

COMPREHENSION OF COMPLEX SENTENCES BY THAI STUDENTS

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บทคัดย่อ

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ศัพท์สำคัญ : ประโยคความซ้อน ความเข้าใจ นักศึกษามหาวิทยาลัยราชภัฏศรีสะเกษ

การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อศึกษา ๑) โครงสร้างของประโยคความซ้อนที่ นักศึกษามีปัญหาในการทำความเข้าใจมากที่สุด และ ๒) อุปสรรคในการทำความเข้าใจประโยค ความซ้อนของนักศึกษา โดยมีกลุ่มประชากรคือ นักศึกษาโปรแกรมวิชาภาษาอังกฤษ คณะ ศิลปศาสตร์และวิทยาศาสตร์ มหาวิทยาลัยราชภัฏศรีสะเกษ ในภาคเรียนที่ ๒ ปีการศึกษา ๒๕๕๕ จำนวน ๖๐ คน ซึ่งเป็นตัวแทนของกลุ่มประชากร ระดับชั้นปีที่ ๑ ถึง ๔ ที่ถูกคัดเลือกแบบโควตา

เครื่องมือที่ใช้ในการศึกษา ได้แก่ ประโยกความซ้อนที่มีโครงสร้างแตกต่างกัน ๑๐ ประโยก ประกอบด้วย นามานุประโยก จำนวน ธ ประโยก กุณานุประโยก จำนวน ๑๒ ประโยก และวิเศษณานุประโยก จำนวน ธ ประโยก ผู้วิจัยเก็บข้อมูลโดยให้กลุ่มประชากรแปลประโยกความ ซ้อนทั้ง ๑๐ ประโยกนี้ และประเมินผลโดยจัดกลุ่มและเปรียบเทียบก่าร้อยละของโครงสร้าง ประโยกแต่ละประเภทตามความเข้าใจของแต่ละโครงสร้าง

ผลของการศึกษาพบว่า โครงสร้างของประโยคความซ้อนที่มีปัญหาในการทำความ เข้าใจมากที่สุด ได้แก่ วิเศษณานุประโยคแบบลดรูปที่ทำหน้าที่เป็นตัวบอกเหตุและผล (reduced adverbial clause functioning as a cause and effect modifier) ตามด้วยวิเศษณานุประโยกที่ทำหน้าที่ เป็นตัวบอกเหตุและผลโดยใช้คำว่า "since" (adverbial clause functioning as a cause and effect modifier introduced by "since") คุณานุประโยกที่มีกำเชื่อม "whose" ขยายนามวลีในตำแหน่งกรรม (adjective clause whose subordinator is "whose" modifying an NP in the object position) และ คุณานุประโยกที่มีกำเชื่อม "that" ขยายนามวลีในตำแหน่งประธานตามลำดับ ส่วนปัญหาในการ ทำความเข้าใจประโยกกวามซ้อนของนักศึกษา คือ ความสับสนในโครงสร้างที่ซับซ้อน การไม่สามารถแยกแยะระหว่างอนุประโยกหลักและอนุประโยกรอง การแปลแบบกำต่อกำโดยไม่ ทำความเข้าใจทั้งประโยก และการเข้าใจประโยกบนพื้นฐานของภาษาของตนเอง

ABSTRACT

TITLE	: COMPREHENSION OF COMPLEX SENTENCES
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The purposes of this research were to find out: 1) the most problematic structures of complex sentences for students' comprehension and 2) comprehension problems that students have with complex sentences. The subjects were 60 English major students of Liberal Arts and Sciences, Sisaket Rajabhat University in the second semester of academic year 2012. The subjects were the representative of the 1st-4th year selected by quota sampling method.

The instrument used in the investigation was different structures of 30 complex sentences consisting of 9 noun clauses, 12 adjective clauses, and 9 adverbial clauses. The researcher collected data by asking subjects to translate these 30 complex sentences and analyzed by grouping and comparing the percentage of each sentence structures based on the comprehension of the structure.

The results revealed that The most problematic structures of complex sentences for students' comprehension were reduced adverbial clause functioning as a cause and effect modifier followed by adverbial clause functioning as a cause and effect modifier introduced by "since", adjective clause whose subordinator is "whose" modifying an NP in the object position, and adjective clause whose subordinator is "that" modifying an NP in the subject position, respectively. The comprehension problems that students have with complex sentences were confusing of complex structure, inability of indicating main clauses or subordinate clauses, word to word translation without comprehending the whole sentence, and comprehending sentences based on their first language.

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CHAPTER 1 INTRODUCTION

This chapter presents the rationale, research questions, purpose of the study, significance of the study, and scope of the study. It is organized into five main parts:

1.1 Rationale

1.2 Research Questions

1.3 Purpose of the Study

1.4 Significant of the Study

1.5 Scope of the Study

1.1 Rationale

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In Thailand, English language study begins at the elementary school level and may continue even to university level for many. However, even university level students who have studied English for many years are often still poor in the subject.

There are four important skills that must be cultivated in studying English; listening, speaking, reading, and writing. Reading is viewed as the most important skill of the four because it is the tool leading to all knowledge. Reading is not only important for learning in school, but also for future post-graduate learning (Torut, 1978). In my view, as a learning tool, reading is considered to be the most important skill of English language learning.

In spite of its importance, most Thai university students have low proficiency in English reading. The reading problems stem from their insufficient knowledge in vocabulary and sentence structure. One study found that vocabulary and sentence structure are the most problematic aspects of Thai students' comprehension. Another known issue is sentence length. Long sentence structures often result in word to word translation without understanding the whole sentence (Pantawee, 1998).

From my teaching experience at Sisaket Rajabhat University, I also have found that a very common problem that students have when reading text in English is comprehending sentences, especially those of complex structures. Comprehending sentences is a prerequisite to understanding a passage. They certainly will not have complete and accurate understanding of a passage without understanding the meaning of the individual sentences. Linguistic knowledge including words, clauses, and sentences is necessary for comprehending a written text (Levine and Statman, 1983:11 cited in Pantawee, 1988). The inability to break down complex sentence structure may cause difficulty in understanding sentences. Moreover, reading skills can be useful tools in self-study. The development of sufficient reading skills will help students with independent study. They can acquire vocabulary, sentence structure, and writing styles, which serve as a linguistic repertoire to practice other skills such as speaking, writing, and listening. These are the reasons why this researcher has chosen to study comprehension of complex sentences in order to improve and develop English learning and teaching at Sisaket Rajabhat University.

1.2 Research Questions

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There are two research questions as follows:

1.2.1 What structures of complex sentences are the most problematic for students' comprehension?

1.2.2 What comprehension problems do students have with complex sentences?

1.3 Purpose of the Study

In doing this study, the researcher aims to investigate the students' problems in comprehending complex sentences, the difficulties, and the significant points in understanding by structures of complex sentences.

1.4 Significance of the Study

It is expected that the results of this study will reveal the nature of students' problems in comprehending complex sentences. The findings can lead to improvements in reading complex English sentences in particular and in teaching English reading in general. Furthermore, the development of sufficient reading skills

will help students with independent study. They will be able to independently acquire vocabulary, sentence structure, and writing style which will serve as a linguistic repertoire to practice the other three language skills, speaking, writing, and listening.

1.5 Scope of the Study

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This study focuses only on problems concerning complex sentence comprehension of undergraduate English major students of Sisaket Rajabhat University.

CHAPTER 2 LITERATURE REVIEW

This chapter discusses complex sentences, and studies related to comprehension of complex sentences by second language learners. It is organized into three main parts:

2.1 Complex Sentences

2.1.1 Noun Clause

2.1.2 Adjective Clause

2.1.3 Adverbial Clause

2.2 Important Roles of Complex Structures in Translation and Sentence Comprehension

2.3 Effects of First Language to Second Language

2.1 Complex sentences

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Complex sentences are one of the four basic sentence structures. The other structures are simple, compound, compound-complex. By definition a complex sentence contains a subordinate clause and at least one main clause.

A main clause, also known as an independent clause, is a group of words made up of a subject and a predicate. It can stand alone as a sentence because it expresses a complete idea.

A subordinate clause also contains a subject and a verb. However, it cannot stand alone as a sentence because it does not express a complete idea. For this reason, it is sometimes called a dependent clause. It can be placed at the beginning, in the middle, or at the end of a sentence. There are three types of subordinate clauses and are discussed below (Broukal, Grammar Form and Function, 2005).

2.1.1 Noun Clause

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A noun clause is defined as a subordinate or dependent clause formed by a subordinating conjunction that is followed by a clause. Subordinating conjunction is a word that connects a main clause to a subordinate clause. Noun clauses perform nominal functions, or functions prototypically performed by noun phrases. The connectors introducing noun clauses are: that, who, what, when, where, why, how, whether, and if. There are three grammatical functions that noun clauses can perform in a sentence (Broukal, Grammar Form and Function, 2005).

2.1.1.1 Noun clause functioning as a subject

A noun clause may be used to perform the action of or action upon a predicate functioning as a subject.

Example:

Whoever ate my lunch is in big trouble. *That the museum cancelled the lecture disappoints me.*

2.1.1.2 Noun clause functioning as an object of verb

A noun clause may be used to receive the action of a verb and describe a subject functioning as an object of verb.

Example:

Our dog eats whatever we put in his bowl.

My question is whether you will sue the company for losses.

2.1.1.3 Noun clause functioning as an object of preposition

A noun clause may be used to complete the meaning of a

prepositional phrase functioning as an object of preposition, and directly following the preposition.

Example:

We have been waiting for whoever will pick us up from the

party.

My husband did not think about that I wanted a gift for my

birthday.

2.1.2 Adjective Clause

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An adjective clause or a relative clause is a kind of subordinate clause introduced by a relative pronoun; *who*, *whom*, *that*, *which*, *whose*, *when*, and *where*. It performs both a grammatical function in its own clause, and connects that relative clause to the noun or noun phrase in the main clause. This adds more information for that particular noun and it always follows the noun it modifies. There are two types of relative clause: restrictive and nonrestrictive clause (Hawkins, 2001).

A restrictive clause is a clause that is necessary to complete the meaning of the sentence in which it is written. Thus, it is essential to the meaning of the sentence. For example: *A famous television talk-show host whose name is Oprah* <u>Winfrey</u> is one of the richest women in America.

Conversely, a nonrestrictive clause is a relative clause that gives additional information, but it is not necessary to complete the meaning of the sentence in which it is used. A nonrestrictive clause is a noun or noun phrase that is referred to in a main clause which has already been identified. It is always separated from the main clause by a comma. For example: *Oprah Winfrey*, <u>who is a famous television</u> <u>talk-show host</u>, is one of the richest women in America. In contrast, the restrictive clause is not set apart from the rest of the sentence (Pinijsakkul, 2007).

There are three grammatical functions that adjective clauses can perform in a sentence. They are as follows:

2.1.2.1 Adjective clause modifying an NP in the subject position

An adjective clause may be used to identify or give additional information about a noun (people, places, or things) in the subject position.

Examples:

Marie Curie <u>who won the Nobel Prize</u> discovered radium. Athens, <u>which is the birthplace of the Olympics</u>, is in Greece

2.1.2.2 Adjective clause modifying an NP in the object position

An adjective clause may be used to identify or give additional information about a noun (people, places, or things) in the object position.

