

AN INVESTIGATION OF ENGLISH READING PROBLEMS OF THAI 12<sup>TH</sup>-GRADE  
STUDENTS IN NAKHONRATCHASIMA EDUCATIONAL REGIONS 1, 2, 3, AND 7

A THESIS

BY

NONGNAT CHAWWANG

Presented in partial fulfillment of the requirements for the

Master of Arts Degree in English

at Srinakharinwirot University

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AN ABSTRACT

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Nongnat Chawwang. (2008). *An Investigation of English Reading Problems of Thai 12<sup>th</sup>-Grade Students in Nakhonratchasima Educational Regions 1, 2, 3, and 7.*

Thesis, M. A. (English). Bangkok: Graduate School, Srinakharinwirot University.

Advisor Committee: Dr. Saiwaroon Champavan, Dr. Saengchan Hemchua.

This study aimed to investigate English reading problems of Thai 12<sup>th</sup>-grade students in educational regions 1, 2, 3, and 7 in Nakhonratchasima, in the academic year 2006. The participants were composed of 840 students studying in grade 12, and 420 students were from science program and 420 students were from arts program. The participants were asked to take a reading test to test their English reading ability. The test was divided into three parts: (a) sentence structure, (b) vocabulary, and (c) reading comprehension. Percentage of students passing the test was used to determine the participants' reading ability. It was found that the reading ability of the participants in the three areas of sentence structure, vocabulary, and reading comprehension was at a low level. Most of them (over 70% of all participants) were unable to give the correct answers on the test. Therefore, the results of the study revealed that they had problems in all three areas of the reading test: (a) sentence structure, (b) vocabulary, and (c) reading comprehension.

In testing the differences in English reading problems among the science students and the arts students concerning sentence structure, vocabulary, and reading comprehension, it was found that 30% of the science and arts students gave the correct answers. That is, most of them (over 70% of both science and arts students) had problems in all three areas. The reading ability of the science students and of the arts students was at a low level. It can be concluded that there were no differences in reading ability between students in the science and the arts groups.

การสำรวจปัญหาการอ่านภาษาอังกฤษของนักเรียนไทยชั้นมัธยมศึกษาปีที่ 6 เขตพื้นที่การศึกษา  
นครราชสีมา เขต 1, 2, 3, และ 7

บทคัดย่อ  
ของ  
นางค์นาถ ชาววัง

เสนอต่อบัณฑิตวิทยาลัย มหาวิทยาลัยศรีนครินทรวิโรฒ เพื่อเป็นส่วนหนึ่งของการศึกษา  
ตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต สาขาวิชาภาษาอังกฤษ  
พฤษภาคม 2551

นงศ์นาถ ชาววัง(2551). การสำรวจปัญหาการอ่านภาษาอังกฤษของนักเรียนไทยชั้นมัธยมศึกษาปี

ที่ 6 เขตพื้นที่การศึกษานครราชสีมา เขต 1, 2, 3, และ 7 ปรินญาณิพนธ์ ศศ.ม.

(ภาษาอังกฤษ). กรุงเทพฯ: บัณฑิตวิทยาลัย มหาวิทยาลัยศรีนครินทรวิโรฒ.

คณะกรรมการควบคุม: อาจารย์ ดร. สายวรุณ จำปาวัลย์ อาจารย์ ดร. แสงจันทร์ เหมเชื้อ

การวิจัยครั้งนี้มีจุดประสงค์เพื่อสำรวจปัญหาการอ่านภาษาอังกฤษของนักเรียนชั้น

มัธยมศึกษาปีที่ 6 เขตพื้นที่การศึกษานครราชสีมา เขต 1, 2, 3, และ 7 ปีการศึกษา 2549 กลุ่ม

ตัวอย่างประกอบด้วยนักเรียนระดับชั้นมัธยมศึกษาปีที่ 6 จำนวน 840 คน โดยนักเรียน 420 คนมา

จากแผนการเรียนวิทยาศาสตร์ และนักเรียน 420 คนมาจากแผนการเรียนศิลป์-ภาษา นักเรียนทำ

แบบทดสอบการอ่านเพื่อวัดความสามารถในการอ่านภาษาอังกฤษ โดยแบบทดสอบแบ่งเป็นสาม

ด้าน คือ ด้านโครงสร้างประโยค ด้านคำศัพท์ และด้านความเข้าใจในการอ่าน ความสามารถในการ

อ่านของนักเรียนวัดจาก เปอร์เซนต์ของนักเรียนที่ทำข้อสอบผ่าน ผลการวิจัยพบว่า ความสามารถ

ในการอ่านของนักเรียนทั้งสามด้าน อันประกอบด้วย ด้านโครงสร้างประโยค ด้านคำศัพท์ และด้าน

ความเข้าใจในการอ่าน อยู่ในระดับต่ำ นักเรียนส่วนใหญ่ (มากกว่า 70%) ไม่สามารถตอบข้อถูก

ผลการวิจัยจึงแสดงให้เห็นว่า นักเรียนมีปัญหาการอ่านทั้งสามด้าน คือ ด้านโครงสร้างประโยค ด้าน

คำศัพท์ และด้านความเข้าใจในการอ่าน

ในการทดสอบความแตกต่างของปัญหาทางการอ่านภาษาอังกฤษของนักเรียนแผนการเรียน

วิทยาศาสตร์ และแผนการเรียนศิลป์-ภาษา ทั้งสามด้าน อันประกอบด้วย ด้านโครงสร้างประโยค ด้าน

คำศัพท์ และด้านความเข้าใจในการอ่าน พบว่าเพียง 30%ของนักเรียนแผนการเรียนวิทยาศาสตร์และ

แผนการเรียนศิลป์-ภาษา เท่านั้นที่สามารถตอบคำถามของข้อสอบได้ถูกต้อง จึงเห็นได้ว่านักเรียนส่วนใหญ่

(มากกว่า70%) มีปัญหาในการอ่านทั้งสามด้านเหมือนกัน จากผลการวิจัยสามารถสรุปได้ว่า

ความสามารถในการอ่านทั้งสามด้านของนักเรียนแผนการเรียนวิทยาศาสตร์ และแผนการเรียนศิลป์-

ภาษา อยู่ในระดับต่ำ และความสามารถทางการอ่านของนักเรียนทั้งสองกลุ่มไม่แตกต่างกัน

The thesis titled

“An Investigation of English Reading Problems of Thai 12<sup>th</sup>-Grade Students in  
Nakhonratchasima Educational Regions 1, 2, 3, and 7”

by

Nongnat Chawwang

has been approved by The Graduate School as partial fulfillment of the requirements  
for the Master of Arts degree in English of Srinakharinwirot University.

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## ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my master's thesis advisor, Dr. Saiwaroon Chumpawan, for her helpful suggestions, valuable time and patience in reading and editing my language.

My deep appreciation also goes to Dr. Tipa TepAugkarapong, for her helpful comments, assistance, kindness, and valuable guidance. I would like to extend my thanks to Dr. Saengchan Hemchua, my co-advisor for her kindness, valuable comments, suggestions, warm encouragement and patience of reading the research. I feel grateful to Dr. Wanlapa Thaijinda for her useful comments and suggestions. I am very grateful to Dr. Supaporn Yimwilai for her useful comments and suggestions.

My special thanks go to the English teachers at 12<sup>th</sup> –grade in the educational regions 1, 2, 3, and 7 for allowing their students to participate in this research.

I sincerely thank to Mr. Regent Lamoureux for his proofreading, useful comments and encouragement.

I am deeply grateful to all of my friends at Srinakarinwirot University for their kind assistance and understanding.

Finally, I would like to acknowledge my indebtedness to my mother and all my relatives for their endless love and encouragement. Unforgotten, I would like to give a special thank to Mr. Teerasak Tudalajitti, my husband, who encouraged me to fight with every problem occurring during doing this thesis. He had never tired of hearing every problem and encouraged me to fight with every struggle.

Nongnat Chawwang



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# CHAPTER I

## THE PROBLEM AND ITS BACKGROUND

### Introduction

Thai people require knowledge of English to communicate with foreigners and to gather information from textbooks, newspapers, journals, and Internet websites which mostly come from the English-speaking countries. Rapidly developing technology also leads Thai people to use English as a tool for accessing modern technology. Moreover, English is increasingly important in Thailand because of the proliferation of international trading and multinational companies. Therefore, to prepare Thai people for the world of business and technology, English study is included in Thailand's national curriculum. In the latest English curriculum under the Nation Education Act of 2002, currently in use, Thai students are required to study English from grades 1 to 12 (Ministry of Education, 2002).

Four language skills are used to attain the English language proficiency: listening, speaking, reading, and writing. Reading is the most important because it is the chosen instrument to acquire knowledge. Various English printed materials are available for Thai people to read while opportunities to speak, listen, and write are not prevalent in their daily life (Phupradid, 2003). It was found in a study conducted by Sucompa (1998) that reading was the most important skill for workers in the tourism industry. They needed to read travel documents such as incoming passenger cards, travelers' statements, and customs declarations. Reading notices, signs, correspondence, and E-mail is also necessary for them.

Chantawimol, GromKoon, and Tawitchadwittayakul (1998) investigated the attitude of Thai people towards English in everyday life and found that doctors, engineers, teachers,

and the hotel business people frequently needed reading skills to read newspapers, academic textbooks, and journals. Therefore, reading is crucial for Thai people in various careers. Besides, reading is very essential for students studying English as a Foreign Language (EFL) because most textbooks and the sources of science knowledge and information on higher technology are published in English. As a consequence, reading is the foundation of advanced studies which require reading abilities to access both textbooks and other reading materials outside the classroom (Roe, Stoodt, & Burns, 1998).

#### *English as a Second or Foreign Language (ESL/EFL) Students' Reading Problems*

Most ESL/EFL students have problems in reading English texts. Limited knowledge of vocabulary and of sentence structure is regarded as the main problem (Gunning, 2002). Knowledge of vocabulary is very important for helping students to understand the complex materials such as textbooks which contain many concepts and technical vocabulary (Hayes, 1991; Kinzer, & Leu, 1995).

In terms of vocabulary, the problem is involved with the word difficulties such as technical vocabulary, superordinates, synonyms, antonyms, and words with several meanings (Grave & Ryder, 1998; Nuttall, 2000). These groups of words could be obstructed the students' reading comprehension. Besides, words with several possible meanings can be problems in reading. Students need to imply meaning by guessing from sentences or context (Aebersold & Field, 1997). Similarly, Asraf and Ahmad (2003) found that the main problem encountered by ESL/EFL students was word difficulty. Therefore, in reading comprehension, word difficulty is a major problem for ESL/EFL students; that is, they could not discover the meaning of words in context.

Complex and very long sentences also cause problems in reading comprehension for students learning English as a second or foreign language. Complex sentences are sentences that contain many clauses or reduced clauses. Sentences with cohesive words such as however, because, thus, although, and furthermore are also complex (Aebersold & Field, 1997). In addition, complex noun groups, nominalizations, coordinating conjunctions, participial phrases, and prepositional phrases are the main causes of problems in reading comprehension of the students because they render texts complex and difficult to understand (Nuttall, 2000).

It is apparent that word difficulty and complex structures of language create reading problems for ESL/EFL students. The lack of knowledge of those two areas interferes with the reading success of students. Therefore, in second language or foreign reading, students need both vocabulary knowledge and linguistic knowledge (Day & Bamford, 1998).

*Reading Problems Particular to Thai Students.*

Thai students are not successful in reading, and their reading ability is unsatisfactory (Pumirat, 1992). Longsombun (1999) conducted a study to investigate the English achievement of Prathomsuksa 6 students in Chonburi, Nonthaburi, Samutprakarn, Samutsakorn, and Prathomtani and found that the students' reading ability was below the minimum criterion. In addition, Champaruang (1999), Purisodom, (1999), Thani (1999), and Yongsathien, (1999) carried out research studies to investigate the English achievement of Mathayomsuksa 6 students. They all came to the same conclusion and found that the students' reading ability was at a low level. Besides, Ponmanee and Sinsuwan (2001) conducted a study to examine the needs and problems in English usage of 60 graduate students in teaching Thai and social science compared with students in teaching English.



Questionnaires and a reading test were used as research instruments. It was found that students in all three fields of study needed all four English skills, and poor reading was the main problem of these students.

Additionally, it was found that Thai students have problems with vocabulary and sentence structure when reading texts, so they could not comprehend what they have read. The following research indicated that Thai students' reading ability is at a low level. A study by Songsiri (1999) involving 12<sup>th</sup>-grade students found that their English reading ability was very disappointing. Students had poor skills in vocabulary, syntax, and grammar, and they lacked the ability to guess meaning from the context which was considered as the causes of the problems in skimming for main ideas, scanning for details, making inferences, finding the reference, restating, sequencing facts from opinions, and determining the author's mood and tone. Also, the results of a study conducted by Adunyarittigun (2002) found that the inadequate knowledge of language structure and vocabulary was the main cause of the participant's difficulties to predict the meaning in context. In addition, Chuenta (2002) found that problems in reading of the participants were inability to grasp main idea, inability to read quickly due to limited vocabulary, inability to summarize the text, and the lack of appropriate reading strategies. Similarly, Tanghirunwat (2003) found that Thai engineers had problems with vocabulary of other technical fields, new vocabulary stemming from new technology, and technical vocabulary in the telecommunication field.

As is seen in the above studies, Thai students have problems with vocabulary and sentence structure when reading texts. They have inadequate knowledge of vocabulary and sentence structure. These problems affect reading comprehension. They could not comprehend what they have read because they lack the ability to understand the texts.

