bound prior knowledge is

explored to assess its effect on comprehension. As in present study, the specific sociocultural context is related with readers' experiences is intended to help them in comprehending the reading text.

Comprehension can be enhanced to the extent that the texts are well written, that is, they follow a structure which is familiar to the reader and their syntax, style, clarity of presentation, and coherence reach an acceptable level in terms of the reader's mother language. Such texts have been called reader-friendly or reader-considerate (Anderson & Armbruster, 1984 as cited in Pearson, 1984:657-679). Comprehension can also be influenced by the extent of overlap between the reader's prior knowledge and the content of the text. Sociocultural background knowledge plays an important positive role in students' achievement in reading comprehension. Moreover, good knowledge of other sociocultures helps students a lot in dealing with reading comprehension texts. In other words, learners activate their linguistic and background knowledge in order to decode or comprehend the written text. The more the knowledge learners have, the more significant of the background knowledge in L2 reading comprehension abilities. In this case, this present research is to describe the important roles of the three essentials knowledge as background knowledge in reading comprehension process. Thus, it is expected to give thoughtful consideration in preparing various reading texts of standardized reading comprehension tests.

C. Conceptual Framework

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                    │   Learning Theories in  │
                    │ Teaching English as Foreign │
                    │    Language (TEFL)      │
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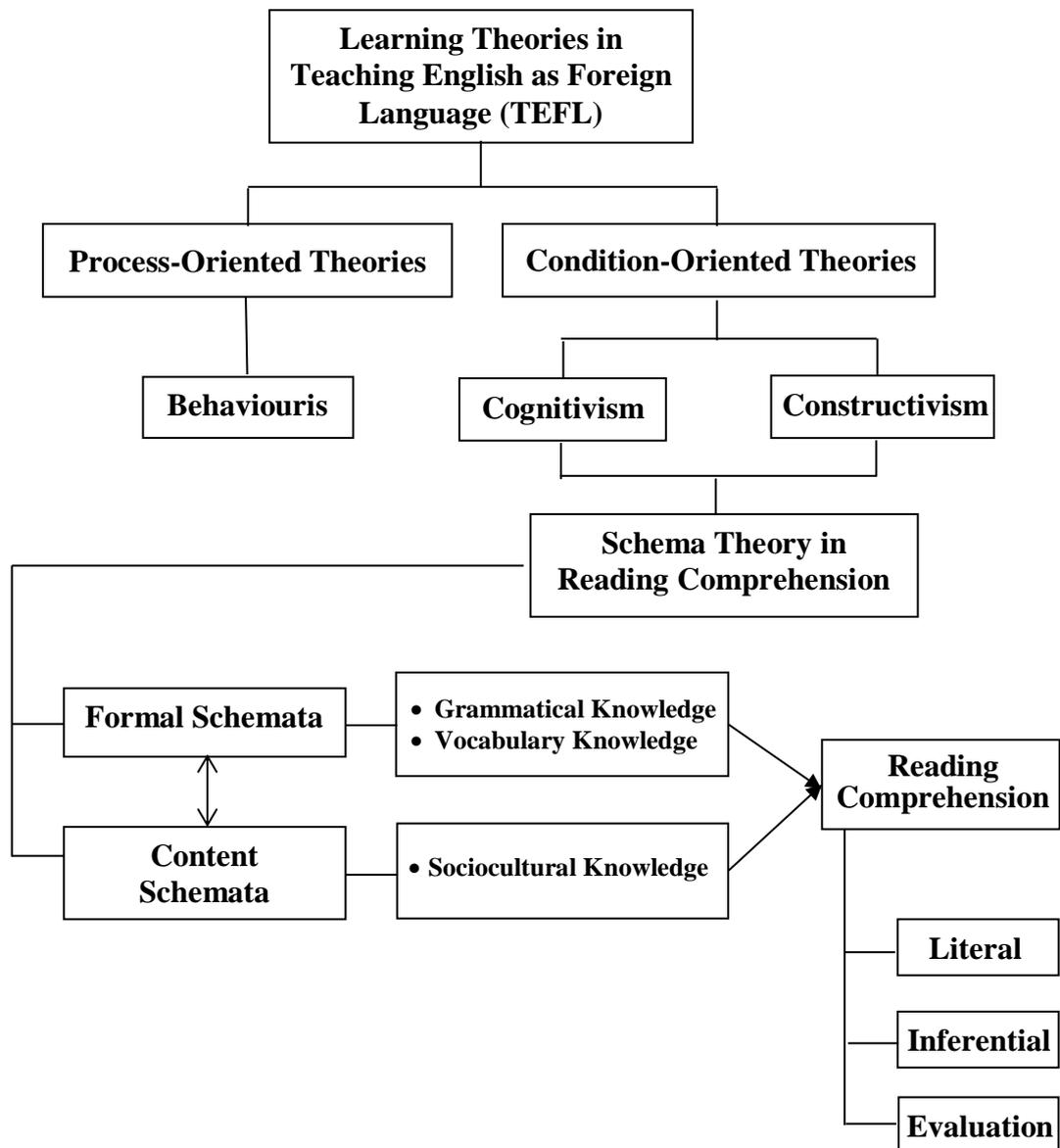
Figure 2.1. The Conceptual Framework