Examples:

He lives in the state of Gujarat <u>which is in Western India</u>. She missed the bus <u>that the driver drove very fast</u>. 2.1.2.3 Adjective clause modifying an NP in the object position introduced by a preposition

An adjective clause may be used to identify or give additional information about a noun (people, places, or things) NP in the object position introduced by a preposition.

Examples:

She is the woman <u>about whom I told you</u>. The music to <u>which we listened last night was good</u>.

2.1.3 Adverbial Clause

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An adverbial clause is used to modify the main clause by giving more information about time, cause and effect, contrast, and condition. It is placed before or after the main clause and preceded by a subordinate conjunction. A comma is used to separate the clause if the adverbial clause comes before the main clause. In contrast, a comma is not used if it follows the main clause. There are four grammatical functions that an adverbial clause can perform (Pinijsakkul, 2007). They are as shown in the follows:

2.1.3.1 Adverbial clause functioning as a time modifier

An adverbial clause may be used to identify or give additional information about time. Subordinating conjunctions of time are: before, after, as, while, as long as, as soon as, since, until, till, whenever, once.

> Examples: <u>After she comes</u>, she will turn on the radio. He won't come <u>as long as she smokes</u>.

2.1.3.2 Adverbial clause functioning as a cause and effect modifier

An adverbial clause may be used to identify or give additional information about cause and effect. Subordinating conjunctions of cause and effect are: because, since, as, as long as, so (that), in order to, in order that.

Examples:

He went to Miami <u>because he wanted to visit his friends</u>. <u>As they graduated</u>, they were looking for jobs. 7

2.1.3.3 Adverbial clause functioning as a contrast modifier

An adverbial clause may be used to identify or give additional information about contrast. Subordinating conjunctions of contrast are: even though, although, though, whereas, while.

Examples:

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I think of him all the time <u>while he doesn't even know me</u>. He has a lot of charisma <u>though he is rather short</u>.

2.1.3.4 Adverbial clause Functioning as a condition modifier

An adverbial clause may be used to identify or give additional information about condition. Subordinating conjunctions of condition are: if, unless, only if, whether or not, even if, providing (that), provided (that), in case (that), in the event (that).

Examples:

<u>Unless you work hard</u>, you will fail in this exam. <u>If it rains</u>, we shall stay at home.

2.2 Important Roles of Complex Structures in Translation and Sentence Comprehension

Complex structures in complex sentences play an important role in comprehending sentences to readers. They cause difficulties to both native speakers of English and also second language learners as indicated in many studies.

One evidence from the study of Juffs & Harrington (1996) revealed that both Chinese-speaking learners of English (ESL) and native speakers of English (NS) had the same problems in parsing performance with Garden Path (GP) sentences in English. They investigated parsing performance on wh-movement sentences with 25 Chinese-speaking learners of English (ESL) studying at North American University compared with 25 English native speakers by using wh-extraction structures and Garden Path (GP) sentences. Several form of Wh-sentence used in this study were a mixture of grammatical sentences and ungrammatical sentences. Grammatical sentences were used to show that subjects allow long-distance wh-movement in the sentence like *What does Ann think that her husband saw*?, and ungrammatical sentences were to test whether subjects knew when wh-movement was impossible in English sentence like *Who does Tom love the woman*?. Morover, GP sentences, which are grammatically correct sentence like *Before Mary ate the pizza was already cold*, were used to lead the reader to interpret incorrectly (Juffs & Harrington, 1996).

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The experiment was conducted using Micro Experimental Laboratory software of Schneider, in 1990, collecting reading time data in milliseconds by using the moving window technique. The result found that both Chinese-speaking learners of English (ESL) and native speakers of English (NS) had the same problems in parsing performance with GP sentences in English as times using in judgment were approximately equal. The subjects who judged the sentences accurately spent a long time due to repeatition of judgment before making decision. However, on GP sentences both NSs and ESL leaners were very inaccurate in judging to be "impossible" in many cases as in the worst case of NSs that got only 20% correct which was less than ESL learners. The result also supports the hypotheses that "Do Chinese-speaking ESL learners and English NSs have the same problems with Garden Path sentences?" (Juffs & Harrington, 1996). Juffs pointed out that ESL learners were able to judge complex sentence as good as NS, but took longer times to read the sentences. The result revealed a misunderstanding of the subjects in sentence comprehension which were caused by confusing sentences or sentence structure. Also, this study supports the result of other studies about second language (L2) processing and second language (L2) parsing in grammatical extraction of subjects that the problem was from parsing.

Another study presented difficulty and confusion when reading English texts in Torut's study, which conducted a study about sentence structure and reading comprehension using four sentence types; nominalization, relative clause, passive voice, and grammatical deletion. The sentences used in this test were separated by readability difference levels from 5 to12 according to the Flesch Reading Ease Formula separated into 2 sets; Unsimplified sentences, such as *A little girl went fishing* and Simplified sentences, such as *A girl is little* and *A girl went fishing*. The subjects were 42 teacher trainees matching in pairs on the basis of their reading grade levels on the Nelson Reading Testing Form B. The 21 pairs did both sets of Cloze Tests; one contained four transformations and the other one was a simplified version of the original, then compared both tests. It was found that the results were different in relative clause sentence comprehension. The subjects comprehended more when the

sentence was in simplified forms in the sentence like *A girl is little* and *A girl went fishing*. (Torut, 1978). It could be explained that the sentence structure of relative clauses or complex sentences caused confusion and difficulty in reading comprehension.

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Besides sentence structure, the length of the sentences also causes confusion in addition. A study pointed out that the major problem of Thai students was difficulty in reading comprehension. Pantawee found out that one of the problems was sentence structure. Some students were misled when faced with long and complex structures in reading passage, especially in complex sentences which they could not indicate main clauses or subordinate clauses, the main subject, or even the predicate. Although they knew the meaning of every word in a long sentence, but they were unable to comprehend the meaning. Due to confusion of sentence structure, they did not comprehend that sentence and did not get information from that passage. That caused word-for-word reading without considering the sentence structure correctly. That was the reason why Pantawee investigated the effects of training in using sentence analysis on students' reading comprehension by using five instruments; pre and post test, score profile, semi-structured interview, a teacher's diary and students' diaries. The subjects were 40 first-year university students. They were asked to conduct pre-test at the beginning of the semester. They were taught sentence analysis emphasizing on how to identify clauses in several forms. They were trained by doing exercises of sentence analysis. The post-test was conducted after the completion of the training weather the subjects improved their reading comprehension. The test was separated into many parts. The subjects were asked to read the passage containing complex sentences in different structures. For examples; Adverbial Clause Although the clouds gathered, they did not bring rain, Relative Clause The girl who was wearing a blue dress was crying. Then, answered the questions to test their comprehension. The experiment indicated that three out of four or 75% of the subjects got higher scores. That meant the subjects gained more abilities to understand reading passages. Moreover, they were more confident and got a better attitude about learning English as well (Pantawee, 1998).

Apart from the above problems, some significant factors can make parsing process more difficult to comprehend. Many studies revealed that types of complex

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sentences, the position of subordinate clauses, and full or reduced form of complex sentences reduce the reader's ability to comprehend the sentences.

One significant factor is the type of complex sentence. Morvay (2009) examined the relationship of the processing of the complex syntax and non-native reading comprehension of 64 Hungarians speaking 12th grader leaning English as a second language in Slovakia. The study examined how knowledge of complex syntactic structures of the first language (L1) played a significant role in second language (L2) reading comprehension. Other factors that affected reading comprehension besides knowledge in vocabulary and syntax, such as non-verbal IQ, reading habits, L1 reading skills, and knowledge of other languages, were included in the experiment. The test used in this study containing relative clauses which were used in spoken and written language, such as 1) subject-subject (SS) The nurse that saw the doctor was tall and 2) subject-object (SO) The nurse that the doctor saw was tall. In addition, adverbial clauses of time aspect using "before" e.g. The teacher took attendance before he gave a quiz and "after" e.g. After the teacher took attendance, he gave a quiz, which lots of previous studies indicated that these sentence types caused comprehending difficulty for early school grades. The experiment indicated that the subjects were able to process complex syntax and reading comprehension in adverbial clauses more than in passive and relative clause (Morvay, 2009). In contrast, the result was in conflict with previous studies that children had a problem in comprehending adverbial clause the most. On the other hand, the result conformed to some studies that also found difficulty in comprehending complex sentences.

Another factor that causes difficulty is the differences of positions in subordinate clauses which are presented in many studies. The study of Hakes et al. (1976) found difficulty of self-embedded relative clauses. They investigated the differences by comparing two types of relative clauses in two tasks: paraphrasing and phoneme monitoring. A comparison was made of the following:

The prize that the ring that the jeweler that the man that she liked visited made won was given at the fair.

and

She liked the man that visited the jeweler that made the ring that won the prize that was given at the fair.

It was generally believed that it was more difficult to understand the former compared to the later right-branching relative clause. However, the result of this study revealed that the comprehension difficulty of self-embedded relative clauses and rightbranching relative clauses was not that different from each other.

However, another experiment was conducted using subject relative clauses and object relative clauses to find out the differences of comprehension when they were interchanged in positions. A comparison was made of the following:

After the final curtain on opening night, the director (that) the repertory company had hired praised the star performer.

and

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After the final curtain on opening night, the star performer praised the director (that) the repertory company had hired.

The result appeared that it was more difficult to understand when the clauses were constructed in the position of subject (Hakes et al., 1976).

The study of Hakes et al. (1976) support the study of Andrews et al. (2006) which found that relative clauses in the objective position was the easiest to understand. He indicated previous research that revealed that the sentence comprehension entailed noun-verb relations in determining who did what to whom and the difficulty of objective-extracted relative clauses, such as The duck that monkey touched walked, which stem from the relations of complex noun-verb. The experiment was conducted to investigate comprehension of relative clause sentences with native speakers of English. Three experiments were conducted referring to Relational Complexity Theory (RC) of Just & Carpenter in 1992 and Working Memory Theory (WM) of Halford, Wilson, & Phillips in 1998. Both theories explained variance in comprehension of each sentence types. There were four sentence types used in this study; 1) object-relative sentences Sally saw the horse that the cow followed, 2) subject-relative sentences Sally saw the cow that followed the horse, 3) object-cleft sentences It was the cook that the king sent the man to, and 4) subject-cleft sentences It was the king that sent the man to the cook. (Andrews et al., 2006). However, Andrew et al. (2006)'s research conflicted with Traxler, et al. (2002)' study which found that object-relative sentence caused more difficulty than subject-relative

sentence (Traxler, Morris and Seely, 2002). The result of Traxler, et al.'s study reconfirmed their next study in 2005 (Traxler et al., 2005, cited in Andrew et al., 2006).

For further clarification about why different positions can cause difficulties in complex sentences, a study of Hatch (1971) supports finding of the above studies. Hatch investigated the children's comprehension of relative clauses with different focuses on subject, object, and possessive and different embedding positions of center and right. The subjects were Anglo (white and monolingual) kindergarten and secondgrade children. The subjects were tested individually by reading each sentence and choosing one of provided pictures that explained that sentence correctly to test for accuracy and latency of following six sentence types as follows:

(1) Subject focus

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Right embedding position

For example: The girl hit the boy that stole the ball.

=> girl hit boy (boy stole ball)

Center embedding position

For example: *The girl that stole the ball hit the boy.* => girl (girl stole ball) hit the boy

(2) Object focus

Right embedding position

For example: The girl stole the ball that the boy hit.