*Reading Problems Particular to Science and Arts Students.*

According to the Ministry of Education, the secondary school has been allowed to provide two programs of the study, science and arts, to the upper secondary school students. The present study aims to analyze the differences in reading ability between students in the science program and the arts program. It will be useful for teachers at this level to find teaching methods properly when they know what reading problems of students at the two programs are. To understand science and arts students' reading problems, the previous studies of these two groups should be used to explore whether the program affects their reading ability.

Wongsuwan (1992) found that reading ability of science students and arts in sentence structure, vocabulary in context, and paragraph organization was at an average level. It was also found that there was no significant difference between mean scores gained by science and arts students in vocabulary in context, but in sentence structure and paragraph organization there was significant difference between achievements of the two groups.

In addition, Reanjaroen suk (1999) studied English vocabulary proficiency of 615 first-year university students from the Faculty of Medical Science, the Faculty of Arts, and the Faculty of Science. It was found that the three groups of the participants had vocabulary problems. Subphadoongchone (2000) found that the science students' mean score on the lexical guessing tests was low. This indicated that science students' vocabulary ability was not proficient. Furthermore, the results from questionnaire revealed that the problems in guessing meaning of words from context were derived from limited vocabulary knowledge and lack of grammatical knowledge.

Intarasombat (2002) studied the effect of vocabulary development of English reading comprehension. The subjects were 40 students in the science program. The instrument used in this study consisted of vocabulary test and reading comprehension test. Vocabulary test was used to measure Mathayomsuksa 4 students' knowledge of vocabulary. Reading comprehension test was used to measure the students' reading comprehension. It was found that the students' mean score in the vocabulary test and reading comprehension test was low. This indicated that the students had limited vocabulary knowledge and this area caused them problems of English reading comprehension.

Mingsakoon (2003) studied vocabulary learning strategies of Mathayomsuksa 6 students in science and arts programs. The subjects were 129 students. There were 78 students from the science program and 51 from the arts program. Vocabulary test was also used to determine students' ability in vocabulary. It was found that the science students and the arts students used reading strategies effectively when reading texts. There was no significant difference in vocabulary ability between the two groups; however, the results of the study revealed that the students had vocabulary problems.

In conclusion, science students and arts students had similar problems in reading. They had problems in sentence structure; that is, they could not understand the sentence clearly. Moreover, limited vocabulary knowledge also affects comprehension in reading.

#### Statement of the Problem

Insufficient knowledge of vocabulary and sentence structure causes problems of reading comprehension. Vocabulary knowledge is used to guess word meanings while sentence structure knowledge is used to determine word order in sentences and patterns of language. The researcher realizes that students' reading problems concerning vocabulary and

sentence structure are regarded as a barrier to understand texts. These two areas affect their studying at higher level which requires skillful reader to read various English textbooks and other materials.

Few research studies have been done to investigate students' reading problems in the areas of sentence structure, vocabulary, and reading comprehension, especially in Nakhonratchasima. Therefore, reading problems of 12<sup>th</sup>-grade students in sentence structure, vocabulary, and reading comprehension were focused in this study. Furthermore, the present study aimed to analyze the differences in reading ability between students in the science program and the arts program.

#### Research Questions

This study aims to answer the following questions:

1. What reading problems do 12<sup>th</sup>-grade students in both science and arts programs in Nakhonratchasima have?
2. Are there any differences in reading problems between the science and arts students in Nakhonratchasima?

#### Significance of the Study

The findings obtained from this study providing information about Thai students' reading problems in relation to sentence structure, vocabulary, and reading comprehension. This information could be used as a guideline for Thai teachers to develop techniques to teach reading in order to improve students' reading ability. The study also helps Thai teachers to better understand their students' reading problems and to find an appropriate way for teaching reading.

## Methodology

### *Selection of Schools*

At present, Nakhonratchasima has increasingly developed its industrial and tourism sectors. In addition, the governor of the province has successfully campaigned to attract the visitors traveling to the province in order to stimulate the tourism and a lot of travelers now visit Nakhonratchasima. These developments have steadily increased the great deal of the outcomes of the province (Nakhonratchasima Provincial Operation Center, 2006). Schools in Nakhonratchasima are expected to prepare their students for university studies or for factory work in the surrounding areas. These students will become the human potential for the development and management of both the manufacturing and tourism industries of the province. Thus, they need the ability to read materials for their higher studies or to read documents at their workplace. Therefore, the schools in Nakhonratchasima were selected to participate in this study.

Nakhonratchasima is divided into seven educational regions, the widest educational area in our country. Half of these seven educational regions were randomly selected to participate in this study, so four of them were the selected for this study. They were educational regions 1, 2, 3, and 7. Then, the school lists of these regions were studied and 62 secondary schools were found. Of these, 20 of them had neither a science nor an arts program, so they were excluded from this study. Of the remaining 42 schools, half of them were randomly selected to participate in this study. These 21 schools were:

- (a) Ratchasimawittayalai, (b) Suranareewittaya, (c) Boonluavittayanusorn,
- (d) Koratpittayakom, (e) Nongboonnakpittayakom, (f) Nongboonnakprasongwittaya,
- (g) Huay-talangpittayakom, (h) Orapimwittaya, (i) Banmaipittayakhom, (j) Khonburi,

(k) Paktongchaiprachaniramid, (l) Soengsang, (m) Nonsomboonwittaya,  
(n) Wangnumkhewpittayakom, (o) Sukpiboonviriyawittaya, (p) Sagarattawutsuksa,  
(q) Somdedprateerayanamunee, (r) Mabtagopittayakhom, (s) Nikompimaisuksa,  
(t) Pimaidumrongwittaya, (u) Chumpoungsuksa.

#### *Selection of Participants*

The participants in this study were students studying in grade 12 in the second semester of the academic year 2006 who had studied English for at least 10 years. Their language ability and proficiency were grade in four levels: (a) Preparatory-Level, (b) Beginning-Level, (c) Developing-Level, and (d) Expanding-Level (Ministry of Education, 2002). Therefore, their reading ability was sufficiently developed for the purpose of this study. Forty students from each of 21 schools were selected at random with an equal number of science and arts students. Therefore, a total number of 840 students participated in this study.

#### *Instrumentation: Test*

The instrument used in this study was a test that aimed to investigate the participants' reading problems concerning sentence structure, vocabulary, and reading comprehension. The researcher studied the areas of the investigation in this study and found that the test was developed by Wongsuwan (1992), and could be used for the investigation of the English reading problems of Thai 12<sup>th</sup>-grade students. The researcher was granted permission by the test developer to use this test in this study. The reliability of the test stands at 0.85 (Wongsuwan, 1992), and consists of 50 multiple-choice questions to be answered within two hours. The following areas were investigated:

1. Sentence structure: The students were measured the following areas:

Complex noun group

Nominalization

Coordination

Subordination

Participial phrase - Present participle

Participial phrase - Past participle

Prepositional phrase

Introductory subject

Definition

Reference

Substitution

Elliptical expression

Signal word for sequential order

Exemplification

Signal word for additive

Signal word for adversative

Signal word for causal

Signal word for conclusion

(Nuttall, 2000)

2. Vocabulary

The students must be able to guess meaning of words by using context.

3. Comprehension reading ability: The students were measured the following areas:

Paragraph organization:

Topic

Getting main idea

Identifying inference / implication

Prediction

Sequential organization of the paragraph in the passage

The reliability of the test was 0.85 (Wongsuwan, 1992). Therefore, the test could be used in the study for the investigation.

#### *Data Collection Procedures*

The study was conducted in the second semester of the academic year 2006 with 840 students studying in grade 12 in the science and arts programs at 21 selected different schools. The participants were asked to take the test after they took the mid-term examination offered by their schools.

#### *Data Analysis*

Percentage of students passing the test was used to determine the participants' reading ability. They were classified that below 50 was problem area.

#### Limitation of the Study

The subjects participating in this study was limited to 840 students studying in grade 12 in the second semester of the academic year 2006. They were selected from 42 schools which contained both science and arts programs. Therefore, half of them, the 21 schools were selected to participate in this study. They were (a) Ratchasimawittayalai, (b) Suranareewittaya, (c) Boonluavittayanusorn, (d) Koratpittayakom,



- (e) Nongboonnakpittayakom, (f) Nongboonnakprasongwittaya,  
(g) Huay-talangpittayakom, (h) Orapimwittaya, (i) Banmaipittayakhom, (j) Khonburi,  
(k) Paktongchaiprachaniramid, (l) Soengsang, (m) Nonsomboonwittaya,  
(n) Wangnumkhewpittayakom, (o) Sukpiboonviriyawittaya, (p) Sagarattawutsuksa,  
(q) Somdedprateerayanamunee, (r) Mabtagopittayakhom, (s) Nikompimaisuksa,  
(t) Pimaidumrongwittaya, (u) Chumpoungsuksa in Nakhonratchasima, in Thailand.

#### Organization of the Study

Chapter I of this study deals with its background and specific problems. Chapter II introduces a review of the related literature and research studies relevant to the problem of the study. Chapter III details research methodology. Chapter IV presents the results, and Chapter V offers a discussion of these results, and recommendations for further studies.

## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

This chapter provides information and presents the theoretical and research literature related to the present study. The review of the related literature is divided into three main parts:

1. English as a Second or Foreign Language (ESL/EFL) students' reading problems
2. How to help students understand the reading materials
3. Studies related to students' reading problems

The first part concerns ESL/EFL students' reading problems. The second part presents the reading methods that could help ESL/EFL students understand reading materials better. The final part discusses the studies related to students' reading problems which include ESL/EFL students' reading problems and the particular reading problems of students studying in science and arts programs.

### English as a Second or Foreign Language (ESL/EFL) Students' Reading Problems

In reading a text, students meet with many problems obstructing their reading comprehension. For example, the problems related to background knowledge, cultural knowledge, and knowledge of text type. Background knowledge is the students' prior knowledge or knowledge of the world. If a reader lacks prior knowledge in reading a text, he cannot follow and understand it because he does not know what the text is about. A reader uses background knowledge to integrate new information from a text into his prior information. In addition, cultural differences affect reading comprehension. An unfamiliar cultural context and distinguishing between content knowledge of culture and knowledge of vocabulary cause problems in reading, because the reader does not clearly understand the other culture. In addition, an inadequate knowledge of text type is a problem in reading texts. The text type such as newspaper articles, fairy tales, and business letters, if the reader does not know what kind of the text, he cannot follow and understand what the text is about. A reader can understand a text if he is familiar with the text type (Alderson, 2002).

However, limited knowledge of vocabulary and of sentence structure is regarded as the main problem for students reading texts (Gunning, 2002). If the students lack vocabulary and sentence structure knowledge, they have problems in reading English texts. The lack of knowledge of both vocabulary and sentence structure interferes with the reading success of students. Therefore, in second or foreign language reading, students need both vocabulary knowledge and linguistic knowledge (Day & Bamford, 1998). Knowledge of vocabulary is very useful for reading comprehension because it is used to determine word meaning in reading a text. Also, knowledge of sentence structure is necessary for comprehension. It is the knowledge of sentence syntax or word order. A reader uses it to determine the meaning of sentences and the grammatical function of a word.

*English as a Second or Foreign Language (ESL/EFL) Students' Vocabulary Problems*

In terms of vocabulary, the problem involves difficulties with words. These difficulties include problems with technical vocabulary, superordinates, synonyms, antonyms, and words with several meanings (Grave & Ryder, 1998; Richardson & Morgan 2003; Nuttall, 2000). Technical vocabulary is made of words used for specific purposes, and it creates reading problems because it is difficult to understand. Teachers should teach their students to understand the concept of these words when reading a text. Next, superordinates are the words with a meaning that is too general; for example, the word “building” can mean a house, a school, a factory, a cinema, or a hotel. The problem is that the reader may conclude that these words have the same meaning because he could not classify what differences the word “building” offers (Nuttall, 2000). In addition, synonyms are used to provide explanations with a simple and common word in the sentence. The problem is that when the writer uses different words or a similar meaning to refer to and to explain the meaning of a word in a sentence, the reader cannot understand this meaning because he has poor vocabulary knowledge. Here is an example:

The *house* stood at the end of a quiet neat street. The *little dwelling*, however, looked neglected and cheerless (Nuttall, 2000, p. 91).

In this example, *house* and *dwelling* have the same meaning. The careless reader may fail to understand.

The following examples show difficulties with synonyms:

The lecture was so *obscure* that the students labeled it *unintelligible*.

There were *audacious comments* and *attacks* on prominent leaders of the opposition (Richardson & Morgan, 2003, p. 257).

In the first sentence, the author uses a comparison to explain “obscure.” In the second sentence, the word “attacks” helps the readers to understand “audacious comments.” The poor reader may fail to understand these words.

Antonyms are words using the opposite meaning to help the reader understand the meaning of words and sentences; however, the poor reader may fail to understand this. And here are examples:

The young swimmer did not have the *perseverance* of her older teammates and *quit* at the halfway point in the race.

All this is rather *optimistic*, though it is better to err on the side of hope than in favor of *despair* (Richardson & Morgan, 2003, p. 257).

Apart from these difficulties, words with several meanings are also regarded as a reading problem. They are difficult to understand, and for this reason, the readers need to read and think carefully to find a close meaning or other possible meanings. Therefore, words with several meanings could interfere with the students’ reading comprehension (Nuttall, 2000).

In addition, Gunning (2002) maintains that problems with vocabulary in reading include: (a) the lack of basic decoding skills, (b) the lack of academic vocabulary, (c) limited background, (d) failure to read for meaning, (e) the lack of strategies or failure to use strategies, and (d) limited language skills.