This conceptual framework describes the flow-chart of the concepts as thoughtful references that underline the present research works. As we know, the popular learning theories known and applied in education nowadays are Behaviourism, Constructivism and Cognitivism Learning

Theories. However, the 2013 Curriculum of teaching English as foreign language in Indonesia is most underpinned by Constructivism and Cognitivism Learning Theories. It is based on that both learning theories support the learner-centered in learning process. Constructivist perspectives are especially dealing with the goal of instruction that is to map the structure of the world onto the learner's mind, meanwhile cognitivist persfectives are primarily objectivistic, that is, the world is real, external to the learner. It means that learning a language should concern mostly in learners' view. Based on these views of Constructivism and Cognitivism Theories, the Schema Theory was developed by Barlett in reading comprehension to formalize the notion of background knowledge in readers' cognitive. Barlett defines a schema as the prior knowledge stored in the human mind for reading a text and consists of different kinds of information to recall and to make inferences. The schema knowledge consists of two kinds of schemata, namely content and formal schemata. In this present research, grammatical and vocabulary knowledge are included in formal schemata, and sociocultural knowledge is included in content schemata. The three essentials schemata are hypothesized to correlate each other to influence the readers' reading comprehension, especially in levels of literal, inferential, and evaluation comprehension.

6. **Hypotheses**

The review of the literature and the conceptual framework are described in the folowing hypotheses of research :

Quantitative Hypotheses

Regression :

Ho: There is no significant influence between dependent variable (EFL students' reading comprehension) and independent variables (grammatical, vocabulary & sociocultural knowledge)

Ha: There is significant influence between dependent variable and independent variables

The basis of decision making are :

$P \leq 0,05$ means Ho is declined (there is significant influence between dependent variable and independent variables)

$P > 0,05$ means Ho is accepted (there is no significant influence between dependent variable and independent variables)

Correlation :

H1 : The correlation among grammatical, vocabulary & sociocultural knowledge have significant infuence to EFL students' reading comprehension.

H0 : The correlation among grammatical, vocabulary & sociocultural knowledge do not have significant influence to EFL readers' reading comprehension

Statistically, these hypotheses can be written as follows:

H0 : $r = 0$ (There are no significant correlations among grammatical, vocabulary & sociocultural knowledge in influencing the EFL students' reading comprehension)

H1 : r = +1 (There are significant correlations among grammatical, vocabulary & sociocultural knowledge in influencing the EFL students' reading comprehension)

r = correlation value in hypothesized formulation

Qualitative Hypothesis

The open questionaire responses of the students about the students' ability on grammatical, vocabulary, and sociocultural knowledge in building comprehension of the reading text is expected to prove, strengthen, and broaden the quantitative hypotheses that there are correlations among the grammar, vocabulary, and sociocultural knowledge in influencing their reading comprehension. Then the result of the research can be considered to be reliable and valid.