=> girl stole ball (boy hit ball)

Center embedding position

For example: The boy that the girl hit stole the ball.

=> boy (girl hit boy) stole the ball

(3) Possessive focus

Right embedding position

For example: *The girl hit the boy whose ball she stole*.

=> girl hit boy (girl stole ball [boy owns ball])

Center embedding position

For example: The boy whose ball she stole hit the girl.

=> boy (girl stole ball [boy owns ball]) hit girl.

It was found that the second grade children made more correct responses than the kindergarten children, but no difference in response time. Right embedding position sentences were easier to comprehend than the center one as the subjects made quicker decision and more correct responses. The most accurate responses were for possessive focus and less accurate for object and subject focus respectively, which was conflicted to the prediction of the researcher that possessive focus should be the most difficult sentence type because of its complication.

The finding supported S-V-O search strategy which was found by Bever in 1969 explaining that S-V-O+relative (e.g. The girl followed the boy that carried the dog.) was easier to comprehend than S+relative+V-O (e.g. The girl that carried the dog followed the boy). Furthermore, the minimal distance principle described by Chomsky in 1970 that children frequently used the closet noun as subject and had difficulty to interpret the sentence like "Pluto promised Mickey to dance.", they comprehended as "Mickey to be the dancer.". In contrast, children understood more in the sentence like "Pluto told Mickey to dance." (Hatch, 1971).

From the study of Hatch and findings from the previous studies above revealed that relative clauses caused several difficulties for native English speakers and also second language learners of English as many researchers studied the positions or the factors of the clauses to investigate the comprehension of people toward complex sentences.

Apart from the above factors, the forms of complex sentence are underlying in comprehension difficulties. The result from the previous studies of Hakes and Cairns in 1970 about sentence comprehension and relative pronouns found that a sentence with relative clause reduction caused more comprehending difficulty than a sentence in full relative clause form (Hakes and Cairns, 1970). In addition, another study of them about decision process during sentence comprehension in the same year also revealed similar result (Hakes and Foss, 1970, cited in Hakes, 1971). Hakes (1971) extended his study to examine grammatical relations. Referring to Fodor's study in 1968, he pointed out that human mainly rely on word meaning in order to comprehend the sentences (Fodor et al., 1968), but Hakes assumed that grammatical relations were underlying in sentence comprehension. He conducted a study which revealed that a sentence containing complex verbs; the sentence containing more than a verb, such as

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John believed Mary to be an idiot, was more difficult to understand than a sentence with simple verb; there was only one verb in the sentence. The experiments compared the difficulty of sentences containing simple and complex verbs using paraphrasing task and phoneme monitoring. Both experiments referred to paraphrasing task and anagram solving which Fodor conducted his experiment in 1968 (Fodor et al., 1968). Hakes used subordinate clauses, complex modifiers, and adverbials to test 40 university students. The experiments revealed the subjects had more difficulty with complex verbs sentences, which was the same as Fodor's finding.

2.3 Effects of First Language to Second Language

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The first language plays significant role in studying second language. According to second language learning, there are many studies conducted with participants whose first and second language are from the same Indo-European family such as Dutch learners of English. But the study of Choi in 2005 investigated Korean learners of English as a second language, which revealed considerably different acquisition among the subjects. Another study concerned about three interrelated aspect; representation, acquisition, and processing, which play a significant role in any theory of second language acquisition as arranged by Levelt in 1989. None of them can be studied independently without each other (Levelt, 1989 cited in Choi, 2005). Choi's study supports this assumption. He explored how second language learners process words in their second languages by using popular words used in their daily lives such as animal, food, clothing, and body part from English-to-Korean translation dictionary (Dong-A Dictionary) to investigate translation directions; forward translation from first language to second language (L1->L2) and backward translation from second language to first language (L2->L1). The finding revealed that forward translation from first language to second language (L1->L2) was faster than backward translation from second language to first language (L2->L1), especially participants in higher proficiency group. It could be explained that thinking process of the subjects when comprehending the meaning of the sentences were based on their first language (L1) before converting to second language (L2). However, the study also pointed out that second language (L2) proficiency affected translation performance (Choi, 2005).

In addition, the study of Altarriba and Mathis (1997) supports Choi's finding that second language learners primarily accessed the meanings for second language words (L2) through their own language (L1) and directly linked to L2 later on (Altarriba& Mathis, 1997). On the other hand, Kroll and Swewart (1994) suggested in another study that second language learners comprehended words in categorized lists took longer time than words in the mixed lists, which support Choi's experiment using word categories as difficulties in comprehending the sentence (Kroll and Swewart, 1994).

Juffs (1998) found that ESL speakers are sensitive to complex information when parsing a sentence in different structure from their first language. He investigated how speakers of English as a second language learners (ESL); Chinese, Korean, Japanese, Romance process sentence interpretation by using sentences containing structure that are initially ambiguous between main verb and reduced relative clause with wh-gap separated into good cue and bad cue. For example, good cue: *The bad boys/ seen during the morning/ were playing/ in the park* and bad cue: *The bad boys/ seen almost every day/ were playing/ in the park*. The words order in good cue sentence can be compared to complex sentence in the subjects' language or the first language (L1). In contrast, the bad cue sentence was presented as English complex sentence structure or second language (L2). The study showed that ESL used both verb subcategories information and post-ambiguity cues to analyze main verb and relative clause ambiguity in the sentences. The data indicated that bad cue caused misunderstanding of ESL the most. In contrast, good cue could be attributed to their first languages (L1).

According to the participants in Juffs (1998) study, some of their sentence structures are similar to Thai language. The structure of SVO is in the language of Chinese, Romance (Spanish, Italian, Francophone, and Portuguese), which is the same in Thai as "ăuñuăro" "I eat rice" (SVO). But, the other group is SOV as in Japanese and Korean comparing to Thai as "ăuăroñu" "I rice eat". That means many worldwide languages share the same structure even though there's no association to each other as examples indicated above (Juffs, 1998). As the result, many second language learners from above countries have difficulty when comprehending sentences in different structure from their first language, especially in complex structures as indicated in Juffs' study.

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One study revealed that ESL students used their first language to think and comprehend second language texts. Upton (1997) investigated what roles the first language (L1) and second language (L2) played in the reading strategies of L2 readers and the differences of L1 and L2 roles in reading comprehension in different L2 proficiency levels. The subjects were eleven native speakers of Japanese separated into two groups. Six subjects were "ESL students" taking intermediate ESL classes at the Minnesota English Center at the University of Minnesota. Five subjects completed ESL classes but were enrolled in academic programs at the University of Minnesota and were referred to as "academic students". The data collected from two stages; Think-aloud verbal protocols and Retrospective interviews. Think-aloud verbal protocols were used to look at how subjects used their L1 and L2 during the actual act of reading to indicate directly what they were doing at the moment of reading. Retrospective interviews were the clarification of what were reported during the think-aloud by interviewing the subjects.

The data could be explained that the ESL students used their own language to think and comprehend L2 text, while academic students were able to think and comprehend the text more without thinking of their native language. From interviewing process, the researcher found that most problems with ESL students was phrase-by-phrase translation into Japanese, then guessed the meaning and translated the whole sentence into their own language, while Academic students were trained to think in English automatically.

Upton's study also supports several studies which have shown that the translation of ESL using first language as a means of understanding and producing second language is a common cognitive strategy for ESL learners in high school level and adult learners (Upton, 1997)

Apart from above studies, the result from the study of contrastive analysis between English and Thai which found that the knowledge of sentence structure played an important role in translation. Wangkanwan (2007) found in her study that the major problem of the students was word to word translation which they always used when translating English sentences into Thai. One of the problems was using of bilingual dictionary carelessly that caused improper words used in translation. She pointed out examples of sentences that students made mistakes in translation test. For examples:

<u>Once considered</u> a poor man's food, insects are now sold in hotels and restaurants as well as on the streets

It was once believed that the world was flat

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Glowing body parts of some creatures <u>living in the deepest parts of the sea</u> where sunlight cannot reach can attack prey and scare away predators by blinking on and off

<u>After putting up with everyone making fun of me</u> and me crying about it, I started sticking up for myself when I was ten, in fourth grade.

The results showed that students had problem in translating complex sentences (especially in underline parts) in both full and reduced patterns. It also implied that students did not comprehend these sentence types. Moreover, she also suggested that translation of English-Thai and Thai-English should be practiced together in order to get more benefit and understanding in translation between two languages (Wangkanwan, 2007). In addition, the study of Connell about examining the severity of student errors in communicative English also indicated that the used of subject in a sentence, the parts of speech, and general word order of Japanese students created more problem than other grammatical aspects (Connell, 2000, cited in Sattayatham and Ratanapinyowong, 2008), which supports Wangkangwan's study.

The study of Martohardjono G., et al. (2005) looked into the parallel of the development of both L1 and L2. They investigated the role that syntactic development played in reading comprehension and relationship between emerging language knowledge and reading skill in the bilingual child. This study examined whether bilingual children with strong knowledge in their first language (Spanish) could acquire second language (English) as good as their first language or not. The subjects in this study were 22 bilingual kindergarteners studying in New York City public elementary school. They were assigned to complete three syntax measures in Spanish and English; 1) Act out task; to reveal more children's error than picture point, 2) Pre-reading test; to test ability in English (L2) in Literacy concepts, Phonological awareness, Letter and Letter-sound correspondence and listening comprehension,

3) Reading comprehension; separated into 8 types in English version and Spanish version, such as *The cat pushes the box* (English) and *El gato empuja la caja* (Spanish)

The research found that the subjects comprehended coordination more than subordination which conformed to conjoined clause strategy which predicted that children would interpret the sentence as *The dog kisses the bear that pushes the box* they always acquired as *The dog kisses the bear and pushes the box*. It could be explained that children interpret sentence like this when a relative clause began with *that* and *wh- (who)* as *and* because they were in unstressed functional word.

The comparison of comprehending ability of coordination revealed that subject coordination like *The monkey and the bear dance* was found to be easier than object coordination like *The monkey pushes the bear and the cat* in both Spanish and English. The subjects performed at the same ability level with subordination in relative clauses and temporal adverbial clauses in both Spanish and English (Martohardjono G., et al., 2005).

CHAPTER 3 METHODOLOGY

This chapter describes the subjects, instruments, procedures, and data analysis. It is organized into four main parts:

3.1 Subjects

3.2 Instrument

3.3 Procedures

3.4 Data Analysis

3.1 Subjects

The subjects in this study were 60 English major students of Liberal Arts and Sciences, Sisaket Rajabhat University in the second semester of academic year 2012. The subjects were the representative of the 1st-4th year selected by quota sampling method. The total subjects were both males and females taking five English classes per week on average at the university.

3.2 Instruments

The test contained different structures of 30 complex sentences in English mixing up to each other. The length of each sentence were controlled to be 10-12 words comprising of subordinate clause (7-9 words) and main clause (3-5 words) to equilibrium the length of every sentences. The meaning of every words were provided in attached paper. The 30 items of complex sentences comprising of 9 noun clauses, 12 adjective clauses, and 9 adverbial clauses were listed below.