First, the reader who has difficulty with decoding skills normally has problems with word recognition, because decoding helps readers retain word recognition and guess word meaning. If a reader lacks the ability to recognize words, his comprehension will be unclear. Second, the more difficult and more abstract side of a text affects a reader with limited

academic vocabulary. He has problems to understand it. Teachers should teach their students to predict meaning by using context clues. Third, a reader who has limited background normally has reading comprehension problems, because he does not know what the text is about. Readers should practice reading books of their level of language (Gunning, 2002). Fourth, the failure to read for meaning includes the lack of ability to decode. A reader who has problems with pronouncing words accurately also faces failure to read for meaning. He does not understand the text clearly. To solve this problem, he should be taught reading comprehension strategies that would help him become aware of understanding. Reading comprehension strategy; for example, prediction strategy, it is a strategy that reader attempts to guess meaning of vocabulary and the content of a text. A reader always learns how to guess the meaning of a text, the event in a story, or the kind of information it deals with. He uses this strategy effectively on the basis of what he knows. Predictions can also determine a reader's purpose in reading. Additionally, the ability to make predictions depends on the reader's background knowledge. Fifth, the lack of strategies or failure to use strategies refers to a reader who fails to adapt his strategies when he reads different kinds of texts. Lastly, limited language skills are regarded as inadequate knowledge of vocabulary and sentence structure. A reader who has limited vocabulary and sentence structure knowledge may have difficulties with comprehension because the lack of knowledge of both these two areas obstructs his reading success.

#### *English as a Second or Foreign Language (ESL/EFL) Students' Sentence Structure Problems*

Complex and very long sentences also cause problems in reading comprehension for students learning English as a second or foreign language. Complex sentences are sentences that contain many clauses or reduced clauses and abstract concepts. Sentences with cohesive

words such as however, because, thus, although, and furthermore are also complex (Aebersold & Field, 1997; Graves & Ryder, 1994; Kinzer & Lue, 1995; Roe, Stoodt & Burns, 1998). Besides, complex noun groups, nominalizations, coordinating conjunctions, participial phrases, and prepositional phrases are the main causes of problems in reading comprehension of the students because they render texts complex and difficult to understand (Nuttall, 2000). To understand texts, students must also understand complex noun groups, nominalizations, coordinating conjunctions, participial phrases, and prepositional phrases. Effective reading is necessary to have the ability to understand how a text is organized and the relationship between sentences (William, 1994; O' Donnell & Wood, 2004).

It is apparent that vocabulary and complex structures of a language create reading problems for ESL/EFL students. The lack of vocabulary knowledge and linguistic knowledge interferes with the reading success of students. In reading second language materials, students need linguistic knowledge and vocabulary knowledge in order to predict the context for reading comprehension (Day & Bamford, 1998).

#### How to Help Students Understand the Reading Materials

To understand texts, students need abilities to grasp main ideas, identify supporting details, draw conclusions, and identify inferences. These areas can develop their reading comprehension.

1. Grasping main ideas. They give the overall purpose of the written piece (Johnson, 1994; Seyler, 2004). They are the most important ideas in a passage (Chen & Fang, 1996). Students have to discover the topic in order to find what the passage is about and what the writer wants to express. Then, students try to find the most important ideas (Flemming, 1997; Skidell & Becker, 1996).

2. Supporting details. They expand and support the main idea by providing examples, facts, and explanations. Students can read effectively by looking for these following strategies (Johnson, 1994; Skidell & Becker, 1996).
3. Drawing conclusions. It is an ability to conclude passages logically. Students need to know what the writer wants to express by using the information in passages (Chen & Fang, 1996).
4. Identifying inferences. It is the students' ability to infer what, in a passage, a writer does not express directly. Students must imply the passage intelligently (Chen & Fang, 1996).

In sum, the ability to grasp main ideas, to identify supporting details, draw conclusions, and identify inferences is very important for reading comprehension. These could help students understand the texts effectively.

#### *How to help Students Understand Sentence Structure*

In reading texts, students of English as a second or foreign language use context clues to help them better understand. Clues in sentences help students guess the meaning of words in context (O' Donnell & Wood, 2004). They also help them understand the function of words and grammar. Syntactic knowledge is the knowledge of sentence structure and the rules of word order (Kinzer & Lue, 1995). In addition, the knowledge of the differences in forms of texts, such as fairy tales, newspaper articles, and business letters, can guide the readers and help them anticipate the content of texts and understand the storyline (Kinzer & Lue, 1995).



In addition, Nuttall (2000) explains that to understand texts, students have to understand the syntax of:

1. Coordinating conjunctions. They include and, or, nor, but, yet, so. These words are used to connect the two ideas in the sentences. They are difficult to guess what elements are joined. Students need to understand and guess what words, phrases, or clauses are connected to these words, for example:

He looked at the child with surprise that he should know such words at his age and indignation that he should be permitted to use them (p. 82).

According to the above example, the careless reader might assume “indignation” parallels “words” or “age,” but in fact, the word “surprise” is what is paralleled. Here are these two items:

- A. surprise that he should know such words at his age
- B. indignation that should be permitted to use them

We can see that the first part of the sentence can be placed in the same position, like this:

He looked at the child with surprise that he should know such words at his age.

He looked at the child with indignation that should be permitted to use them

Thus, rewriting a sentence may help a reader to understand the text better.

2. Complex noun groups. They contain a head noun which may be modified by adjectives or other words. For example:

...good pedagogical REASON for beginning to give conscious attention to intonation in connection with utterances where there is a fairly predictable

relationship between tidy syntactic forms on the one hand and phonological forms on the other... (p. 83).

In the above example, noun groups can be very complex; the word “reason” is the head noun. The nouns “beginning,” “attention,” “intonation,” “utterances,” and “relationship” are modified by various phrases and clauses. Students should learn to understand the types of post-modifiers such as prepositional, infinitive, participial phrases, adjective clauses, nouns in apposition, and adjectives in order to understand noun groups in sentence structure and to better analyze texts.

3. Nominalizations. These are a form of nouns derived from verbs. Besides, some head nouns are related to adjectives or other complements. The following example shows that nominalizations are considered problems in reading:

The implementation of the recommendation that child allowances should be restricted to the first three children was delayed for several years (p. 83).

These groups of noun illustrate a very difficult problem in reading texts. The head nouns are “implementation,” and “recommendation.” Thus, the following two sentences can be extracted:

A. Someone recommended that child allowances should be restricted.

B. Someone implemented (the recommendation in) A. (p. 83).

4. Participles and infinitives. These words or phrases may be found in non-finite clauses and perform the function of modifiers, as in the following examples:

tools to handle the authentic spoken materials...learners invent to exemplify them speech produced spontaneously and in real time teaching materials based on them (p. 85).

Non-finite clauses are clauses in which the subjects are not expressed. For example:

One is that by describing the meaning system in terms that have general validity we provide the teacher with analytic tools to handle the authentic spoken materials, however complex, which he judges suitable for a particular learner or group of learners (p.79).

We can see here that the subject of “describing” is not expressed directly, but the reader knows that the word “we” is the subject of this sentence. On the other hand, in the following example, the subject of “beginning” needs to be inferred.

While there are certainly good pedagogical reasons for beginning to give conscious attention to intonation in connection with utterances where there is a fairly predictable relationship between tidy syntactic forms on the one hand and phonological forms on the other, a teaching program must surely visualize an eventual need to control the far more interesting cases where the relationship between the two models of linguistic organization runs counter to what, on probabilistic grounds, we would expect (p.79).

It is necessary to identify the subject of “beginning.” “Teaching program” is the subject of “beginning.” Non-finite clauses enable sentences to be long and complex.

5. Prepositional phrases. These are often parts of noun groups. A reader can notice the joining of two nouns, as in “group of learners,” “attention to intonation.”

Furthermore, he must check which word is usually paired with a preposition, such as in the phrases “acceptable to,” “provide with,” “suitable for,” “base on,” and in fixed expressions, such as “by contrast,” “to the point of...,” “in connection with,” and “on the other hand.” Readers must find which words are related to a given preposition.

They also need to look for the prepositional phrases that attach themselves and what words they modify.

6. Cohesive devices. These are tools giving consistency to an author's point of view. They connect ideas in a text, and they include pro-forms, ellipsis, and discourse markers.

Pro-forms are words such as it, our, this, those, then, one used to avoid repetition and to refer to persons, objects or ideas. Understanding pro-forms helps readers to follow an author's ideas. However, it is difficult to understand complex sentences. Students should create questions by themselves while reading in order to find the answer to pro-forms.

An ellipsis is the omission of information, which is a writing technique that is often the cause of unclear meaning, and a cause of students' reading problems. Teachers should prepare questions to ask for encouraging them to interpret sentences or passages that are omitted. Additionally, rewriting the omitted information can help students interpret elliptical information effectively.

Discourse markers are words that clarify the relationship between parts of a discourse and its author's message. There are three kinds of discourse markers: markers that signal the sequence of events, markers that signal discourse organization, and markers that signal the writer's point of view. The first group of markers defines the succession of events, and it includes words or phrases such as then, first, at once, next, the following day. The second group signals the structure of the work. They include in conclusion, that is to say, for example, to resume, and in

short. The third group of markers clarifies an author's ideas or attitude, and relationships of cause and effect. It includes additives, words like moreover and furthermore that add more ideas and information; adversatives, for example however, nevertheless, on the other hand, which introduce a contrasting idea; and casuals, such as therefore, thus, and because, among others, words or phrases that define a relationship of cause, intention, and condition.

In brief, reading comprehension needs strategies for aiding students grasp the meaning of a text. They need to understand the component of sentence structure. In addition, having knowledge of sentence structure and text type in reading texts helps them to understand the organization of texts.

#### *How to Help Students Guess the Meaning of Unknown Words*

There are several factors which are used to discover word meaning in context. The various strategies are revealed in the following paragraphs.

Lipson and Wixson (1997) suggest that when students begin to read, they define vocabulary in context. First, they must explore the titles or headings, then underline unknown words. Second, they have to find word meaning by using the context or sentences around it and relate to their background knowledge. Third, using a dictionary or asking someone can help them verify the correct meaning. Next, they write the meaning of the text for helping them understand texts easily while reading. Students should read texts again in order to ensure understanding. Next, structure of words analysis suggests that readers use prefixes, suffixes, and root words to guess the meaning of an unknown word. This strategy helps readers to read effectively (Johnson, 1994; Richardson & Morgan, 2003). In addition,

decoding helps students retain word recognition and guess word meaning. It is important for understanding a text (Wood & Bob, 1994). Furthermore, determination is used to find the meaning of a new word by guessing from the language structure, L1 cognates, and using reference materials. Students can guess word meaning by using knowledge of root or affixes in the language structure. Cognates are words from other languages but they are of the same word family as L1. Students can use the knowledge of L1 cognates to guess the meaning of the new words they face. Using reference materials like dictionaries helps discover word meaning (Schmitt, 1997). Memory strategy is used to connect a known word to a student's previous knowledge, and word groups by imagination. A new word that students encounter can be also related to their previous knowledge. Imagination helps student's knowledge to be recalled (Schmitt, 2000). Groups can be inferred to word type: nouns, verbs, adjectives, and adverbs and topic such as words about weather. In imagination, the students create pictures in their mind or draw pictures to help recall a word, phrase, or new information (Oxford, 1990). In addition, semantic mapping helps students know the concept of word meaning. They should relate new concepts to their background knowledge (Block, 2003; Crawley & Mountain, 1995; Hayes, 1991). Finally, context clue is used to guess the meaning of an unknown word in context. Vocabulary knowledge is very necessary for this strategy (Kinzer & Lue, 1995; O' Donnell & Wood, 2004; Richardson & Morgan, 2003). Using synonyms and key words leads students to construct meaning by guessing from context (Hayes, 1991). Students use knowledge of affixes, and root words to infer meaning of new words, then relate to a known word. This is the concept of word family (Lipson & Wixson, 1997). Learning to ignore difficult words can help students understand the texts being read. They need not know every word, because using context clues can guide them to

understand difficult words they encounter since in passages, there are signal words that suggest the meaning (Guning, 2002; Nuttall, 2002). Students can notice definitions, explanations through examples, synonyms, comparisons or contrasts, inferences, and the modes or tones of the writer in order to guess the meaning of words in context (Crawley & Mountain, 1995; Johnson, 1994; Richardson & Morgan, 2003).

Therefore, students need structure analysis, decoding, determine, memory, semantic mapping, and context clues in order to help them guess the meaning of words in context and understand texts clearly.

#### Studies Related to Students' Reading Problems

In this part, the previous studies that relate to English reading problems will be presented. It is divided into three categories: (a) the studies on the reading problems related to EFL/ESL, (b) the studies on Thai students' reading problems, and (c) the studies on reading problems particular to science and arts students.

#### *Studies Related to EFL/ESL Students' Reading Problems*

The previous studies of EFL and ESL reading problems are here presented.

Hayashi (1999) investigated the reading strategies and extensive reading of 100 EFL Japanese students. The instruments were reading passages selected from newspaper articles and a questionnaire that examined the participants' reading strategies. It was found that extensive reading could improve students' reading skills and vocabulary ability; however, the students had problems in reading the passages. Their reading ability stood at below satisfactory level. In addition, the results from the questionnaire revealed that the difficulties in reading comprehension involved grammar, vocabulary, and prior knowledge.

Qian (2002) investigated the relationship between vocabulary knowledge and academic reading performance. The participants were 217 students in an ESL program at the University of Toronto. The instrument used in this study was a test that aimed to investigate four types of vocabulary knowledge. First, to investigate the TOEFL reading basic for comprehension (TOEFL-RBC), a test consisting of five academic passages was used. These passages were related to biology, astronomy, geography, art history, and biography. The test consisted of multiple-choice questions that aimed to measure the participants' comprehension. Secondly, to investigate the depth of vocabulary knowledge (DVK), the test measured the three factors of synonymy, polysemy, and collocation. It consisted of 40 questions. "Depth of vocabulary knowledge relates to how well one knows a word" (Quia, p.515). Third, to investigate the vocabulary size (VS), the test comprised five parts in order to measure the level of word knowledge. The breadth of vocabulary knowledge means the size of vocabulary or the number of words meaning that one knows. Lastly, the TOEFL Vocabulary Item Measure (TOEFL-VIM) aimed to measure the knowledge of synonyms. The test made of multiple-choice questions expected students to choose words with similar meanings. It was found that DVK, VS, TOEFL-VIM, and TOEFL-RBC were interrelated with reading comprehension. The depth of vocabulary knowledge and the size of vocabulary were important for comprehension in reading academic texts. Vocabulary was a crucial factor to predict the context and main factor for reading comprehension. For ESL speakers, depth and breadth of vocabulary knowledge play an important role for reading comprehension. It can thus be concluded that vocabulary is important to assess students' reading comprehension.



Asraf and Ahmad (2003) studied the English language development and the reading habits among students in rural schools through the Guided Extensive Reading program. The participants were three classes of 7<sup>th</sup>-grade students and one class of 9<sup>th</sup>-grade students in Malaysia. The data were collected by classroom observations every week until the end of the four-month course of the first school term. Videotapes and teachers' diaries were used to analyze whether the participants' English language developed or not. It was found that the extensive reading program benefited and developed the positive attitudes of the students toward reading in English; furthermore, it increased their English reading proficiency. However, the main problem encountered by the students in rural schools was the lack of vocabulary knowledge. It was a difficult area, because the participants could not guess the meaning of words in the context.

Nassaji (2003) conducted a study to examine the success of 21 intermediate ESL learners in inferencing when they encountered unknown words. The instrument used in this study was a reading passage which contained 374 words, 10 target words were used to focus on inferencing strategies. The target words consisted of four nouns, four verbs, and two adjectives. It was found that the intermediate ESL learners were not very successful at inferencing word meanings from context in a reading text. The unsuccessful inferences of the students (over 55% of the participants) could not infer the meaning of the new words from context completely. Less than 40% of the participants could be successful.

Paribakht (2004) studied the role of grammatical knowledge in inferencing word meanings. The participants were 10 intermediates level ESL students. The instrument was a reading passage on a topic of "Acid Rain." After the participants read the passage, the think-aloud protocols were used to collect data by questioning task and summarizing task. The

question task required the participants to read the text and answer the comprehension questions, and then they were asked if they encountered unfamiliar words, and if so, what strategies they used. The summary task involved reading the text, and summarizing each paragraph. Then, they were asked the same questions as the question task. It was found that when the students encountered unfamiliar words while reading they used strategies such as ignored the unfamiliar words, used dictionary, and attempted to infer the meanings of the words. Inferencing was used more than other strategies (about 80%). Furthermore, they usually used L2, and L1 linguistic knowledge such as sentence-level grammatical knowledge, word morphology, punctuation, minor linguistic sources (discourse, homonymy, word association, and cognates), and extra linguistic sources (world knowledge) in inferencing the meanings of the unfamiliar words. These indicated that linguistic knowledge was very important in reading text. It was used to guess word meaning and help L2 learners to overcome difficulties when they encountered unfamiliar words.

#### *Studies Related to Thai Students' Reading Problems*

Here is an overview of previous studies on Thai students' reading problems.

Pumirat (1992) studied the ability to analyze discourse types in the English reading of Mathayomsuksa 6 students, in Bangkok. The subjects were 480 Mathayomsuksa 6 students selected from 16 secondary schools. A test was developed by the researcher in order to measure the ability to analyze five discourse types in English reading: (a) description, (b) collection, (c) cause-effect, (d) comparison, and (e) problem solution. The results revealed that the students' mean score of the ability to analyze discourse types in English reading was very low. This indicated that the participants lacked the ability to analyze discourses. Therefore, they had problems understanding the passages.

Sritamai (1993) investigated the linguistic competence of Mathayomsuksa 6 students in three areas: (a) phonology, (b) vocabulary, and (c) grammar. The subjects were 916 Mathayomsuksa 6 students in the second semester of the academic year 1992. The instrument used in this study was an English linguistic competence test that aimed to investigate knowledge in phonology, vocabulary, and grammar. It was found that the participants had limited English linguistic competence; that is, the English linguistic competence of the participants was lower than the minimum level.

Sutta (1994) investigated the ability in using reading comprehension skills in reading expository texts. The participants were 56 graduate students in the Master of Arts in the teaching programs of Kasetsart University. The instrument used in this study was a multiple-choice test comprised of 40 questions. The test was constructed to measure the ability in using six different skills: (a) main idea, (b) detail, (c) sequence, (d) compare-contrast, (e) cause-effect, and (f) drawing conclusion and predicting outcomes. The results of the study revealed that the subjects' ability in using reading comprehension skills in reading expository texts was not proficient.

Satitporn (1995) conducted a study to investigate the role of an extensive reading program in teaching reading comprehension in 60 Mathayomsuksa 5 students. A test on vocabulary achievement was used to assess the participants' vocabulary knowledge in pretest and posttest. It was found that the students' score on the posttest was higher than the pretest and that thus the extensive reading program could improve effectively the students' vocabulary knowledge. However, it was found that the students' vocabulary knowledge was not proficient.

Sucompa (1998) investigated the current needs and problems in using technical English for tourism with students studying for a higher certificate at the Rajamangala Institute of Technology (RIT). The participants were 644 workers in the tourism industry, employers and owners of travel agencies, English language teachers, and students in tourism. They were randomly selected to answer questionnaires that were used to ask the participants' opinions and problems about their needs in using English. The results from the questionnaires revealed that reading, speaking, listening, and writing skills were important for tourism students. However, they had problems in reading English because they could not read English correspondence or E-mail messages proficiently.

Longsombun (1999) conducted a study to investigate the achievement in English of 140 Mathayomsuksa 6 students in government schools in the educational region 1 which consists of 5 provinces: Nakhonprathom, Nonthaburi, Samutprakarn, Samutsakorn, and Prathomtani. The instrument used in this study was tests which comprised listening, speaking, reading, and writing. It was found that the students' reading ability was below the minimum criterion. This indicated that their English achievement was also below a satisfactory level, particularly regarding reading ability.

Songsiri (1999) conducted a study to investigate the English reading skills of students studying in grade 12. The instruments used in this study were a standardized test, reading passages, and guided questions for individual interviews. It was found that the participants' English reading abilities were very disappointing. The participants had poor skills in vocabulary, syntax, and grammar. In addition, the results of the study revealed that unknown words and poor vocabulary was the cause of the participants' inability to guess word meaning in context. The lack of knowledge of grammar and syntax also blocked their

reading comprehension. Those two areas caused problems to seven specific English skills regarded as necessary for reading. The seven English reading skills are: (a) skimming for main ideas, (b) scanning for details, (c) making inferences, (d) finding the reference, (e) restating, (f) sequencing facts from opinions, and (g) determining the author's mood and tone.

Jesdapornpun (2001) conducted a study to examine the English reading proficiency of 18 technical staffs at Samart Comtech Company. The participants were selected from five departments: (a) Engineering Design (ED), (b) Engineering Management (EM), (c) Customer Service Relation Management (CSRM), (d) test lab, and (e) Management Information System (MIS). The participants were interviewed and their conversation audio recorded to collect the data. In addition, they were asked to read passages for testing their English reading ability. The results from the reading passages revealed that the English reading problems of the staff generally came from limited knowledge of the language and of the structure of the texts. Difficult words and expressions, such as idiomatic English and slang, tended to be found in reading in general topics. In addition, the results from the interviews showed that the participants had problems with unfamiliar words and with extracting the meaning from sentences and longer passages. Using a dictionary was the strategy that they usually used to solve reading problems when they encountered unknown words.

Ponmanee and Sinsuwan (2001) conducted a study to examine the needs and problems in English usage of 60 graduate students in teaching Thai and social science compared with students in teaching English. The questionnaires and reading test were used as the instrument. It was found from the reading test that reading was the main problem for them. In addition, the result from the questionnaires revealed that every student in all three

majors needed four English skills: listening, speaking, reading, and writing; however, reading skill was the most important for them because they need to acquire knowledge and gain more information in studying in the graduate level.

Adunyarittigun (2002) conducted a study to investigate the factors affecting English language reading success. The participant was a graduate student in an Information System Program at a university in the eastern United States. The participant learned English as a foreign language from the fifth grade until the end of the bachelor's degree in Thailand. Questionnaires and reading passages were used as instruments in the study. He was asked to read two English short stories and two Thai short stories and then retell these four stories. The results revealed that the inadequate knowledge of language structure and vocabulary was the main cause of the participant's difficulty to predict the meaning in context. Therefore, his reading comprehension was weak. The results from the questionnaire revealed that the participant had vocabulary problems when he encountered unfamiliar words.

Chuenta (2002) studied the English reading problems and needs of graduate students in administration. He further studied the development of reading materials to develop students' reading ability. The groups were composed of 100 graduate students in administration. The research instruments were questionnaires and samples of reading materials. It was found from the results that the participants had problems in reading more complex English. Their problems in reading were the inability to grasp the main idea, the inability to read quickly due to limited vocabulary, the inability to summarize the text, and the lack of appropriate reading strategies. In addition, in the open-ended part of the questionnaire, the participants commented that they could not understand the sentences with technical terms, phrases, and idioms. The participants found that they could not understand

passages which used unfamiliar vocabulary. Moreover, they needed to learn more about the context clues, roots, prefixes, suffixes, idioms, and dictionary skills. After an analysis of the data collected from the questionnaires, the reading materials were developed in order to try out with a small group of administration students. It was found that vocabulary was the main problem in reading texts.

Tanghirunwat (2003) conducted a study to examine the reading difficulties of Thai engineers reading manuals and textbooks. The subjects were 50 employees of telecommunication companies. Questionnaires were used to collect the data by examining the participants' difficulties with vocabulary, grammar and the content of technical texts. Manuals and textbooks were selected to assess their English reading proficiency. The results from the reading manuals and textbooks revealed that these Thai engineers had difficulties with vocabulary, grammar, and content when they read manuals and textbooks. The results from the questionnaires also revealed that the participants had problems with technical vocabulary, new vocabulary stemming from new technologies, and technical vocabulary in the telecommunication field. They had difficulties with grammar in the areas of compound sentences, complex sentences, complex noun phrases, and passive voice. Moreover, they lacked knowledge of other technical fields and knowledge of new technologies.

Thanamaimas (2004) studied the development of English reading comprehension by using DRA reading activity (a question-based strategy for guiding comprehension and consisting of five steps). The participants consisted of 6 first-year students in the Faculty of Business Administration. The instruments in this study were: (a) four reading texts, (b) four reading exercises, (c) the participants' diaries, and (d) the teachers' journals, and students-assessment rubric. The data from the exercises showed that the students were able to answer all three levels

of comprehension questions (literal, interpretative, and applied levels). The data from the teacher's journals revealed that there were two main problems in applying DRA reading activity: (a) the inability to analyze words, which might also have its cause in the lack of structure and grammatical knowledge, (b) the lack of vocabulary and background knowledge. The results from the participants' diaries and assessment rubric showed that the direct reading activity helped them better guess and enable them to read with more comprehension. However, after applying DRA reading ability activity, the students still claimed that they had problems with vocabulary and difficulties in translating some sentences in the reading passage.

Rattanaseeha (2007) studied the implementation of critical thinking to develop reading comprehension with 24 Mathayomsuksa 4 students at the Loei Institute of Princess Chulabhorn College in the first semester of the academic year 2005. The instruments used in this study were reading passages for testing critical thinking and questionnaires for asking the participants on their attitude toward reading English and critical thinking. The results from the reading passages revealed that the students' reading comprehension ability was low and the main problem that interfered with their reading comprehension was vocabulary. The findings indicated that critical thinking strategies could help the students develop their English reading comprehension. The results from the questionnaires revealed that the participants had a positive attitude toward reading English and critical skills.

#### *Studies Related to Reading Problems Particular to Science and Arts Students*

According to the Ministry of Education, secondary schooling has been allowed to provide two programs of study, science and arts, to the upper secondary school students. The present study aims at analyzing the differences in reading ability between students in the science program and the arts program. It will be useful for the teachers at this level to find proper



teaching methods when they know what the reading problems of their students of the two programs are. To understand the reading problems specific to the science and arts students, the previous studies on these two groups should be used to explore whether the program affects their reading ability.

Wongsuwan (1992) conducted a study to investigate the English reading problems of 496 Mathayomsuksa 6 students in a Demonstration School affiliated to the Ministry of University Affairs. There were 272 students in the science program and 224 students in the arts program. The instrument used in the study was a test comprised of 50 multiple-choice questions on three reading passages. It was found that the participants' reading ability in sentence structure, vocabulary in context, and paragraph organization was at an average level. There was no significant difference between the mean scores of the science and arts students in vocabulary in context, but in sentence structure and paragraph organization there were significant differences between the two groups.