3.2.1 Noun Clause

3.2.1.1 Noun clause functioning as a subject introduced by "what"

3.2.1.2 Noun clause functioning as a subject introduced by "why"

3.2.1.3 Noun clause functioning as a subject introduced by "that"

"when"

3.2.1.5 Noun clause functioning as an object of verb introduced by "who"

3.2.1.6 Noun clause functioning as an object of verb introduced by "how"

3.2.1.7 Noun clause functioning as an object of preposition introduced by

"what"

3.2.1.8 Noun clause functioning as an object of preposition introduced by "where"

3.2.1.9 Noun clause functioning as an object of verb with the omission of the complementizer "that"

3.2.2 Adjective Clause

3.2.2.1 Adjective clause whose subordinator is "who" modifying an NP in the subject position

3.2.2.2 Adjective clause whose subordinator is "which" modifying an NP in the subject position

3.2.2.3 Adjective clause whose subordinator is "that" modifying an NP in the subject position

3.2.2.4 Adjective clause whose subordinator is "where" modifying an NP in the object position

3.2.2.5 Adjective clause whose subordinator is "when" modifying an NP in the object position

3.2.2.6 Adjective clause whose subordinator is "whose" modifying an NP in the object position

3.2.2.7 Adjective clause whose subordinator is "whom" and introduced by a preposition modifying an NP in the object position

3.2.2.8 Adjective clause whose subordinator is "which" and introduced by a preposition modifying an NP in the object position

3.2.2.9 Adjective clause as a subject modifier with the omission of relative pronoun "which"

3.2.2.10 Adjective clause as a subject modifier with the omission of relative pronoun "where"

3.2.2.11 Reduced adjective clause as a subject modifier with passive

predicate

3.2.2.12 Reduced adjective clause as a subject modifier with active predicate

3.2.3 Adverbial Clause

3.2.3.1 Adverbial clause functioning as a time modifier introduced by "while"

3.2.3.2 Reduced adverbial clause functioning as a time modifier

3.2.3.3 Adverbial clause functioning as a cause and effect modifier introduced by "because"

3.2.3.4 Adverbial clause functioning as a cause and effect modifier introduced by "since"

3.2.3.5 Adverbial clause functioning as a contrast modifier introduced by "although"

3.2.3.6 Adverbial clause functioning as a contrast modifier introduced by "whereas"

3.2.3.7 Adverbial clause functioning as a condition modifier introduced by "whether"

3.2.3.8 Adverbial clause functioning as a condition modifier introduced by " if"

3.2.3.9 Reduced adverbial clause functioning as a cause and effect modifier

3.3 Procedures

The subjects were asked to complete the test by translating 30 complex sentences from English into Thai. The meanings of every words in each sentence were provided in attached paper to avoid misunderstanding of word meanings since the test focused on sentence structure. The subjects were allowed to use dictionary. The certain amount of subjects were arranged an appointment to test. The test was given as a quiz without prior notification on the topic. The time allowed for taking test was one hour.

3.4 Data Analysis

Since the test focused on sentence structure, each item was judged correct and incorrect based on below criteria.

3.4.1 Correct refers to the sentences where the subject totally conveyed complete detail considering sentence structure and the whole meaning.

3.4.2 Incorrect refers to sentences which the subject could not convey complete detail emphasizing on sentence structure. Also, the unclear sentences containing distorted detail which did not hold significant meaning of the whole sentence.

The data were described in ranges emphasizing on incorrect percentage which will separated into three groups; difficult, moderate, and easy. The difficult group consisted of the top 33% of incorrect percentage. The easy group consisted of the bottom 33% of incorrect percentage. These ranges were used to enable comparison between groups.

68.0-100.0% of incorrect percentage belonged to "the difficult group"

33.1-67.9% of incorrect percentage belonged to "the moderate group"

0.0-33.0% of incorrect percentage belonged to "the easy group"

The moderate group was not included in the analysis, but each sentence in this group will be describe as "quite difficult" (50.6-67.9%) and "quite easy" (33.1-50.5%)

The sentences in the difficult group were ranked and described in descending order as most difficult, very difficult and difficult.

The sentences in the easy group were ranked and described in descending order as easiest, very easy and easy.

The data and information obtained through the test were analyzed and interpreted by raw scores and percentage to find out answers for following questions:

(1) What structures of complex sentences are the most problematic for students' comprehension?

(2) What comprehension problems do students have with complex sentences?

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CHAPTER 4 RESULTS

This chapter presents the results of the study that answer the research questions.

4.1 Results of the study

The data was collected and judged from the translation of 30 complex sentences in different forms of three main structures of complex sentences; noun clause, adjective clause, and adverbial clause. Each sentence was judged based on the following criteria.

4.1.1 Correct refers to the sentences where the subject totally conveyed complete detail considering sentence structure and the whole meaning.

4.1.2 Incorrect refers to sentences which the subject could not convey complete detail emphasizing on sentence structure. Also, the unclear sentences containing distorted detail which did not hold significant meaning of the whole sentence.

The data will be described in ranges emphasizing on incorrect percentage which will separated into three groups; difficult, moderate, and easy. The difficult group consisted of the top 33% of incorrect percentage. The easy group consisted of the bottom 33% of incorrect percentage. These ranges were used to enable comparison between groups.

68.0-100.0% of incorrect percentage belonged to the "difficult group"

33.1-67.9% of incorrect percentage belonged to the "moderate group"

0.0-33.0% of incorrect percentage belonged to the "easy group"

The moderate group was not included in the analysis, but each sentence in this group will be describe as "quite difficult" (50.6-67.9%) and "quite easy" (33.1-50.5%)

The sentences in the difficult group were ranked and described in descending order as most difficult, very difficult, and difficult.

The sentences in the easy group were ranked and described in descending order as the easiest, very easy, and easy.

Table 4.1 Comprehension Task of Sentence No.1

	ct Percentage (%)
57	95.0
3	5.0
60	100.0
	57 3 60

Structure: Noun clause functioning as a subject introduced by "what" Sentence: What happened to those people last year will never be forgotten. Meaning: สิ่งที่เกิดขึ้นกับผู้คนเหล่านั้นเมื่อปีที่แล้วจะไม่มีทางถูกลืมเลือนเลย

From the data shown, the total number of subjects who comprehended the noun clause functioning as a subject introduced by "what" correctly was 95.0% while only 5.0% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning, active and passive confusion, tense confusion, and over detail respectively which were overall discussed in the next chapter.

Table 4.2 Comprehension Task of Sentence No.2

Description	Number of subject	Percentage (%)
Correct	56	93.3
Incorrect	4	6.7
Total	60	100.0

Structure: Noun clause functioning as a subject introduced by "why" Sentence: Why they left home to a faraway country is really suspicious. Meaning: ทำไมพวกเขาจึงจากบ้านไปสู่ถิ่นที่อยู่ห่างไกลเป็นที่น่าสงสัยจริงๆ

From the data shown, the total number of subjects who comprehended the noun clause functioning as a subject introduced by "why" correctly was 93.3% while only 6.7% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and over detail respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	28	46.7
Incorrect	32	53.3
Total	60	100.0

 Table 4.3 Comprehension Task of Sentence No.3

Structure: Noun clause functioning as a subject introduced by "that" Sentence: That her American friend does not understand English makes us astonished. Meaning: ที่เพื่อนชาวอเมริกันของเธอไม่เข้าใจภาษาอังกฤษนั้นทำให้เราประหลาดใจ

From the data shown, the total number of subjects who comprehended the noun clause functioning as a subject introduced by "that" incorrectly was 53.3% while only 46.7% comprehended the sentence correctly. It can be concluded that this sentence structure was quite difficult to comprehend. In addition, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and over detail respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	56	93.3
Incorrect	4	6.7
Total	60	100.0

Table 4.4 Comprehension Task of Sentence No.4

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Structure: Noun clause functioning as an object of verb introduced by "when" Sentence: I cannot tell anyone when I will quit this boring job. Meaning: ฉันไม่สามารถบอกใครๆ ได้เมื่อฉันจะลาออกจากงานที่น่าเบื่อนี้

From the data shown, the total number of subjects who comprehended the noun clause functioning as an object of verb introduced by "when" correctly was 93.3% while only 6.7% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and tense confusion respectively which were overall discussed in the next chapter.

Table 4.5 Comprehension Task of Sentence No.5

Description	Number of subject	Percentage (%)
Correct	52	86.7
Incorrect	8	13.3
Total	60	100.0

Structure: Noun clause functioning as an object of verb introduced by "who" Sentence: Mark awfully wonders who is standing in front of his house. Meaning: มาร์คสงสัยอย่างมากว่าใครที่กำลังยืนอยู่ตรงข้างหน้าบ้านของเขา

From the data shown, the total number of subjects who comprehended the noun clause functioning as an object of verb introduced by "who" correctly was 86.7% while only 13.3% comprehended the sentence incorrectly. It can be concluded

that this sentence structure was very easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and over detail respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	37	61.7
Incorrect	23	38.3
Total	60	100.0

 Table 4.6 Comprehension Task of Sentence No.6

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Structure: Noun clause functioning as an object of verb introduced by "how" Sentence: I cannot remember how I got that rare luxury European car. Meaning: ฉันไม่สามารถจำได้ว่าฉันได้รถยุโรปหรูหราที่หายากคันนั้นมาได้อย่างไร

From the data shown, the total number of subjects who comprehended the noun clause functioning as an object of verb introduced by "how" correctly was 61.7% while only 38.3% comprehended the sentence incorrectly. It can be concluded that this sentence structure was quite easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and tense confusion respectively which were overall discussed in the next chapter.

Table 4.7 Comprehension Task of Sentence No.7

Description	Number of subject	Percentage (%)
Correct	50	83.3
Incorrect	10	16.7
Total	60	100.0

Structure: Noun clause functioning as an object of preposition introduced by "what" Sentence: I paid attention to what little boy was trying to say.

Meaning: ฉันให้ความสนใจกับสิ่งที่เด็กชายตัวเล็กๆ กำลังพยายามที่จะพูด

From the data shown, the total number of subjects who comprehended the noun clause functioning as an object of preposition introduced by "what" correctly was 83.3% while only 16.7% comprehended the sentence incorrectly. It can be concluded that this sentence structure was very easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and tense confusion respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	53	88.3
Incorrect	7	11.7
Total	60	100.0

 Table 4.8 Comprehension Task of Sentence No.8

Structure: Noun clause functioning as an object of preposition introduced by "where" Sentence: African refugees live in where the government limitedly prepared for them. Meaning: ผู้ลี้ภัยชาวแอฟริกันอาศัยอยู่ในที่ที่รัฐบาลจัดเตรียมให้พวกเขาอย่างจำกัด

From the data shown, the total number of subjects who comprehended the noun clause functioning as an object of preposition introduced by "where" correctly was 88.3% while only 11.7% comprehended the sentence incorrectly. It can be concluded that this sentence structure was very easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and tense confusion respectively which were overall discussed in the next chapter.

Table 4.9 Comprehension Task of Sentence No.9

Description	Number of subject	Percentage (%)
Correct	58	96.7
Incorrect	2	3.3
Total	60	100.0

Structure: Noun clause functioning as an object of verb with the omission of the complementizer "that" Sentence: We strongly believe Jim will be our class president this semester.