Reanjaroen suk (1999) studied the English vocabulary proficiency of 615 first-year university students from the Faculty of Medical Science, the Faculty of Arts, and the Faculty of Science. The instruments were a multiple-choice test on English vocabulary in natural science, a questionnaire, and interviews. It was found from the results to the vocabulary test that the highest score was obtained by the medical science students, the arts students, and the science students, respectively. The findings also indicated that among the three groups the science students were the weakest in vocabulary proficiency. Based on the background information gathered from the questionnaire, more than 50% of the medical science students obtained a grade 'A' for English when in secondary school, 40% of the arts students obtained the same, and 19% of the science students obtained a grade 'A'. According to the interviews,

more than 75% of the arts students took any extra English courses during their secondary schooling, as 65% of the medical science students did the same, and 50% of the science students did so. This showed that arts students and medical science students are better prepared in English than science students. Additionally, the findings from this study indicate that the three groups of participants had vocabulary problems.

Subphadoongchone (2000) investigated the lexical guessing ability of 141 first-year Mahidol science students. The instruments were two types of lexical guessing tests and questionnaires. It was found from the lexical guessing tests that the science students' mean score was low. This indicated that the science students' vocabulary ability was not proficient. Furthermore, it was found that the science students' vocabulary ability was not proficient. The results from the questionnaires revealed that the problems in guessing the meaning of words from context derived from limited vocabulary knowledge and a lack of grammatical knowledge.

Intarasombat (2002) studied the effect of vocabulary development of English reading comprehension. The subjects were 40 students in the science program. The instrument used in this study consisted of vocabulary test and reading sub-test. Vocabulary test was used to measure Mathayomsuksa 4 students' knowledge of vocabulary. Reading comprehension test was used to measure the students' reading comprehension. It was found that the students' mean score in the vocabulary test and reading comprehension test was low. This indicated that the students had limited vocabulary knowledge and this area caused them problems of English reading comprehension.

Mingsakoon (2003) studied the vocabulary learning strategies of 129 Mathayomsuksa 6 students in the science and arts programs. There were 78 students from the science

program and 51 from the arts program. A vocabulary test was used to determine the participants' vocabulary ability. It was found that the science students and the arts students used reading strategies effectively when reading texts. The results from the vocabulary test revealed that there was no significant difference in vocabulary ability between the two groups; however, the results of the study revealed that the students had vocabulary problems.

In conclusion, science and arts students had similar problems in reading. They had limited vocabulary and syntactic knowledge. These two factors affect comprehension in reading.

#### Summary

As can be seen in the studies, insufficient knowledge of vocabulary and sentence structure causes problems of reading comprehension. The researcher realized that students' reading problems concerning vocabulary and sentence structure are regarded as a barrier to understand texts. These two factors may affect their studies at a higher level when they are required to be skillful readers of various English textbooks and other materials. Few researches have been done to investigate students' reading problems in these three areas: (a) sentence structure, (b) vocabulary, and (c) reading comprehension, especially in the Nakhonratchasima educational regions 1, 2, 3, and 7. Therefore, this study focused on the reading problems of 12<sup>th</sup>-grade students in sentence structure, vocabulary, and reading comprehension. It would be useful for Thai teachers to develop techniques to teach reading in order to improve their students' reading ability. This study would also help Thai teachers to understand better their students' reading problems and to find an appropriate way for teaching reading.

## CHAPTER III

### METHODOLOGY

This chapter describes research methodology employed in this study in order to investigate Thai 12<sup>th</sup>-grade students' reading problems. This chapter included five main parts: (a) the selection of schools, (b) the selection of participants, (c) instrumentation, (d) data collection procedures, and (e) data analysis. This study was conducted to investigate the English reading problems concerning sentence structure, vocabulary, and reading comprehension of Thai 12<sup>th</sup>-grade students in Nakhonratchasima educational regions 1, 2, 3, and 7. This study also analyzed the students' reading problems and the differences in the English reading ability between students in the science program and arts program.

The test developed by Wongsuwan (1992) was used to investigate Thai 12<sup>th</sup>-grade students' reading problems. The test was performed to the students in the second semester of the 2006 academic year.

#### Participants

##### *Selection of Schools*

Nakhonratchasima, one of the large provinces of Thailand, has been seen as an increase in the production and tourism industries (Nakhonratchasima Provincial Operation Center, 2006). It is also formed into the largest educational region of the country, with seven sub-regions. The schools in Nakhonratchasima are expected to prepare their learners for higher studies or factory work by providing them, for example, with the reading skills needed at university or at the workplace. With this reason, this research study selected the school institutions in Nakhonratchasima as the field for its investigation.

To decide which schools would be part of this study, the following selection process was performed. First, 4 of the 7 sub-regions were selected at random: educational sub-regions 1, 2, 3, and 7, which included a total of 62 secondary institutions. Since 20 of these did not offer a science or an arts program, they were left out. Then, half of the 42 remaining schools were chosen, also at random, and these 21 secondary schools that became part of this research were: (a) Ratchasimawittayalai, (b) Suranareewittaya, (c) Boonluavittayanusorn, (d) Koratpittayakom, (e) Nongboonnakpittayakom, (f) Nongboonnakprasongwittaya, (g) Huaytalangpittayakom, (h) Orapimwittaya, (i) Banmaipittayakhom, (j) Khonburi, (k) Pakdongchaiprachaniramid, (l) Soengsang, (m) Nonsomboonwittaya, (n) Wangnumkhewpittayakom, (o) Sukpiboonviriyawittaya, (p) Sagarattawutsuksa, (q) Somdedprateerayanamunee, (r) Mabtagopittayakhom, (s) Nikompimaisuksa, (t) Pimaidumrongwittaya, (u) Chumpoungsuksa.

#### *Selection of Participants*

Since students studying in grade 12 had studied English for 10 years or more, their language ability and proficiency were evaluated in four levels: (a) Preparatory-Level, (b) Beginning-Level, (c) Developing-Level, and (d) Expanding-Level (Ministry of Education, 2002). Therefore, they were considered having the necessary reading ability for the purpose of this study. From each of these 21 secondary schools, 40 students were randomly chosen, 20 from the science program and another 20 from the arts program, with a total of 840 learners, all students studying in grade 12 in the second semester of the academic year 2006.

### Instrumentation: Test

The instrument used in this study was a test that aimed to investigate the participants' reading problems. The test comprised three passages concerning sentence structure, vocabulary, and reading comprehension. It was administered to 12<sup>th</sup>-grade students in the science program and arts program. It was comprised of 50 multiple-choice questions for which two hours are allowed. The researcher studied the areas of the investigation in this study and found that the test was developed by Wongsuwan (1992) and that it could be used for the investigation of English reading problems of Thai 12<sup>th</sup>-grade students. The researcher was granted permission by the test developer to use this test in this study. The reliability of the test was 0.85 (Wongsuwan, 1992). The following areas were investigated:

1. Sentence structure

Complex noun group

Nominalization

Coordination

Subordination

Participial phrase - Present participle

Participial phrase - Past participle

Prepositional phrase

Introductory subject

Definition

Reference

Substitution

Elliptical expression

Signal word for sequential order

Exemplification

Signal word for additive

Signal word for adversative

Signal word for causal

Signal word for conclusion

(Nuttall, 2000)

2. Vocabulary

The students must be able to guess meaning of words by using context.

3. Comprehension reading ability: the students were measured the following areas:

Paragraph organization:

Topic

Getting main idea

Identifying inference / implication

Prediction

Sequential organization of the paragraph in the passage

Therefore, the test in the study consisted of 50 items: 21 items from passage I, 19 items from passage II, and 10 items from passage III. The classifying items were shown as follows:

*Table 1**Classify Items of Sentence Structure*

Sentence Structure	Passage I	Passage II	Passage III
1. Complex noun group	Item 11	Item 33	-
2. Nominalization	Item 8	-	Item 43
3. Coordination	Item 9	-	Item 44
4. Subordination	Item 10	-	-
5. Participial phrase			
- Present participle	Item 18	-	-
6. Participial phrase			
- Past participle	-	-	Item 45
7. Prepositional phrase	-	Item 29	-
8. Introductory subject	-	Item 31	-
9. Definition	Item 15	-	-
10. Reference	Items 1, 2	-	-
11. Substitution	-	Item 25	-
12. Elliptical expression	Item 19	-	Item 46
13. Signal word for sequential order	Items 17, 20	-	-
14. Exemplification	-	Item 23	Item 47
15. Signal word for additive	-	Item 37	-

*(table continues)*



*Table 1 (continued)**Classify Items of Sentence Structure*

Sentence Structure	Passage I	Passage II	Passage III
16. Signal word for adversative	-	Item 24	-
17. Signal word for causal	-	Item 28	-
18. Signal word for conclusion	-	-	Item 48
Total (25 items)	11 items	8 items	6 items

*Table 2**Classify Items of Vocabulary*

Vocabulary	Passage I	Passage II	Passage III
	Items 3, 4, 5, 6, 7,16	Items 22, 26, 27, 30, 32	Items 41, 42
	6 items	5 items	2 items

*Table 3**Classify Items of Reading Comprehension*

Reading Comprehension	Passage I	Passage II	Passage III
1. Topic	-	Item 35	-
2. Getting main idea	Item 12	Items 34, 36, 38	-
3. Identifying inference / implication	Items 13, 14	Item 40	Item 49
4. Prediction	-	Item 39	Item 50

*(table continues)*

*Table 3 (continued)**Classify Items of Reading Comprehension*

Reading Comprehension	Passage I	Passage II	Passage III
5. Sequential organization of the paragraph in the passage	Item 21	-	-
Total (12 items)	4 items	6 items	2 items

## Data Collection Procedures

The study conducted in the second semester of the academic year 2006 with 840 students studying in grade 12 in the science and arts programs at 21 different schools. They were asked to take the reading test after they took the mid-term examination offered by their schools.

## Data Analysis

Percentage of students passing the test was used to determine the participants' reading ability. They were classified that below 50 was problem area.

## Summary

This study investigated the English reading problems concerning sentence structure, vocabulary, and reading comprehension of Thai 12<sup>th</sup>-grade students in Nakhonratchasima educational regions 1, 2, 3, and 7. This study also analyzed the students' reading problems and the differences in the English reading ability between students in the science program and arts program. The instrument used in this study was the test which was developed by Wongsuwan (1992), and the researcher was granted permission by the test developer to use this test in this study, the reliability of the test was 0.85 (Wongsuwan, 1992). The test was

performed to 840 students studying in grade 12 in the second semester of the academic year 2006. They were asked to take the test after they took the mid-term examination offered by their schools. The scores obtained from the test were analyzed in order to answer each of the research questions. Percentage of students passing the test was used to determine the participants reading ability. It was used along with an assessment of basic Education curriculum 2002 (Ministry of Education, 2002).

## CHAPTER IV

### FINDINGS

This study was conducted to investigate the English reading problems related to sentence structure, vocabulary, and reading comprehension of Thai 12<sup>th</sup>-grade students in the educational regions 1, 2, 3, and 7 of Nakhonratchasima Province. This study also analyzed the differences in English reading ability between students in the science program and students in the arts program. The researcher randomly selected 21 schools out of 42 that offered both the science and arts programs at grade 12 in Nakhonratchasima's educational regions 1, 2, 3, and 7, and asked them to participate in this study. Then, 20 science students and 20 arts students in each of the 21 schools were randomly selected. Therefore, the total number of participants in this study amounted to 840.

This chapter presents the findings of the study according to the following research questions:

1. What reading problems do 12<sup>th</sup>-grade students in both science and arts programs in Nakhonratchasima have?
2. Are there any differences in reading problems between the science and arts students in Nakhonratchasima?

### Research Question 1

What reading problems do 12<sup>th</sup>-grade students in both science and arts programs in Nakhonratchasima have?

#### *Results*

The participants were asked to take a reading test consisting of three parts: (a) sentence structure, (b) vocabulary, and (c) reading comprehension. They were evaluated on such sentence structures as introductory subject, nominalization, signal words, and complex noun groups. In the vocabulary part of the test, they were asked to guess the meaning of unknown or difficult words from contextual clues or by using their background knowledge. The section dealing with reading comprehension examined the areas of predicting, finding the topic, getting the main idea, identifying inferences and implications, and understanding the sequential organization of the paragraphs in a passage. Table 4 presents the participants' ability in identifying the sentence structures provided in the reading test. The sentence structures contained 24 items. The percentage of the students giving the correct answers was calculated.

#### *Sentence structure.*

The test results indicate that less than 50% of the students participating in this study answered correctly on this part of the test, thus showing that most of them had problems in this area. The most critical problems had to do with introductory subjects, coordinations, elliptical expressions, signal words indicating causality and sequential order, past participial phrases, and nominalizations. As seen in Table 4, over 70% of the participants could not give the correct answers. Therefore, these types of sentence structures were the most difficult for them.

Table 4 also shows that the other sentence structure problems for the participants were related to substitution, subordination, signal words indicating conclusion, prepositional phrases, exemplification, signal words indicating additive, signal words indicating adversative, complex noun groups, references, definitions, and participial phrases in the present participle. Only 30-40% of the participants in this study could provide the correct answers in these areas. Therefore, the data revealed that over 70% of the participants showed difficulties in these areas of sentence structure.

To sum up, Table 4 clearly demonstrates that the participants had problems in each and every area of sentence structure investigated in the test because over half of them could not give the correct answers in this part of the test.

*Table 4*

*Percentage of Participants with the Correct Answers on Questions Related to Sentence Structure (on 25 items)*

Types of sentence structures (item)	Number of participants with the correct answers ( <i>N</i> = 840)	Percentage of participants with the correct answers
Introductory subject (31)	175	20.83
Coordination (9, 44)	353	21.01
Elliptical expressions (19, 46)	390	23.21
Signal word indicating causality (28)	216	25.71
Signal words in a sequential order (17, 20)	456	27.14
Past participle (45)	240	28.57
Nominalization (8, 43)	490	29.17

*(table continues)*

*Table 4 (continued)**Percentage of Participants with the Correct Answers on Questions Related to Sentence**Structure (on 25 items)*

Types of sentence structures (item)	Number of participants with the correct answers ( <i>N</i> = 840)	Percentage of participants with the correct answers
Substitution (25)	252	30.00
Subordination (10)	260	30.95
Signal word for conclusion (48)	266	31.67
Prepositional phrase (29)	269	32.02
Exemplification (23, 47)	540	32.14
Signal word for additive (37)	274	32.62
Signal word for adversative (24)	286	34.05
Complex noun group (11, 33)	603	35.89
Reference (1, 2)	633	37.68
Definition (15)	334	39.76
Present participle (18)	338	40.12
Total	6,375	30.36

*Vocabulary.*

When the participants were asked to give the meaning of unknown or difficult words, it was found that the percentage of those who answered correctly was low. For example, less than 20% of the test-takers knew the meaning of the word “dormant.” That is, over 80% of them did not understand this word because they did not refer to the context provided in the

sentence to help them guess the meaning (see reading passage in Appendix A). Moreover, it was found that 70% of the participants did not know the meaning of the words “deposited,” “accessibility,” “progenitors,” “ceased,” “the must,” “void,” “burden,” “optimum,” “accumulation,” and “eliminating.” They did not refer to the context provided around those words to help them guess the meanings. Therefore, the findings indicated that over 70% of the test-takers, that is, most of the participants in this study, experienced vocabulary problems. Table 5 presents the percentage of the participants who answered correctly to the questions related to vocabulary in the test.

*Table 5*

*Percentage of Participants with the Correct Answers on Questions Related to Vocabulary  
(on 13 items)*

Vocabulary words (item)	Number of participants with the correct answers ( <i>N</i> = 840)	Percentage of participants with the correct answers
dormant (3)	167	19.88
deposited (42)	183	21.79
accessibility (32)	191	22.74
ceased (5)	192	22.86
Progenitors (41)	194	23.10
must (16)	209	24.88
burden (26)	214	25.48
void (22)	215	25.60

*(table continues)*



*Table 5 (continued)*

*Percentage of Participants with the Correct Answers on Questions Related to Vocabulary  
(on 13 items)*

Vocabulary words (item)	Number of participants with the correct answers ( <i>N</i> = 840)	Percentage of participants with the correct answers
optimum (30)	249	29.64
accumulation (6)	251	29.88
eliminating (7)	254	30.24
abandoned (27)	298	35.48
vintage (4)	359	42.74
Total	2,976	27.25

*Reading comprehension.*

In the reading comprehension part of the test, the participants were asked to infer and to find the implication of the passage. They were also asked to identify the topic and main idea, to predict, and to describe the sequential organization of a paragraph. It was found from the test results that the participants lacked the ability to infer and to draw implications. Only 20% of them used the information in the passage to predict what would happen next. About 30% were able to infer and to identify the implication. In addition, the test-takers were not able to identify the topic or the important ideas of a passage. Apart from this, they could not organize and follow the sequential order that the authors of the passages wanted to express. Between 30% of the participants in this study gave the correct answers to the questions related to the organization of a passage. Therefore, it can be concluded from the results of

the test, as shown in Table 6, that the participants could not understand the part of the test related to reading comprehension because they lacked the ability to predict, to identify the topics and main ideas, to use the information provided in order to infer and draw implications, and to organize the ideas presented in the passages.

*Table 6*

*Percentage of Participants with the Correct Answers on Questions Related to Reading Comprehension (on 12 items)*

Types of skills (item)	Number of participants with the correct answers ( <i>N</i> = 840)	Percentage of participants with the correct answers
Prediction (39, 50)	378	22.50
Identification of the topic (35)	221	26.31
Identification of the main idea (12, 34, 36, 38)	992	29.52
Identification of inference and implication (13, 14, 40, 49)	1,049	31.22
Description of the sequential organization (21)	320	38.10
Total	2,960	29.37

## Research Question 2

Are there any differences in reading problems between the science and arts students in Nakhonratchasima?

### *Results*

#### *Sentence structure.*

In this part, the students in both programs were asked to demonstrate their understanding of sentence structures, such as introductory subject, nominalization, signal words, and complex noun group. Concerning the science students, it was found from the results of the study that about 30% of those participating in this study gave the correct answers in the section related to sentence structure in the reading test. Therefore, it could be concluded that over 70% of the science students had problems with sentence structure, as Table 7 shows. The most important problems were related to introductory subject, coordination, elliptical expressions, signal words indicating causality, sequential order, and nominalization, respectively from the most to the least critical problems, because less than 30% of the participants were able to answer correctly the questions related to these areas of sentence structure. Apart from this result, less than 40% of them gave correct answers to questions related to past participial phrases, prepositional phrases, signal words indicating additive, signal words for conclusion, signal words indicating adversative, exemplification, substitution, subordination, complex noun groups, and reference. Therefore, these types of sentence structures were also considered problem areas for science students. The areas in which the science students performed best were present participial phrases and definitions. However, the results of the test showed that these two areas were still problematic for them because only 40% answered correctly to the questions related to them. Therefore, it can be

concluded from the results of the study that the science students participating in this study had problems in every area of the investigation because most of them could not give the correct answers to the questions in the test.

With respect to sentence structure and the arts students, it was found from the results of the study that the most critical problems were related to introductory subjects, coordinations, signal words indicating causality, elliptical expressions, past participial phrases, sequential order, substitution, subordination, and nominalization, because less than 30% of these participants could give correct answers to questions related to these areas. In other words, over 70% of arts students had problems with these types of structure. Their other problems had to do with signal words indicating conclusion, signal words indicating adversative, exemplification, prepositional phrases, signal words indicating additive, complex noun groups, references, definitions, and present participial phrases, because less than 40% of them could correctly answer the questions related to these areas of sentence structure. Thus, most of the arts students (over 60% of them) had difficulties with these areas. The results of the study indicated that the arts students had problems in every area related to sentence structures because most of them could not give the correct answers to the questions in the test. Table 7 gives a detailed description of these results.

In conclusion, it was found from the test results that less than 50% of the students in both groups – science and arts – were able to give correct answers in the area of the test related to sentence structure. The results indicated that the students in both groups had the same problems with sentence structure. The most critical problems found in the two groups were related to introductory subjects, coordinations, elliptical expressions, signal words indicating causality, sequential order, participial phrases, and nominalization. The results of

the study indicated that few students, whether in the science or the arts group, could give the correct answers. Thus, there were no differences in the reading abilities between the science students and the arts students in the area of sentence structure.

*Table 7*

*Science Students and Arts Students Giving the Correct Answers to Questions Related to Sentence Structure (on 25 items)*

Types of sentence structures (item)	Science Students ( <i>N</i> = 420) (%)	Arts Students ( <i>N</i> = 420) (%)
Introductory subject (31)	85 (20.24%)	90 (21.43%)
Coordinations (9, 44)	171 (20.36%)	182 (21.67%)
Elliptical expression (19, 46)	175 (20.83%)	215 (25.60%)
Signal word for causal (28)	113 (26.90%)	103 (24.52%)
Signal word for sequential order (17, 20)	235 (27.98%)	221 (26.31%)
Nominalization (8, 43)	250 (29.76%)	240 (28.57%)
Past participle (45)	127 (30.24%)	113 (26.10%)
Prepositional phrase (29)	132 (31.43%)	137 (32.62%)
Signal word for conclusion (48)	137 (32.62%)	129 (30.71%)
Exemplification (23, 47)	274 (32.62%)	266 (31.67%)
Substitution (25)	136 (32.98%)	116 (27.62%)
Subordination (10)	142 (33.81%)	118 (28.10%)
Signal word for adversative (24)	154 (36.67%)	132 (31.43%)
Complex noun group (11, 33)	306 (36.43%)	297 (35.36%)

*(table continues)*

Table 7 (continued)

*Science Students and Arts Students Giving the Correct Answers to Questions Related to Sentence Structure (on 25 items)*

Types of sentence structures (item)	Science Students ( <i>N</i> = 420) (%)	Arts Students ( <i>N</i> = 420) (%)
Complex noun group (11, 33)	306 (36.43%)	297 (35.36%)
Reference (1, 2)	331 (39.40%)	302 (35.95%)
Present participle (18)	177 (42.14%)	160 (38.10%)
Definition (15)	181 (43.10%)	153 (36.43%)
Total	3,432 (31.43%)	3,271 (29.95%)

#### *Vocabulary.*

In this part of the test, the participants were asked to guess the meaning of difficult words from contextual clues or by using their background knowledge. From the results collected from the science students participating in the study, it was found that they were unable to guess from the context the meaning of the unknown or difficult words. Only 20-29% of them could guess the meaning of the words “dormant,” “deposited,” “progenitors,” “accessibility,” “must,” “burden,” “ceased,” “void,” and “optimum” (see the reading passage in Appendix A). That is, over 70% of the science students showed vocabulary problems because they were unable to use context clues to guess the meaning of these words. Besides, it was found that between 30-40% of the science students could guess the meaning of the words “vintage,” “accumulation,” “abandoned,” and “eliminating” because they lack the ability to use context clues to help them guess the meaning of these words. Therefore, the

results of the study showed that less than 30% of the science students could give the correct answer; that is, over 70% of the science students had vocabulary problems.

Thus, it can be concluded from the results of the study that most of the science students participating in this study had vocabulary problems because few of them guessed the meaning of unknown and difficult words by using the contextual clues provided in the sentences or paragraphs. Table 8 presents the percentage of these participants giving correct answers on the vocabulary items.

As for the arts students, most of them had the same problems as the science students on the test items that asked them to give the meaning of unknown words. Over 70% of them could not use the context provided in the sentences or paragraphs to help them guess the meaning of these words. Therefore, it can be concluded from the results of the study that the art students could not use the contextual clues to help them understand the meaning of difficult or unknown words on the vocabulary test.

In conclusion, the vocabulary section of the test asked the participants in this study to use their background knowledge or contextual clues to help them guess the meaning of unfamiliar or difficult words. But most of them could not give the correct answers to these vocabulary questions. It was found that about 30% of the participants in both groups – science and arts students – could give the correct answers. Therefore, the results revealed that most of them (over 70% of both groups) had vocabulary problems. That is to say, there were no differences in vocabulary problems between the science and the arts students because both of them had a low level of vocabulary knowledge.

Table 8

*Science Students and Arts Students Giving the Correct Answers to Questions related to Vocabulary (on 13 items)*

Vocabulary words (item)	Science Students ( <i>N</i> = 420) (%)	Arts Students ( <i>N</i> = 420) (%)
dormant (3)	79 (18.81%)	88 (20.95%)
deposited (42)	86 (20.48%)	105 (25.00%)
accessibility (32)	97 (23.10%)	86 (20.48%)
ceased (5)	93 (22.14%)	99 (23.57%)
must (16)	99 (23.57%)	110 (26.19%)
burden (26)	100 (23.81%)	114 (27.14%)
progenitors (41)	106 (25.24%)	88 (20.95%)
void (22)	108 (25.71%)	107 (25.48%)
optimum (30)	117 (27.86%)	132 (31.43%)
vintage (4)	138 (32.86%)	116 (27.62%)
accumulation (6)	140 (33.33%)	111 (26.43%)
abandon (27)	158 (37.62%)	140 (33.33%)
eliminating (7)	174 (41.43%)	185 (44.05%)
<b>Total</b>	<b>1,495 (27.38%)</b>	<b>1,481 (27.12%)</b>



*Reading comprehension.*

In this part of the test, the participants' text comprehension skills were tested as they were asked to infer or to find the implication of the passages. They were also asked to identify the topic and main idea, to predict, and to tell the sequential organization of some paragraphs.

With respect to the reading comprehension of the science students, it was found that about 30% of them gave the correct answers. In other words, most of them had problems with reading comprehension. In addition, it was found that the most critical problems had to do with predicting and finding the topic. Between 20-29% of the science students were able to use the information in the passage to predict what would happen next and to identify the topic of the passage. Therefore, most of them (over 70%) had problems in these two areas. The next problems included the inability to find the main idea, identify inference and implication, and organize the sequential order of a paragraph. Between 30-40% of these students identified the important ideas of the passage, identified inference and implication, and understood the sequential order that the authors wanted to express. Therefore, it can be concluded that most of the science students had reading comprehension problems because only a few of them were able to use the information to predict what would happen next in the passage. Furthermore, they could not identify the topic and main idea, use the information provided in the text in order to infer and find the implication, and organize the ideas presented in the passage. Table 9 gives an overview of these results.

With respect to the reading comprehension of the art students, it was found that less than 30% of them could give the correct answers; thus, over 70% of the arts students participating in this study had reading comprehension problems. In addition, it was found

from the results of the study that only 20-29% of them were able to give the correct answers in the areas of predicting, finding the topic, and getting the main idea; therefore, most of these students (over 70% of them) had problems in understanding the reading passage. Besides, the results of the study showed that only 30-35% of the arts students could identify the inference and implication and organize the sequential order of the paragraphs. Therefore, most of the arts students (65% of them) had reading comprehension problems. Thus, it can be concluded from the results of the study that the arts students had problems in understanding the reading passage because most of them were not able to use the information to predict what would happen next in the passage. Besides, they could not identify the topic or the important ideas of the passage. In addition, they could not identify inference and implication and follow the sequential order of a paragraph. Table 9 presents the percentage of the arts students who performed well in the part of the test related to reading comprehension.

It could be concluded from the results of the test that about 30% of all the participants in this study could give the correct answers in this area of the test. That is, most of them (over 70%) had reading comprehension problems, and the percentage of the science students and arts students giving the correct answers was not different.