Meaning: พวกเราเชื่ออย่างเต็มที่ว่าจิมจะได้เป็นหัวหน้าชั้นในภากเรียนนี้

From the data shown, the total number of subjects who comprehended the noun clause functioning as an object of verb with the omission of the complementizer "that" correctly was 96.7% while only 3.3% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	50	83.3
Incorrect	10	16.7
Total	60	100.0

Table 4.10 Comprehension Task of Sentence No.10

Structure: Adjective clause whose subordinator is "who" modifying an NP in the subject position

Sentence: The driver who took me to the airport yesterday was friendly. Meaning: คนขับรถคนที่พาฉันไปที่สนามบินเมื่อวานนี้นั้นเป็นมิตร

From the data shown, the total number of subjects who comprehended the adjective clause whose subordinator is "who" modifying an NP in the subject position correctly was 83.3% while only 16.7% comprehended the sentence incorrectly. It can be concluded that this sentence structure was very easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning, over detail, and tense confusion respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	54	90.0
Incorrect	6	10.0
Total	60	100.0

Table 4.11 Comprehension Task of sentence No.11

Structure: Adjective clause whose subordinator is "which" modifying an NP in the subject position

Sentence: All projects which we planned to work on vacation have failed. Meaning: แผนการทั้งหมดที่เราวางแผนทำงานช่วงปิดภาคเรียนนั้นล้มเหลวลงทั้งหมด

From the data shown, the total number of subjects who comprehended the adjective clause whose subordinator is "which" modifying an NP in the subject position correctly was 90.0% while only 10.0% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and active and passive confusion respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	13	21.7
Incorrect	47	78.3
Total	60	100.0

 Table 4.12 Comprehension Task of Sentence No.12

Structure: Adjective clause whose subordinator is "that" modifying an NP in the subject position

Sentence: The furniture that is kept neatly in the storeroom is mine. Meaning: เฟอร์นิเจอร์ที่ถูกเก็บอย่างเป็นระเบียบในห้องเก็บของนั้นเป็นของฉัน From the data shown, the total number of subjects who comprehended the adjective clause whose subordinator is "that" modifying an NP in the subject position incorrectly was 78.3% while only 21.7% comprehended the sentence correctly. It can be concluded that this sentence structure was very difficult to comprehend. In addition, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and tense confusion respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	54	90.0
Incorrect	6	10.0
Total	60	100.0

Table 4.13 Comprehension Task of Sentence No.13

Structure: Adjective clause whose subordinator is "where" modifying an NP in the object position

Sentence: This is the place where the ancient keep their precious jewelry. Meaning: นี่คือสถานที่ที่คนโบราณเก็บอัญมณีล้ำค่าของพวกเขา

From the data shown, the total number of subjects who comprehended the adjective clause whose subordinator is "where" modifying an NP in the object position correctly was 90.0% while only 10.0% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and over detail respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	55	91.7
Incorrect	5	8.3
Total	60	100.0

Table 4.14 Comprehension Task of Sentence No.14

Structure: Adjective clause whose subordinator is "when" modifying an NP in the object position

Sentence: I remember that day when my house was hit by tornados.

Meaning: ฉันจดจำวันนั้นที่เมื่อบ้านของฉันโดนพายุทอร์นาโดปะทะ

From the data shown, the total number of subjects who comprehended the adjective clause whose subordinator is "when" modifying an NP in the object position correctly was 91.7% while only 8.3% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning, over detail, and active and passive confusion respectively which were overall discussed in the next chapter.

DescriptionNumber of subjectPercentage (%)Correct1220.0Incorrect4880.0Total60100.0

Table 4.15 Comprehension Task of Sentence No.15

Structure: Adjective clause whose subordinator is "whose" modifying an NP in the object position

Sentence: I know these people whose ancestors emigrated from a wilderness area. Meaning: ฉันรู้จักผู้คนเหล่านี้ผู้ที่บรรพบุรุษของพวกเขาอพยพมาจากถิ่นทุรกันคาร From the data shown, the total number of subjects who comprehended the adjective clause whose subordinator is "whose" modifying an NP in the object position incorrectly was 80.0% while only 20.0% comprehended the sentence correctly. It can be concluded that this sentence structure was very difficult to comprehend. In addition, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	44	73.3
Incorrect	16	26.7
Total	60	100.0

Table 4.16 Comprehension Task of Sentence No.16

Structure: Adjective clause whose subordinator is "whom" and introduced by

a preposition modifying an NP in the object position Sentence: Amy is the woman about whom I told you the other day. Meaning: เอมี่เป็นผู้หญิงผู้ซึ่งฉันเล่าให้คุณฟังเกี่ยวกับเธอเมื่อวันก่อน

From the data shown, the total number of subjects who comprehended the adjective clause whose subordinator is "whom" and introduced by a preposition modifying an NP in the object position correctly was 73.3% while only 26.7% comprehended the sentence incorrectly. It can be concluded that this sentence structure was easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; active and passive confusion, incomplete meaning, and tense confusion respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	40	66.7
Incorrect	20	33.3
Total	60	100.0

Table 4.17 Comprehension Task of Sentence No.17

Structure: Adjective clause whose subordinator is "which" and introduced by a preposition modifying an NP in the object position Sentence: Bobby knows the story to which you and I listened last night. Meaning: บ๊อบบี๋รู้เรื่องราวที่คุณและฉันฟังมาเมื่อคืนนี้

From the data shown, the total number of subjects who comprehended the adjective clause whose subordinator is "which" and introduced by a preposition modifying an NP in the object position correctly was 66.7% while only 33.3% comprehended the sentence incorrectly. It can be concluded that this sentence structure was quite easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning which were overall discussed in the next chapter.

Table 4.18 Comprehension Task of Sentence No.18

Description	Number of subject	Percentage (%)
Correct	56	93.3
Incorrect	4	6.7
Total	60	100.0

Structure: Adjective clause as a subject modifier with the omission of relative pronoun "which"

Sentence: The letter Tom mailed from South Korea on Tuesday reached me yesterday. Meaning: จดหมายฉบับที่ทอมส่งมาจากเกาหถีใต้เมื่อวันอังการมาถึงฉันเมื่อวานนี้ From the data shown, the total number of subjects who comprehended the adjective clause as a subject modifier with the omission of relative pronoun "which" correctly was 93.3% while only 6.7% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning, active and passive confusion, and tense confusion respectively which were overall discussed in the next chapter.

Description	Number of subject	Remark	
Correct	60	100.0	
Incorrect	0	0.0	
Total	60	100.0	

Table 4.19 Comprehension Task of Sentence No.19

Structure: Adjective clause as a subject modifier with the omission of relative pronoun "where"

Sentence: The apartment James and his close friend live is very huge. Meaning: ห้องเช่าที่เจมส์และเพื่อนสนิทของเขาอาศัยอยู่นั้นใหญ่โตมาก

From the data shown, the total number of subjects who comprehended the adjective clause as a subject modifier with the omission of relative pronoun "where" correctly was 100.0% while non of them comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and over detail respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	47	78.3
Incorrect	13	21.7
Total	60	100.0

Table 4.20 Comprehension Task of Sentence No.20

Structure: Reduced adjective clause as a subject modifier with passive predicate Sentence: The student punished in front of the classroom yesterday is absent today. Meaning: นักเรียนคนที่ถูกลงโทษหน้าชั้นเรียนเมื่อวานนี้ไม่มาเรียนในวันนี้

From the data shown, the total number of subjects who comprehended the reduced adjective clause as a subject modifier with passive predicate correctly was 78.3% while only 21.7% comprehended the sentence incorrectly. It can be concluded that this sentence structure was very easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning, tense confusion, and over detail respectively which were overall discussed in the next chapter.

Table 4.21 Comprehension Task of Sentence No.21

Description	Number of subject	Percentage (%)
Correct	60	100.0
Incorrect	0	0.0
Total	60	100.0

Structure: Reduced adjective clause as a subject modifier with active predicate Sentence: The man winning the first prize lottery last month died last night. Meaning: ผู้ชายคนที่ถูกล๊อตเตอรี่รางวัลที่หนึ่งเมื่อเดือนที่แล้วเสียชีวิตเมื่อคืนนี้ From the data shown, the total number of subjects who comprehended the reduced adjective clause as a subject modifier with active predicate correctly was 100.0% while none of them comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)	
Correct	46	76.7	
Incorrect	14	23.3	
Total	60	100.0	

Table 4.22 Comprehension Task of Sentence No.22

Structure: Adverbial clause functioning as a time modifier introduced by "while" Sentence: I fell asleep while the teacher was lecturing in the class. Meaning: ฉันหลับลงในขณะที่คุณครูกำลังบรรยายในชั้นเรียน

From the data shown, the total number of subjects who comprehended the adverbial clause functioning as a time modifier introduced by "while" correctly was 76.7% while only 23.3% comprehended the sentence incorrectly. It can be concluded that this sentence structure was easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning, over detail, and tense confusion respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	50	83.3
Incorrect	10	16.7
Total	60	100.0

Table 4.23 Comprehension Task of Sentence No.23

Structure: Reduced adverbial clause functioning as a time modifier Sentence: Delivering the pizza to my steady customer, I accidentally saw Sam. Meaning: ฉันเห็นแซม โดยบังเอิญตอนที่ฉันนำพิซซ่าไปส่งให้ถูกค้าขาประจำ

From the data shown, the total number of subjects who comprehended the reduced adverbial clause functioning as a time modifier correctly was 83.3% while only 16.7% comprehended the sentence incorrectly. It can be concluded that this sentence structure was very easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and active and passive confusion respectively which were overall discussed in the next chapter.

Table 4.24 Comprehension Task of Sentence No.24

Description	Number of subject	Percentage (%)
Correct	57	95.0
Incorrect	3	5.0
Total	60	100.0

Structure: Adverbial clause functioning as a cause and effect modifier introduced by "because"

Sentence: Kate hates whisky because she is severely allergic to alcoholic drink. Meaning: เคทเกลียคเหล้าวิสกี้เพราะเธอแพ้เครื่องคื่มแอลกอฮอล์อย่างรุนแรง From the data shown, the total number of subjects who comprehended the adverbial clause functioning as a cause and effect modifier introduced by "because" correctly was 95.0% while only 5.0% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and over detail respectively which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)	
Correct	10	16.0	
Incorrect	50 83.3		
Total	60	100.0	

Table 4.25 Comprehension Task of Sentence No.25

Structure: Adverbial clause functioning as a cause and effect modifier introduced by "since"

Sentence: Since you are the most excellent officer, you should be promoted. Meaning: คุณควรได้เลื่อนตำแหน่งเนื่องจากคุณเป็นพนักงานที่ยอคเยี่ยมที่สุด

From the data shown, the total number of subjects who comprehended the adverbial clause functioning as a cause and effect modifier introduced by "since" incorrectly was 83.3% while only 16.0% comprehended the sentence correctly. It can be concluded that this sentence structure was very difficult to comprehend. In addition, the data revealed that the subjects had some difficulties in other grammatical rules; over detail which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	37	61.7
Incorrect	23	38.3
Total	60	100.0

Table 4.26 Comprehension Task of Sentence No.26

Structure: Adverbial clause functioning as a contrast modifier introduced by "although"

Sentence: Fred works as a cook although he is not interested in food.

Meaning: เฟรดทำงานเป็นพ่อครัวถึงแม้ว่าเขาไม่ได้สนใจในเรื่องอาหาร

From the data shown, the total number of subjects who comprehended the adverbial clause functioning as a contrast modifier introduced by "although" correctly was 61.7% while only 38.3% comprehended the sentence incorrectly. It can be concluded that this sentence structure was quite easy to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and over detail respectively which were overall discussed in the next chapter.