Table 9

*Science Students and Arts Students Giving the Correct Answers to Questions Related to Reading Comprehension (on 12 items)*

Types of skills (item)	Science Students (N = 420) (%)	Arts Students (N =420) (%)
Predicting (39, 50)	189 (22.50%)	189 (22.50%)
Identifying the topic (35)	112 (26.67%)	109 (25.95%)
Identifying the main idea (12, 34, 36, 38)	516 (30.71%)	476 (28.33%)
Identifying inference and implication (13, 14, 40, 49)	525 (31.25%)	524 (31.19%)
Sequential organization of a paragraph (21)	177 (42.14%)	143 (34.05%)
Total	1,519 (30.14%)	1,441 (28.59%)

#### Summary

It was found from the results of the study that over 50% of the participants could not give the correct answers to the questions on the test. Thus, they had problems with all three areas of the reading test: sentence structure, vocabulary, and reading comprehension.

With respect to sentence structure, it was found that less than 50% of the students in this study could give the correct answers to the questions on this part of the test.

Consequently, it is easily concluded that most of the participants had problems in this area.

Additionally, in testing the differences between the science students and the arts students' ability to understand sentence structure, it was found that about 30% of the science students and the arts students were able to give the correct answers. Again, this showed that most of

them had problems with understanding sentence structure. In addition, the results of the study revealed that the percentage of those giving the correct answers in the two groups was not different. It can be concluded that both the science and the arts students had difficulties with this area of the test.

With respect to vocabulary, it was found that most of students participating in this study were unable to guess the meaning of unknown or difficult words. About 30% of the participants could guess the meaning of these words. This showed that over 70% of them had vocabulary problems. Besides, in testing the differences between the science students and the arts students' vocabulary knowledge, it was found that about 30% of the science students and the arts students gave correct answers. Therefore, most of them (over 70% of both groups) had vocabulary problems. It can be concluded from the results of the study that the percentage of the science students and the percentage of the arts students giving the correct answers was not different because both of these groups had poor vocabulary knowledge.

With respect to reading comprehension, it was found from the results of the study that about 30% of the students understood the message of the passages; that is, most of the participants had problems with reading comprehension. The results of the study indicated that the participants had problems with all of the following five areas of reading comprehension evaluated in the test: (a) making predictions, (b) identifying the topics, (c) getting the main ideas, (d) identifying inferences and implications, and (e) understanding the sequential organization of a paragraph. It can be concluded from the results of the study that the participants did not understand the passages that they were reading because they could not predict what would happen next. They also lacked the ability to identify the inference

and implication. In addition, they could not identify the topic or the important ideas of a passage. The next problem was that they could not organize and follow the sequential order suggested by the authors.

Besides, it was found from investigating the science and arts students' skills in reading comprehension that about 30% of these two groups gave the correct answers. That is, most of the participants (over 70% of them) had reading comprehension problems. It can be concluded that there were no differences in reading ability between students in the science and the arts groups. That is to say, both the science and the arts students could not infer, imply, and predict the messages that the authors did not express literally in their writing. In addition, they could not identify the topic and the important ideas of the passage. Therefore, they had problems to understand the passages.

## CHAPTER V

### CONCLUSION AND DISCUSSION

This study was conducted to investigate the English reading problems of Thai students concerning sentence structure, vocabulary, and reading comprehension. The participants in the study were composed of 840 studying in grade 12 in the Nakhonratchasima educational regions 1, 2, 3, and 7. Forty students were selected at random from each school with an equal number in the science and arts programs. As noted in the introduction, the results of this study will provide information on Thai students' reading problems in relation to sentence structure, vocabulary, and reading comprehension. This information could be used as a guideline for Thai teachers to develop techniques to teach reading in order to improve their students' reading ability. The study will also help Thai teachers to understand better their students' reading problems and to find an appropriate way for teaching reading.

This chapter presents the findings of the study according to the following research questions.

1. What reading problems do 12<sup>th</sup>-grade students in both the science and arts programs in Nakhonratchasima have?
2. Are there any differences in reading problems between the science and arts students in Nakhonratchasima?

In this chapter, the results of the study are discussed in accordance with these research questions. Following this, applications and recommendations for further studies are presented.

### Research Question 1

What reading problems do 12<sup>th</sup>-grade students in both the science and arts programs in Nakhonratchasima have?

#### *Results*

The participants were asked to take a reading test. The test was divided into three parts: (a) sentence structure, (b) vocabulary, and (c) reading comprehension. It was found from the results of the testing of these three areas that about 30 % of the participants could give the correct answers; therefore, most of them (over 70%) had problems in those three areas of the investigation. The results of the study suggest that most of the participants had limited linguistic and vocabulary knowledge, which is why they could not comprehend the reading text.

#### *Discussion*

The results of the study showed that the participants had problems in all three areas of sentence structure, vocabulary, and reading comprehension. Most of them could not give the correct answers to the questions in the test.

The results of this study are consistent with the results found in the study conducted by Sritamai (1993) in which the students had limited English linguistic competence (in vocabulary and grammar); that is, the English linguistic competence of the participants was lower than the minimum level. The results of the present study indicated that over 60% of the participants had problems in all three areas of the reading test: (a) sentence structure, (b) vocabulary, and (c) reading comprehension.

According to Sutta (1994), the reading ability of Thai students is low. They lacked the ability in getting the main idea, drawing conclusion, and predicting the author's purpose. These problems lead to difficulties in reading comprehension. In this

study the participants also had comprehension problems. Few of them could use the information in the passage to predict what would happen next. Less than 30% of them were able to identify the topic or the important ideas of a passage. Therefore, the participants could not understand the part of the test related to reading comprehension, because they lacked the ability to predict, to identify the topics and main ideas, to use the information provided in order to infer and draw implications, and to organize the ideas presented in the passages.

According to the results of the current study, the students' reading problems might come from the Thai teachers' teaching method. As revealed in the results of the study conducted by Ruangputtanakul and Tongjai (2006), Thai teachers do not use various reading strategies to improve the students' reading ability, such as using context clues to guess the meaning of the difficult words, using synonyms and key words to guess meaning from context, and using knowledge of affixes and root words to infer the meaning of new words. That is to say, Thai teachers teach reading by explaining the grammatical rules and translating the meaning from English into Thai, which does not help the students learn proper reading strategies. To support this view, Chandavimol (1998) said that Thai teachers normally tell their students to read a text, then to do exercises. Consequently, Thai students do not learn any reading strategies. This teaching method does not help them to improve their reading abilities. She also said that teaching reading comprehension by translating each sentence into Thai does not help students to read effectively. The learners might confuse the important ideas when they are faced with the difficulty of translating word by word a sentence into Thai. As a result, they are bored and tired because the process of translating every word does not help or improve their reading. Thus, to increasing reading comprehension, teachers should teach the students to ignore difficult words in the context for increasing reading comprehension



(Nuttall, 2000). Teaching students to use context clues is more effective than teaching them to work with use definitions. In addition, teaching synonyms and key words while presenting and discussing the information can lead students to construct meaning from the other words in the sentences (Hayes, 1991; Rubin 1993).

Add to this, knowledge of vocabulary is very important for reading comprehension as it is used to determine word meaning. Proficient vocabulary knowledge helps readers to understand complex materials such as textbooks which contain many concepts and technical vocabulary (Graves & Ryder 1994; Hayes, 1991; Kinzer & Leu, 1995). The knowledge of sentence structure, that is of sentence syntax or word order is also necessary for the comprehension process. The reader could use it to determine the meaning of sentences and the grammatical function of a word. Therefore, language structure has an influence in reading comprehension. Because of the lack of using strategies, the students cannot understand the texts, which affect their getting the main idea, identifying inferences, and drawing conclusions (Kinzer & Leu, 1995; O' Donnell & Wood, 2004; William, 1994).

Therefore, the cause of the reading problems of the participants in the current study might be due to the Thai teachers' teaching method. Teachers should try to use various strategies to improve and develop their reading abilities. Moreover, they should realize the problems and choose the most appropriate teaching method, the preparation of teaching materials, and teaching technique in order to help their students to improve their reading abilities.

## Research Question 2

Are there any differences in reading problems between the science and arts students in Nakhonratchasima?

### *Results*

The participants were asked to take a reading test to bring out the differences in reading problems between the science students and the arts students. The results of the investigation showed that both science and arts students had problems in all three areas of the investigation: (a) sentence structure, (b) vocabulary, and (c) reading comprehension. About 30% of both science students and arts students were able to give the correct answers in testing for sentence structure, vocabulary, and reading comprehension; therefore, most of them (over 70% of the students) had problems in all three areas. The results of the study indicated that there were no differences in the reading ability between the science students and the arts students in the areas of sentence structure, vocabulary, and reading comprehension.

### *Discussion*

The results of the study revealed that both science students and arts students had problems in sentence structure, vocabulary, and reading comprehension. There were no differences in reading ability between these two groups within all three areas.

The results of this present study were consistent with the results found in the study conducted by Wongsuwan (1992) to the effect that students' reading ability in sentence structure, vocabulary in context and paragraph organization was at an average level. In this study no significant difference was found between the mean scores of science and arts students in vocabulary in context, but in sentence structure and paragraph organization a significant difference between the two groups appeared. The results of this present study showed that both science students and arts students had problems with all

three areas of the reading test: (a) sentence structure, (b) vocabulary, and (c) reading comprehension. The percentage of the science students and the percentage of the arts students giving the correct answers were not different because both groups had poor ability in sentence structure, vocabulary and reading comprehension.

According to Intarasombat (2002), limited vocabulary knowledge caused problems in English reading comprehension to science students in Mathayomsuksa 4. Richek, Caldwell, Jennings, and Lerner (1996) support this view that vocabulary influences reading comprehension; that is, reading comprehension needs knowledge of word meaning and language to understand a text. Therefore, knowledge of vocabulary is extremely important in reading comprehension.

According to the present study, both science and arts students had English reading problems within all three areas: (a) sentence structure, (b) vocabulary, and (c) reading comprehension. In the area of sentence structure, the most critical problems found in the two groups had to do with introductory subjects, coordinations, and elliptical expressions because less than 30% of the participants could give the correct answers on these three topics. To illustrate this fact, here is a sentence taken from passage II with which the participants had difficulties in the area of introductory subject: “**It** is advisable for all members of the family to express their feelings and concerns about the inevitable changes candidly.” The highlighted word “It” in the sentence means refers to the advice to the member of the family. The participants did not understand what the meaning of the word “It” was because the subject of the sentence was not expressed directly. It was not clear for them to understand. The participants also had difficulty to understand coordinations. The following sentence from passage III illustrates this difficulty: “She spent her days gathering fruits, nuts, seeds, tubers, roots, berries, beans, and grains and made meals for the early human family out of complex carbohydrates – and fresh fruit and vegetables.”

This is a long sentence with a lot of difficult words; therefore, the participants did not understand it and did not know what in the sentence was joined by the word “and.”

Lastly, elliptical expressions were another of the students’ reading problems. An ellipsis is the omission of information, a writing technique that is often the cause of unclear meaning, and of reading problems. Taken from passage I is this sentence showing the participants’ reading problems with ellipsis: “When all activity has ceased, the wines are run from the vats into barrels - - leaving behind the skins and sediment - - and are left to settle for several months.” In this sentence, the participants did not know what was left to settle for several months because the author did not express it directly. Consequently, poor readers could not understand nor guess its meaning. However, by carefully reading, they would have found that what was left to settle for several months were the wines. The main reason for the participants’ reading problems was poor vocabulary knowledge. Therefore, they were not able to follow, guess, and predict the elements in the passage.

In the vocabulary test, the most critical problems found were the words “dormant,” “accessibility,” and “deposited.” Less than 30% of both science students and arts students gave the correct answers; that is, over 70% of them had vocabulary problems. The word “dormant” was the most difficult for the participants. However, if they had read carefully they would have noticed the context clues and guessed its meaning. Here is the sentence taken from passage I: “The vines have lain **dormant** all winter. In early summer they flower and produce grapes which develop until autumn when they are ready to be harvested and the vintage begins.” In fact, carefully reading the second sentence, the participants would have guessed the meaning of “dormant” since in that sentence, the author used its antonym “flower,” a clue to the right meaning. Antonyms are words with opposite meaning, and they help readers understand the meaning of words and sentences. The next difficult word was “accessibility” and the

following sentence from passage II shows the participants' reading problems: "Many factors must be taken into consideration: the children's personality and maturity, the amount of time the children will be alone, the safety of the neighborhood, **accessibility** of help in case of an emergency." The word "accessibility" in this sentence means knowing where and how to get help when in trouble. To understand this word, the readers need comprehension in reading. However, this sentence was long and vocabulary was the main problem for the participants' reading comprehension. Next, this sentence from passage III showed the participants' reading problem with the word "deposited":

"Analyses of fossils of human feces **deposited** 300,000 years ago reveal that our human ancestors subsisted primarily on a vegetable diet." The phrase "300,000 years ago" was a clue to help the participants think carefully about what was involved then. By doing so, they should have guessed the meaning of "deposited." Something that obstructed and affected the participants' reading comprehension was the presence of many difficult words in the sentences, and this led them to the inability to guess and understand the passage clearly.

In testing students' reading comprehension, the critical problems found had to do with prediction, topic, and main idea. Prediction is the ability to guess what will happen next in a passage. If the participants could not understand it, they could not predict what would happen next. In passage II, the researcher used the following question: "What is possible if the problem is solved?" The passage talked about a mother who had to leave home to work full time so her children felt lonely. Therefore, if she stayed with them, they would be less at risk physically and emotionally. However, since the readers had reading comprehension problems, they were not able to predict what would happen next in the passage.