Table 4.27 Comprehension Task of Sentence No.27

Description	Number of subject	Percentage (%)
Correct	59	98.3
Incorrect	1	1.7
Total	60	100.0

Structure: Adverbial clause functioning as a contrast modifier introduced by "whereas" Sentence: Whereas Mary is rich and good looking, John is poor and ugly. Meaning: จอห์นนั้นจนและอัปลักษณ์แต่ในทางตรงกันข้ามแมรี่นั้นรวยและหน้าตาดี From the data shown, the total number of subjects who comprehended the adverbial clause functioning as a contrast modifier introduced by "whereas" correctly was 98.3% while only 1.7% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning which were overall discussed in the next chapter.

Description	Number of subject	Percentage (%)
Correct	55	91.7
Incorrect	5	8.3
Total	60	100.0

Table 4.28 Comprehension Task of Sentence No.28

Structure: Adverbial clause functioning as a condition modifier introduced by "whether" Sentence: I will go swimming tomorrow whether it will be clod or not. Meaning: ฉันจะไปว่ายน้ำพรุ่งนี้ไม่ว่ามันจะหนาวหรือไม่

From the data shown, the total number of subjects who comprehended the adverbial clause functioning as a condition modifier introduced by "whether" correctly was 91.7% while only 8.3% comprehended the sentence incorrectly. It can be concluded that this sentence structure was the easiest to comprehend. However, the data revealed that the subjects had some difficulties in other grammatical rules; incomplete meaning and over detail respectively which were overall discussed in the next chapter.

 Table 4.29 Comprehension Task of Sentence No.29

Description	Number of subject	Percentage (%)
Correct	60	100.0
Incorrect	0	0.0
Total	60	100.0

Comment	C	Incorrect				rect
Group	Sentence	Number of	Percentage	Number of	Percentage	
M. I	No. 3	32	53.3	28	46.7	
Moderate	No. 6	23	38.3	37	61.7	
No. 7 No. 5 No. 8 Easy No. 2 No. 4	No. 7	10	16.7	50	83.3	
	No. 5	8	13.3	52	86.7	
	No. 8	7	11.7	53	88.3	
	No. 2	4	6.7	56	93.3	
	No. 4	4	6.7	56	93.3	
	No. 1	3	5.0	57	95.0	
	No. 9	2	3.3	58	96.7	

 Table 4.31 Comprehension Task of Noun Clauses (in descending order)

From the data shown, the comprehension task of the subjects who comprehended the noun clauses incorrectly described in ranges emphasizing on incorrect percentage in descending order; two sentences belonged to the moderate group and seven sentences belonged to the easy group. None of them belonged to the difficult group.

(1) Moderate group:

Sentence No. 3: Noun clause functioning as a subject introduced by "that" (53.3%)

Sentence No. 6: Noun clause functioning as an object of verb introduced by "how" (38.3%)

(2) Easy group:

Sentence No. 7: Noun clause functioning as an object of preposition introduced by "what" (16.7%)

Sentence No. 5: Noun clause functioning as an object of verb introduced by "who" (13.3%)

Sentence No. 8: Noun clause functioning as an object of preposition introduced by "where" (11.7%)

Sentence No. 2: Noun clause functioning as a subject introduced by "why" (6.7%)

Sentence No. 4: Noun clause functioning as an object of verb introduced by "when" (6.7%)

Sentence No. 1: Noun clause functioning as a subject introduced by "what" (5.0%)

Sentence No. 9: Noun clause functioning as an object of verb with the omission of the complementizer "that" (3.3%)

Table 4.32 Comprehension Task of Adjective Clauses (in descending order)

Group	Sentence	Incorrect		Correct		
oronp		Number of	Percentage	Number of	Percentage	
Difficult	No. 15	48	80.0	12	20.0	
Difficult	No. 12	47	78.3	13	21.7	
Moderate	No. 17	20	33.3	40	66.7	
	No. 16	16	26.7	44	73.3	
	No. 20	13	21.7	47	78.3	
	No. 10	10	16.7	50	83.3	
	No. 11	6	10.0	54	90.0	
Easy	No. 13	6	10.0	54	90.0	
	No. 14	5	8.3	55	91.7	
	No. 18	4	6.7	56	93.3	
	No. 19	0	0.0	60	100.0	
	No. 21	0	0.0	60	100.0	

From the data shown, the comprehension task of the subjects who comprehended the adjective clauses incorrectly described in ranges emphasizing on incorrect percentage in descending order; two sentences belonged to the difficult group, one sentence belonged to the moderate group and nine sentences belonged to the easy group. (1) Difficult group:

Sentence No. 15: Adjective clause whose subordinator is "whose" modifying an NP in the object position (80.0%)

Sentence No. 12: Adjective clause whose subordinator is "that" modifying an NP in the subject position (78.3%)

(2) Moderate group:

Sentence No. 17: Adjective clause whose subordinator is "which" and introduced by a preposition modifying an NP in the object position (33.3%)

(3) Easy group:

Sentence No. 16: Adjective clause whose subordinator is "whom" and introduced by a preposition modifying an NP in the object position (26.7%)

Sentence No. 20: Reduced adjective clause as a subject modifier with passive predicate (21.7%)

Sentence No. 10: Adjective clause whose subordinator is "who" modifying an NP in the subject position (16.7%)

Sentence No. 11: Adjective clause whose subordinator is "which"

modifying an NP in the subject position (10.0%)

Sentence No. 13: Adjective clause whose subordinator is "where"

modifying an NP in the object position (10.0%)

Sentence No. 14: Adjective clause whose subordinator is "when" modifying an NP in the object position (8.3%)

Sentence No. 18: Adjective clause as a subject modifier with the omission of relative pronoun "which" (6.7%)

Sentence No. 19: Adjective clause as a subject modifier with the omission of relative pronoun "where" (0.0%)

Sentence No. 21: Reduced adjective clause as a subject modifier with active predicate (0.0%)

Group	Sentence	Incorrect		Correct	
-	-	Number of	Percentage	Number of	Percentage
Difficult	No. 30	54	90.0	6	10.0
	No. 25	50	83.3	10	16.7
Moderate	No. 26	23	38.3	37	61.7
	No. 22	14	23.3	46	76.7
	No. 23	10	16.7	50	83.3
Easy	No. 28	5	8.3	55	91.7
Lasy	No. 24	3	5.0	57	95.0
	No. 27	1	1.7	59	98.3
	No. 29	0	0.0	60	100.0

 Table 4.33 Comprehension Task of Adverbial Clauses (in descending order)

From the data shown, the comprehension task of the subjects who comprehended the adverbial clauses incorrectly described in ranges emphasizing on incorrect percentage in descending order; two sentences belonged to the difficult group, one sentence belonged to the moderate group and six sentences belonged to the easy group.

(1) Difficult group:

Sentence No. 30: Reduced adverbial clause functioning as a cause and effect modifier (90.0%)

Sentence No. 25: Adverbial clause functioning as a cause and effect modifier introduced by "since" (83.3%)

(2) Moderate group:

Sentence No. 26: Adverbial clause functioning as a contrast modifier introduced by "although" (38.3%)

(3) Easy group:

Sentence No. 22: Adverbial clause functioning as a time modifier introduced by "while" (23.3%)

Sentence No. 23: Reduced adverbial clause functioning as a time modifier (16.7%)

Sentence No. 28: Adverbial clause functioning as a condition modifier introduced by "whether" (8.3%)

Sentence No. 24: Adverbial clause functioning as a cause and effect modifier introduced by "because" (5.0%)

Sentence No. 27: Adverbial clause functioning as a contrast modifier introduced by "whereas" (1.7%)

Sentence No. 29: Adverbial clause functioning as a condition modifier introduced by "if" (0.0%)

Table 4.34 Comprehension Task of the Difficult Group (in descending order)

	~	Incorrect		Correct	
Туре	Sentence	Number of subjects	Percentage (%)	Number of subjects	Percentage (%)
Noun Clause	-		-	-	-
Adjective	No. 15	48	80.0	12	20.0
Clause	No. 12	47	78.3	13	21.7
Adverbial	No. 30	54	90.0	6	10.0
Clause	No. 25	50	83.3	10	16.7

From the data shown, the comprehension task of the difficult group in descending order; the most difficult two sentences belonged to adverbial clause and other two sentences belonged to the adjective clause. None of them belonged to noun clause.

These sentences from difficult group are discussed in descending order beginning from the most difficult one.

(1) Adverbial clause, Sentence no. 30 (90.0%)

Structure: Reduced adverbial clause functioning as a cause and effect modifier

Sentence: Being unable to afford a cheap car, she bought a bicycle. Meaning: เธอซื้อจักรยานเพราะเธอไม่สามารถซื้อรถยนต์ราคาถูกได้ The errors found in the subjects' answers were as follows: For examples: <u>ในเวลานี้</u>หล่อนไม่สามารถซื้อรถราคาถูกได้ หล่อนจึงต้องซื้อ

จักรยาน

<u>ความเป็นอยู่</u>ไม่สามารถซื้อรถยนต์ราคาถูกได้, หล่อนจึงซื้อจักรยาน

It can be seen that the subjects could not comprehend this sentence structure because of the reduction form of this structure. The phrase "Because she was" was reduced from the full sentence. The reduced part was considered the most important part that helped subjects to comprehend this sentence. The word "being" misled subjects to comprehend this sentence as a present continuous form or the word of state indication.

Considering similar structure of reduced adverbial clause functioning as a time modifier in the sentence no. 23 "Delivering the pizza to my steady customer, I accidentally saw Sam.", "ฉันเห็นแซมโดยบังเอิญตอนที่ฉันนำพิซซ่าไปส่งให้ลูกค้าขาประจำ", although the position of the subordinate clause was moved to the beginning, but the subject comprehended this structure better. Another reason was the reduced part "When I was" was cut, but remaining information was enough to lead subjects to understand the whole meaning. To compared to the sentence no. 30 "Being unable to afford a cheap car, she bought a bicycle." "เธอซื้อจักรยานเพราะเธอไม่สามารถซื้อรถยนต์

รากาถูกได้", the reduced part "Because she was" was cut from the sentence. The word "because" was considered the key word which led to the meaning of cause and effect. Since this word disappeared, the remaining information was not enough to comprehend.

(2) Adverbial clause, Sentence no. 25 (83.3%)

Structure: Adverbial clause functioning as a cause and effect modifier introduced by "since"

Sentence: Since you are the most excellent officer, you should be promoted. Meaning: กุณควรได้เลื่อนตำแหน่งเนื่องจากคุณเป็นพนักงานที่ยอคเยี่ยมที่สุด

The errors found in the subjects' answers were as follows: For examples: กุณเป็นพนักงานขอดเยี่ยม<u>ตั้งแต่</u>คุณได้เลื่อนตำแหน่ง

<u>ขณะนี้</u>คุณเป็นพนักงานที่ยอดเยี่ยมที่สุด ุคุณควรเลื่อนตำแหน่ง It can be seen that the subjects could not comprehend this sentence structure because of the position of the subordinate clause which moved to the beginning. The word "since" was the key word that misled subjects to comprehend this sentence as a period of time while "since" in this sentence was about cause and effect. In addition, the use of comma separating between clauses was not used in Thai language, but some subjects used word to word technique to comprehend this structure. That's why they put the comma in the sentence as appeared in the original sentence instead of moving main clause to the front before comprehending.

Considering similar structure of adverbial clause functioning as a cause and effect in the sentence no. 24 "Kate hates whisky because she is severely allergic to alcoholic drink.", "เคทเกลียดเหล้าวิสกี้เพราะเธอแพ้เครื่องดื่มแอลกอฮอล์อย่างรุนแรง",

the word "because" was normally used to introduce cause and effect compared with "since" that was seldom used in this way. The other significant point was the position of the subordinate clause which came after the main part. The subject could comprehend the whole meaning without any confusion caused from movement between main clause and subordinate clause within this structure form.

(3) Adjective clause, Sentence no. 15 (80.0%)

Structure: Adjective clause whose subordinator is "whose" modifying an NP in the object position

Sentence: I know these people whose ancestors emigrated from a wilderness area.

Meaning: ฉันรู้จักผู้คนเหล่านี้ผู้ที่บรรพบุรุษของพวกเขาอพยพมาจากถิ่นทุรกันคาร

The errors found in the subjects' answers were as follows: For examples: ฉันรู้จัก<u>บุคคลที่เป็น</u>บรรพบุรุษซึ่งอพยพมาจากถิ่นทุรกันคาร

ฉันรู้ว่า<u>ผู้คนเหล่านี้คือ</u>บรรพบุรุษที่อพยพมาจากถิ่นทุรกันคาร

It can be seen that the subjects could not comprehend this sentence structure because of the confused structure of the subordinate clause introduced by the word "whose". Since "whose" modified the NP in the object position was the significant point that misled subjects to comprehend "whose" as "who", subjects comprehend the modifier of the object as the main object.

Considering similar structure of adjective clause modifying an NP in the object position, but different subordinator in the sentence no. 13 "This is the place where the ancient keep their precious jewelry.", "นี่คือสถานที่ที่คนโบราณเก็บอัญมณีล้ำค่า ของพวกเขา", and sentence no. 14 "I remember that day when my house was hit by tornados.", "ฉันจดจำวันนั้นที่เมื่อบ้านของฉันโดนพายุทอร์นาโดปะทะ". The subordinators "where" and "when" in these sentences were clearly link the main clause to the subordinate clause, while the subordinator "whose" in the sentence no. 15 "I know these people whose ancestors emigrated from a wilderness area.", "ฉันรู้จักผู้คนเหล่านี้ ผู้ที่บรรพบุรุษของพวกเขาอพยพมาจากถิ่นทุรกันดาร" referred to a possession. However the subjects were misled to comprehend "whose" as "who".

(4) Adjective clause, Sentence no. 12 (78.3%)

Structure: Adjective clause whose subordinator is "that" modifying an NP in the subject position

Sentence: The furniture that is kept neatly in the storeroom is mine. Meaning: เฟอร์นิเจอร์ที่ถูกเกี่บอย่างเป็นระเบียบในห้องเก็บของนั้นเป็นของฉัน The errors found in the subjects' answers were as follows: For examples: เฟอร์นิเจอร์ถูกเก็บรักษาไว้อย่างเป็นระเบียบใน<u>ห้องเก็บของของฉัน</u>

เฟอร์นิเจอร์ที่อยู่ใน<u>ห้องเก็บของของฉัน</u>อยู่อย่างเป็นระเบียบ

It can be seen that the subjects could not comprehend this sentence structure because of the confusing structure of the subordinate clause introduced by the word "that". Since "that" modified the NP in the subject position located in the middle between subject and the complement, but the subjects linked "storeroom" to the subject complement while it was a part of the subordinate clause that modified the subject "furniture".

Considering similar structure of adjective clause modifying an NP in the subject position, but different subordinator in the sentence no. 10 "The driver who took me to the airport yesterday was friendly.", "คนขับรถคนที่พาลันไปที่สนามบินเมื่อ วานนี้นั้นเป็นมิตร", and sentence no. 11 "All projects which we planned to work on vacation have failed.", "แผนการทั้งหมดที่เราวางแผนทำงานช่วงปิดภาคเรียนนั้นล้มเหลวลง ทั้งหมด". The subordinators "who" and "which" were not different from "that" because they were normally used in general. The significant point was the relation of the subordinate clause that linked to the main clause in the sentence no. 12 "The furniture that is kept neatly in the storeroom is mine." "เฟอร์นิเจอร์ที่ถูกเก็บอย่างเป็นระเบียบในห้อง เก็บของนั้นเป็นของฉัน". The subjects comprehended the subordinate clause as a part of the subject complement while the other two sentence whose subordinators are "who" and "which" were clearly separated from the main clause

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		Incorrect		Correct		
Туре	Sentence -	Number of subjects	Percentage (%)	Number of subjects	Percentage (%)	
	No. 9	2	3.3	58	96.7	
	No. 1	3	5.0	57	95.0	
	No. 2	4	6.7	56	93.3	
Noun Clause	No. 4	4	6.7	56	93.3	
	No. 8	7	11.7	53	88.3	
	No. 5	8	13.3	52	86.7	
	No. 7	10	16.7	50	83.3	
	No. 19	0	0.0	60	100.0	
	No. 21	0	0.0	60	100.0	
	No. 18	4	6.7	56	93.3	
Adjective	No. 14	5	8.3	55	91.7	
Clause	No. 11	6	10.0	54	90.0	
	No. 13	6	10.0	54	90.0	
	No. 10	10	16.7	50	83.3	
	No. 20	13	21.7	47	78.3	
	No. 16	16	26.7	44	73.3	
	No. 29	0	0.0	60	100.0	
	No. 27	1	1.7	59	98.3	
Adverbial	No. 24	3	5.0	57	95.0	
Clause	No. 28	5	8.3	55	91.7	
	No. 23	10	16.7	50	83.3	
	No. 22	14	23.3	46	76.7	

Table 4.35 Comprehension Task of the Easy Group (in ascending order)

From the data shown, the comprehension task of the easy group in descending order, the easiest two sentences belonged to adjective clause and another one sentences belonged to the adverb clause.

The overall results separating each structure revealed that most of the subjects could comprehend adjective clauses very well in both forms of subject modifier with the omission of relative pronoun and also in reduced form of a subject modifier with active predicate. Secondly, adverbial clause functioning as a condition modifier and functioning as a contrast modifier were easier to comprehend as well. Also, the noun clause functioning as an object of verb in the omission form was another easy structure that subjects comprehended most. It can be concluded that the adjective clause was the easiest complex sentence structure that Thai students could comprehend.

Considering from the overall sentences, the top three sentences that were the easiest to comprehend when comparing all sentence structures were as follows:

(1) Adjective clause, Sentence no. 19 (100.0% correct); adjective clause as a subject modifier with the omission of relative pronoun "where" in the sentence "The apartment James and his close friend live in is very huge." "ห้องเช่าที่เจมส์และเพื่อนสนิท ของเขาอาศัยอยู่นั้นใหญ่โตมาก"

(2) Adjective clause, Sentence no. 21 (100.0% correct); reduced adjective clause as a subject modifier with active predicate in the sentence "The man winning the first prize lottery last month died last night." "ผู้ชายคนที่ถูกล๊อตเตอรี่รางวัลที่หนึ่งเมื่อ เดือนที่แล้วเสียชีวิตเมื่อคืนนี้"

(3) Adverbial clause, Sentence no. 29 (100.0% correct); adverbial clause functioning as a condition modifier introduced by "if" in the sentence "If you want to go on vacation, you must save money." "คุณต้องเก็บเงินถ้าคุณอยากลาหยุคพักผ่อน"

However, the easiest noun clause is noun clause functioning as an object of verb introduced by "that" in the omission form in the sentence no. 9 (96.7% correct)

"We strongly believe Jim will be our class president this semester." "พวกเราเชื่ออย่างเต็ม ที่ว่าจิมจะได้เป็นหัวหน้าชั้นในภาคเรียนนี้"

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In summary, it can be concluded that the easiest sentence structures that the subjects could comprehend 0.0% incorrect were adjective clause as a subject modifier with the omission of relative pronoun "where", reduced adjective clause as a subject modifier with active predicate, and adverbial clause functioning as a condition modifier introduced by "if". In contrast, the most difficult sentence structure that the subjects could not comprehend or 90.0% incorrect was reduced adverbial clause functioning as a cause and effect modifier.

CHAPTER 5

DISCUSSION AND CONCLUSION

In this chapter, all the results presented in the previous chapter are discussed including limitations and recommendations for further study. It is organized into four main parts:

5.1 Discussion

5.2 Comprehension Difficulties of Complex Structures

5.3 Effects of First Language to Second Language

5.4 Conclusion

5.5 Limitations of the study

5.6 Recommendations for further study

5.1 Discussion

Based on the results revealed in the previous chapter, the problematic sentences indicated in the difficult group that the subjects comprehended incorrectly in the range of 68.0-100.0% were; 1) sentence no. 30: reduced adverbial clause functioning as a cause and effect modifier (90.0%)., 2) sentence no. 25: adverbial clause functioning as a cause and effect modifier introduced by "since" (83.3%), 3) sentence no. 15: adjective clause whose subordinator is "whose" modifying an NP in the object position (80.0%) and 4) sentence no. 12: adjective clause whose subordinator is "that" modifying and NP in the subject position (78.3%).

Although the result from this study was incompatible with Morvay (2009) who found that the adverbial clause was the sentence type that subjects could comprehend the most (Morvay, 2009), but the study of Morvay did not indicate the structure of adverbial clause structure. On the other hand, this study went deeper to test different structures of adverbial clause in several structures to find out that it was not every structure of adverbial clause that was easy to comprehend, but some

structure was the most difficult among other adverbial clauses or even noun clauses and adjective clauses. In this section, the following issues are considered and discussed.

5.2 Comprehension Difficulties of Complex Structures

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According to difficulties in comprehending complex sentences mentioned in many studies for both native speakers and also second language learners, the result of this study found several kinds of mistakes in subjects' comprehension that were expressed through their translations in each type of complex sentences. As claimed by Juffs & Harrington (1996), the major misunderstanding of the subjects in sentence comprehension was often caused by sentence structures. ESL learners spent a long time processing and parsing while comprehending the sentences. (Juffs & Harrington, 1996).

The subjects in this study had one hour to translate 30 complex sentences or approximately two minutes per sentence. Only a few of them could complete all the sentences within an hour, but most of them spent a whole one hour. Due to accessibility of vocabulary meaning being available in the test, subjects merely spent time in analyzing and comprehending sentence structures. Based on their time spent in testing and their comprehending performance, it revealed that the confusion of complex sentence structures caused difficulty to the subjects that made them repeatedly read the sentence. Based on the time the subjects spent while doing the test, most of the subjects spent much time on reading and comprehending some sentence structures which could be implied that those structure caused confusions. Similar to Torut (1978) and Pantawee (1998), complex sentences caused confusion and difficulty in reading comprehension (Torut, 1978 and Pantawee, 1998).

In addition, it can be explained that the reason why subjects were confused in complex structures was due to the inability of indicating main clauses or subordinate clauses, main subjects, or even the predicates. As indicated by Pantawee (1998), the result revealed that although subjects knew the meaning of every word, but they were unable to comprehend the meaning. Due to confusion over the sentence structure, they did not comprehend the sentences but decoded sentence meaning word by word without correctly considering sentence structure (Pantawee, 1998). The results in the previous chapter revealed that 80.0% of the subjects could not comprehend the structure of adjective clause whose subordinator is "whose" modifying an NP in the object position in the sentence no. 15 "I know these people whose ancestors emigrated from a wilderness area." "ฉันรู้จักผู้คนเหล่านี้ผู้ที่บรรพบุรุษของ พวกเขาอพยพมาจากอื่นทุรกันดาร". The subjects could not comprehend this sentence structure because of the confused structure of the subordinate clause introduced by the word "whose". Since "whose" modified the NP in the object position was the significant point that misled subjects to comprehend "whose" as "who", subjects comprehend the modifier of the object as the main object.

Above mentioned results are similar to Pantawee 1998's study. It could imply that they were confused in sentence structure, but they knew the meaning of every word. Then, they ended up with putting the meaning of each word in order without comprehending the whole meaning of the sentence. Referring to sentence no. 25 adverbial clause functioning as a cause and effect modifier introduced by "since" in the sentence "Since you are the most excellent officer, you should be promoted" "คุณควรได้เลื่อนตำแหน่งเนื่องจากคุณเป็นพนักงานที่ขอดเยี่ยมที่สุด". The subjects of 83.3%

could not comprehend this sentence structure because of the position of the subordinate clause which moved to the beginning. The word "since" was the key word that misled subjects to comprehend this sentence as a period of time which was more familiar to the subject than the meaning of cause and effect. In addition, the use of comma to separate between clauses is not used in Thai language, but some subjects use word to word technique to comprehend this structure. That's why they put the comma in the sentence as appeared in the original sentence instead of moving the main clause to the front before comprehending.

Moreover, the study presented confusion in sentence structure was sentence no. 12: adjective clause whose subordinator is "that" modifying an NP in the subject position in the sentence "The furniture that is kept neatly in the storeroom is mine." "เฟอร์นิเจอร์ที่ถูกเก็บอย่างเป็นระเบียบในห้องเก็บของนั้นเป็นของฉัน". The data showed a wrong translation as "เฟอร์นิเจอร์ที่ถูกเก็บรักษาไว้อย่างเป็นระเบียบในห้องเก็บของของฉัน" which found that subject linked "mine" to "storeroom" instead of "furniture". It could be explained that the subjects were confused with the sentence structure in sentence no.12 because of the position of subordinate clause located in the middle between subject and complement. Therefore, they conveyed meaning without comprehending the whole sentence carefully.

Apart from the difficulty in indicating the main clause or the subordinate clause and the different position of subordinate clauses in the complex sentence as indicated in Hakes et al. (1976) and Hatch (1971), the full or reduced form could reduce subjects' comprehending abilities (Hakes et al., 1976 and Hatch, 1971). The result indicated that reduced form of adverbial clauses as in sentence no. 30; reduced adverbial clause functions as a cause and effect modifier in the sentence "Being unable to afford a cheap car, she bought a bicycle / เธอซื้อจักรยานเพราะเธอไม่

สามารถซื้อรถยนต์รากาถูกได้" was the most difficult form when compared with other reduced forms. The subjects that comprehended this sentence structure incorrectly was 90.0%, while the reduced form of adjective clause as a subject modifier with active predicate in the sentence "The man winning the first prize lottery last month died last night." "ผู้ชายคนที่ถูกถ๊อตเตอรี่รางวัลที่หนึ่งเมื่อเดือนที่แล้วเสียชีวิตเมื่อคืนนี้" was the easiest one comparing all reduced form.

On the contrary, the result from the previous study of Hakes (1971) found that sentence with reduced relative clause caused more comprehension difficulties than sentence in full relative clause form (Hakes and Cairns, 1970; Hakes and Foss, 1970, cited in Hakes, 1971). The result of this study indicated that, some reduced adjective clauses were easier to comprehend than some full relative clauses. As the data in the previous chapter, the comprehension task of both reduced form of adjective clauses were in easy group, while some full adjective clauses were in the difficult group.

5.3 Effects of First Language to Second Language

The study apparently revealed the significant role of one's native language over a second language. According to Choi (2005) who argued that the thinking process of the subjects when comprehending the meaning of the sentences were based on their first language (L1) before converting to a second language (L2). Their thinking process was a direct result of their translation performance (Choi, 2005). Likewise, Upton (1997) pointed out that the translation of ESL using first language as a means of understanding and producing second language is a common cognitive strategy for ESL learners (Upton, 1997).

Similarly, the subjects obviously comprehended the sentence based on their first language before reversing to second language. The translation strategy used by the subjects indicated that their first language extremely influenced their translation performance considering from word order style. The result of this study presented some examples of thinking process which affected the subjects' translation. For example, sentence no. 3: noun clause functions as a subject introduced by "that" in the sentence "That her American friend does not understand English makes us astonished", ที่เพื่อนชาวอเมริกันของเธอไม่เข้าใจภาษาอังกฤษนั้นทำให้เราประหลาดใจ".

The data showed wrong translation as "เพื่อนชาวอเมริกันของหล่อนคนนั้นไม่เข้าใจ ภาษาอังกฤษ มันทำให้เรารู้สึกประหลาดใจ" which found that subject comprehended "that" as "คนนั้น" instead of "ที่". Therefore, the subjects translated this sentence based on their first language (L1) comprehension which they were more familiar with when using the word "คนนั้น" for "that". The results support Altarriba and Mathis (1997) who found that second language learners primarily accessed the meanings for second language words (L2) through their own language (L1) and directly linked to L2 later on (Altarriba & Mathis, 1997). Also, Juffs (1998) found that ESL speakers were very sensitive to complex information when parsing a sentence in different structure from their first language (Juffs, 1998).

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5.4 Conclusion

Based on the results of this study, it can be concluded that comprehension problems that students have with complex sentences were confusing of complex structure, inability of indicating main clauses or subordinate clauses, word to word translation without comprehending the whole sentence, and comprehending sentences based on their first language. The most problematic complex sentence structure for the subjects, English major students of Sisaket Rajabhat University, were reduced adverbial clause functioning as a cause and effect modifier, followed by adverbial clause functioning as a cause and effect modifier introduced by "since", adjective clause whose subordinator is "whose" modifying an NP in the object position, and adjective clause whose subordinator is "that" modifying an NP in the subject position, respectively. This study aimed to investigate the problem in comprehending complex sentences focusing on the structure. Therefore, the result and discussion were emphasized on the difficult group and the difficulties that could answer the research questions. Other grammatical aspects would not be indicated. However the researcher detected some errors revealing the subjects' translation that could be a guideline for further study, such as 1) giving incomplete meaning which made some misunderstanding caused from insufficient detail, 2) giving unnecessary detail over original meaning which somehow change or distort the whole meaning, 3) confusing indicated of active and passive voice which could alter sentence structure, and 4) indicating wrong time of certain tense which conveyed meaning to the wrong period of time.

Finally, the researcher hopes that this research study provides enough crucial issues of problems in comprehending complex sentences. The researcher wishes that the finding can lead to improvement lead to improvement in reading complex English sentences and in teaching English reading in general. 61

5.5 Limitations of the study

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The results of the study cannot be generalized to other second language learners due to the limited number of the subjects, and the focus group is only English major students of Sisaket Rajabhat University. Also, the 30 complex sentences containing in the test were only one sentence of a kind.

5.6 Recommendations for further study

Due to the limitations above, further studies related to this area should be conducted with the larger number of subjects in order that the results of the study can be generalized. In addition, different groups of subjects should be considered to find out whether they still encounter the same difficulties in comprehending these 30 structures of complex sentences.

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APPENDIX

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Test of Complex Sentences Comprehension

Instruction: Underline subordinate clause and translate each complex sentence into Thai. (1 hour)

1)	What happened to those people last year will never be forgotten.	happened people be forgotten	เกิดขึ้น ผู้คน ถูกลืมเลือน
2)	Why they left home to a faraway country is really suspicious.	left faraway country suspicious	จากไป ถิ่นที่อยู่ห่างไกล น่าสงสัย
3)	That her American friend does not understand English makes us astonished.	American understand astonished	ชาวอเมริกัน เข้าใจ ประหลาดใจ
4)	I cannot tell anyone when I will quit this boring job.	anyone quit boring	ใครๆ ลาออก น่าเบื้อ
5)	Mark awfully wonders who is standing in front of his house.	awfully wonders in front of	อย่างมาก สงสัย ตรงข้างหน้า
5)	I cannot remember how I got that rare luxury European car.	cannot rare luxury	ไม่สามารถ หายาก หรูหรา
7)	I paid attention to what little boy was trying to say.	paid attention	ให้ความสนใจ
3)	African refugees live in where the government limitedly prepared for them.	refugees government prepared	ผู้ลี้ภัย รัฐบาล จัดเครียม
)	We strongly believe Jim will be our class president this semester.	strongly believe class president semester	เชื่ออย่างเด็มที่ หัวหน้าชั่น ภาคเรียน
0)	The driver who took me to the airport yesterday was friendly.	airport yesterday friendly	สนามบิน เมื่อวานนี้ เป็นมิตร
1)	All projects which we planned to work on vacation have failed.	projects planned vacation	แผนการ วางแผน ช่วงปิดภาคเรียน
2)	The furniture that is kept neatly in the storeroom is mine.	neatly storeroom mine	อย่างเป็นระเบียบ ห้องเก็บของ ของฉัน
3)	This is the place where the ancients keep their precious jewelry.	ancients	คน โบราณ

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14)	I remember that day when my house was hit by tornados.	remember hit tornados	จดจำ โดนปะทะ พายุทอร์นาโด
15)	I know these people whose ancestors emigrated from a wilderness area.	ancestor emigrated wilderness area	บรรพบุรุษ อพยพ ถิ่นทุรกันดาร
16)	Amy is the woman about whom I told you the other day.	woman other day	ผู้หญิง เมื่อวันก่อน
17)	Bobby knows the story to which you and I listened last night.	story listened	เรื่องราว ฟัง
18)	The letter Tom mailed from South Korea on Tuesday reached me yesterday.	mailed South Korea reached	ส่ง เกาหลีใด้ มาถึง
19)	The apartment James and his close friend live is very huge.	apartment close friend huge	ห้องเช่า เพื่อนสนิท ใหญ่โต
20)	The student punished in front of the classroom yesterday is absent today.	punished classroom absent	ลงโทษ ชั้นเรียน ไม่มาเรียน
21)	The man winning the first prize lottery last month died last night.	winning first prize	ถูกรางวัล รางวัลที่หนึ่ง
22)	I fell asleep while the teacher was lecturing in the class.	fell asleep lecturing	หลับลง บรรยาย
23)	Delivering the pizza to my steady customer, I accidentally saw Sam.	Delivering steady accidentally	นำไปส่ง ขาประจำ โดยบังเอิญ
24)	Kate hates whisky because she is severely allergic to alcoholic drinks.	whisky severely allergic	เหล้าวิสกี้ อย่างรุนแรง แพ้
25)	Since you are the most excellent officer, you should be promoted.	excellent officer promoted	ยอคเยี่ยม พนักงาน เลื่อนตำแหน่ง
26)	Fred works as a cook although he is not interested in food.	cook interested	พ่อกรัว สนใจ
27)	Whereas Mary is rich and good looking, John is poor and ugly.	whereas good looking	ในทางตรงกันข้าม หน้าตาดี
28)	I will go swimming tomorrow whether it will be cold or not.	whether	ไม่ว่าหรือไม่

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29) If you want to go on vacation, you must save money.	go on vacation	ลาหยุดพักผ่อน
	save	เก็บเงิน
30) Being unable to afford a cheap car, she bought a bicycle.	unable	ไม่สามารถ
, , , , , ,	afford	ซื้อได้
	cheap	ราคาถูก

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