The next difficulty in reading comprehension related to finding the topic in the passage in which the researcher used the question: “Who are the Latchkey children?” The participants could not tell who they were because they did not know where to find the topic or because they had poor vocabulary knowledge. For this reason, in teaching reading teachers should tell the students how or where to find the topic.

Finally, the participants had problems grasping the main idea of the passages. They did not know how or where to find this main idea. This problem affected teaching method of Thai teachers who have to teach their students how to get the main idea of the passage because main idea is the important idea in the passage that readers should know and understand; otherwise, their reading comprehension might be obstructed.

Therefore, in teaching reading teachers should teach various reading strategies to help students to read effectively. Teachers also give background information to lead students develop concept and relate to a topic. They should present words and encourage students to use context clues in order to determine meaning. Finally, teachers use questions to encourage students to show their understanding of words meaning.

Added to these difficulties, the cause of Thai students’ reading problems may be due to the students themselves. Tonkrongjun (2002) and Sratongnium (2007) said that most Thai students are interested in television programs, computer games, and the Internet rather than in reading materials such as cartoons, magazines, and textbooks. Thai students were not even interested in Thai materials; thus, it is difficult for them to read English language materials. For this reason, they do not have vocabulary stored in their memories. Therefore, they had problems to comprehend when they read English materials.

### Recommendations for Further Studies

Recommendations for further studies are presented as follows:

1. This study was carried out to investigate the reading problems of 12<sup>th</sup>-grade students. Therefore, a study should be conducted with students of other secondary levels in order to gain better understanding of students' reading problems. This could help teachers improve their teaching techniques in order to develop their students' reading ability.
2. In further studies, a questionnaire should be added to obtain more information on the participants' reading problems.
3. This study was conducted to investigate students' reading problems in the three following areas: sentence structure, vocabulary, and reading comprehension. Similarly, the Thai teachers' teaching methods should be investigated using a questionnaire on the teaching strategies leading to problems in reading. A questionnaire could focus on the schools from which the participants were selected. This would be useful for teaching reading if teachers knew more clearly their students' reading problems. The teachers could use the information from the result of the study to develop teaching techniques in order to improve their students' reading ability.

### Implementation of the Study

This study aimed to investigate the reading problems of 12<sup>th</sup>-grade students. The results of the study showed that the students' reading ability was not proficient. They had problems with all three areas of the investigation: (a) sentence structure, (b) vocabulary, and (c) reading comprehension. The findings obtained from this study provide information on Thai students' reading problems in relation to sentence structure, vocabulary, and reading comprehension. In addition, the findings may enable the

teachers to find a more effective way of teaching vocabulary and reading comprehension.

The study also may help Thai teachers to understand better their students' reading problems and to find an appropriate way for teaching reading.



## REFERENCES

## REFERENCES

- Adunyaritigun, D. (2002). "An investigation of factors affecting English language reading success: A case study of an EFL college reader," *Thammasat Review*, 7(1), 244-271.
- Aebersold, J. A., & Field, M. L. (1997). *From reader to reading teacher*. Cambridge: Cambridge University Press.
- Alderson, C. J. (2002). *Assessing Reading*. The United Kingdom: Cambridge University Press.
- Asraf, R. M., & Ahmad, I. S. (2003). "Promoting English language development and the reading habit among students in rural schools through the guided extensive reading program," *Reading in a Foreign Language*. 15(2), October. Retrieved August 10, 2005, from <http://www.nflrc.hawaii.rdu/rfl/October2003/mohdaraf.html>
- Block, C. C. (2003). *Literacy Difficulties: Diagnosis and instruction for reading specialists and classroom teachers*. Boston: Allyn and Bacon.
- Champaruang, K. (1999). *English achievement of Mathayomsuksa 6 students (Language Program) in government schools in educational region 5*. Unpublished master's thesis, Kasetsart University, Bangkok, Thailand.
- Chandavimol, M. (1998). "Reading comprehension: An active engagement or a passive experience?," *PASSA*, 28, 31-42.
- Chen, I., & Fang, C. (1996). *Essential English reading skill for high beginning students*. Taiwan: Mcgraw-Hill.
- Chuenta, C. (2002). *Reading materials for graduate students in administration*. Unpublished master's thesis, Khon Kaen University, Khon Kaen, Thailand.

- Crawley, S. J., & Mountain L. (1995). *Strategies for guiding content reading*. Massachusetts: Allyn & Bacon A Simon & Schuster Company.
- Day, R. R., & Bamford, J. (1998). *Extensive reading in the second language classroom*. New York: Cambridge University Press.
- Flemming, L. E. (1997). *Reading for thinking*. Massachusetts: Houghton Mifflin Company.
- Graves, M. F., & Ryder, R. J. (1994). *Reading and learning in content areas*. New York: Macmillan College Publishing Company.
- Graves, M. F., & Ryder, R. J. (1998). *Reading and learning in content areas*. New York: Macmillan College Publishing Company.
- Gunning, T. G. (2002). *Assessing and correcting reading and writing difficulties*. Boston: Allyn & Bacon A Pearson Education Company.
- Hayashi, K. (1999). "Reading strategies and extensive reading in EFL classes," *RELC*, 30(2), 114-133.
- Hayes, B. L. (1991). *Effective strategies for teaching reading*. Boston: Allyn and Bacon a Division of Simon & Schuster, Inc.
- Intarasombat, P. (2002). *The effect of vocabulary development approach on Mathayomsuksa 4 students' English reading comprehension*. Unpublished master's thesis, Khon kaen University, Khon kaen, Thailand.
- Jesdapornpun, N. (2001). *A study of English reading proficiency of technical staff at Samart Comtech company limited, Thailand*. Unpublished master's thesis, Ramkhumhaeng University, Bangkok, Thailand.
- Johnson, B. E. (1994). *The Reading Edge: Thirteen ways to build reading comprehension*. Massachusetts: D.C. Health and Company.
- Kinzer, C. K., & Lue, D. J. (1995). *Effective reading instruction*. New Jersey: Merrill.

- Lipson, M. Y., & Wixson, K. K. 2<sup>nd</sup> ed. (1997). *Assessment and instruction of reading and writing disability: An interactive approach*. Boston: Addison-Wesley Educational Publishers Inc.
- Longsombun, A. (1999). *Achievement in English of Mathayomsuksa 6 students (Language Program) in government schools in educational region 1*. Unpublished master's thesis, Kasetsart University, Bangkok, Thailand.
- Mingsakoon, P. (2003). *A comparative study of vocabulary learning strategies between Mathayomsuksa 6 students in science and arts programs at Hunkhapittayakom school, Chainat Province*. Unpublished master's thesis, Mahidol University, Bangkok, Thailand.
- Ministry of Education. (2002). *Basic Education Curriculum B.E. 2544 (A.D.2001)*. Bangkok: Department of Curriculum and Instruction Development, Ministry of Education.
- Nakhonratchasima Provincial Operation Center. (2006). *Korat Management Information Systems*. Retrieved January 21, 2006 from [www.nakhonratchasima.go.th](http://www.nakhonratchasima.go.th)
- Nassaji, H. (2003). "L2 vocabulary learning from context: strategies, knowledge sources, and their relationship with success in L2 lexical inferencing," *Tesol Quarterly*, 37(4), 645-670.
- Nuttall, C. (2000). *Teaching reading skills in a foreign language*. Oxford: Macmillan Publishers Limited.
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston: Heinle & Heinle.
- O' Donnell, M. P., & Wood, M. (2004). *Becoming a reader: A developmental approach to reading instruction*. 3<sup>rd</sup> ed. Boston: Pearson Education, Inc.

- Paribakht, T. S. (2004). "The role of grammar in second language lexical processing," *RELC*, 35(2), 149-160.
- Polmanee, S., & Sinsuwan, P. (2001). *Needs and problems in English usage of graduate students in teaching Thai and social science compared with students in teaching English*. Unpublished master's thesis, Chiang Mai University, Bangkok, Thailand.
- Pumirat, T. (1992). *A study of ability to analyze to discourse types in English reading of Mathayomsuksa 6 students, Bangkok Metropolis*. Unpublished master's thesis, Chulalongkorn University, Bangkok, Thailand.
- Purisodom, C. (1999). *The English achievement of Mathyomsuksa six students in language programme in government schools, educational 3*. Unpublished master's thesis, Kasetsart University, Bangkok, Thailand.
- Qian, D.D. (1999). "Assessing the roles of depth and breadth of vocabulary knowledge in reading comprehension," *Canadian Modern Language Review*. 56(2).
- Rattanaseeha, N. (2007). *Implementing critical thinking to develop reading comprehension and to enhance living values for Mathayomsuksa 4 Students*. Unpublished master's thesis, Khon Kaen University, Khon Kaen, Thailand.
- Reanjaroenusuk, P. (1999). *An Investigation into the English vocabulary proficiency in a natural science context of first year arts and science oriented university students*. Unpublished master's thesis, Mahidol University, Bangkok, Thailand.
- Richardson, J. S., & Morgan, R. F. (2003). *Reading to learn in the content areas*. California: Wadsworth, A division of Thomson Learning, Inc.
- Roe, B. D., Stoodt, B. D., & Burns, P. C. (1998). *Secondary school literacy instruction: The content areas*. Boston: Houghton Mifflin Company.
- Ruangputtanakul, K., & Tongjai, W. (2006). *A study of state and problems in teaching reading by upper secondary school teachers under the Tak educational*

- service area*. Unpublished master's thesis, Naresuan University, Pisanulok, Thailand.
- Rubin, D. (1993). *A practical approach to teaching reading*. Boston: Allyn and Bacon.
- Satitporn, N. (1995). *An Experimental study of the role of extensive reading on the ability to acquire vocabulary and motivation of Mathayomsuksa 5 students at Thawangphapittayakom School in Nan Province*. Unpublished master's thesis, Mahidol University, Bangkok, Thailand.
- Schmitt, N., & McCarthy, M. (1997). *Vocabulary description, acquisition and pedagogy*. Cambridge: Cambridge University Press.
- Schmitt, N. (2000). *Vocabulary in language teaching*. Cambridge: Cambridge University Press.
- Seyler, D. U. (2004). *Steps to college reading*. New York: Pearson Education.
- Skidell, M. B., & Becker, S. G. (1996). *Main idea: Reading to learn*. Massachusetts: Allyn & Bacon A Simaon Schuster Company.
- Songsiri, S. (1999). *A case study English reading skills of grade 12 students*. Unpublished master's thesis, Ramkhamhaeng University, Bangkok, Thailand.
- Sritamai, R. (1993). *English linguistic competence of Mathayomsuksa 6 students in schools under the jurisdiction of the general education department*. Unpublished master's thesis, Chulalongkorn University, Bangkok, Thailand.
- Subphadoongchone, P. (2000). *Lexical guessing in a scientific context: a case study of first-year Mahidol science students*. Unpublished master's thesis, Mahidol University, Bangkok, Thailand.

- Sucompa, S. (1998). *A survey study of current needs and problems in using technical English for tourism for the higher certificate level students of Rajamangala Institute of Technology*. Unpublished master's thesis, Mahidol University, Bangkok, Thailand.
- Sutta, N. (1994). *An investigation of the ability in using reading comprehension skills in reading expository texts of the first year graduate students in the Master of Arts in teaching programs of Kasetsart University*. Unpublished master's thesis, Kasetsart University, Bangkok, Thailand.
- Tanghirunwat, C. (2003). *The reading difficulties faced by Thai engineers in telecommunication industry in reading English technical textbooks and manuals*. Unpublished master's thesis, The University of Thai Chamber of Commerce, Bangkok, Thailand.
- Thanamaimas, Werachai (2004). *The development of reading comprehension ability in English by using Direct reading Activity (DRA)*. Unpublished master's thesis, Khon Kaen University, Khon Kaen, Thailand.
- Thani, J. (1999). *Achievement in English of Mathayomsuksa 6 students (Language Program) in government schools in educational region 10*. Unpublished master's thesis, Kasetsart University, Bangkok, Thailand.
- Williams, E. (1994). *Reading in the language classroom*. China: Illustrations Macmillan Publishers.
- Wongsuwan, S. (1992). *The analysis of the problems concerning text reading skills of the Mathayomsuksa 6 students in the demonstration schools affiliated to the ministry of university affairs in Thailand*. Unpublished master's thesis, Mahidol University, Bangkok, Thailand.

Wood, K.D., & Bob, A. (1994). *Teaching reading to high-risk learners: A unified perspective*. USA: Allyn and Bacon A division of Simon & Schuster, Inc.

Youngsathien, P. (1999). *An achievement of learning English of Mathayomsuksa 6 students attending English curriculum in 1996 in public schools in Bangkok Metropolis*. Unpublished master's thesis, Kasetsart University, Bangkok, Thailand.

In Thai

กลีน สระทองเนียม. (2550, ตุลาคม-ธันวาคม). *ทำอย่างไรจะให้การอ่านกลายเป็นแฟชั่นสำหรับคนรุ่นใหม่*. วารสารวิชาการ 10(4): 15-20.

ดารกา ตันครองจันทร์ (2545, พฤศจิกายน). *ทำอย่างไรให้เด็กไทยรักการอ่าน*. วารสารวิชาการ. 5(11): 61-64.

มาลีณี จันวิมล, อ้อยทิพย์ กรมกุล, กิ่งกมน ทวีชาติวิทยากุล (2541). *การสำรวจความต้องการและเจตคติของบุคคลในสาขาอาชีพต่าง ๆ เกี่ยวกับความสำคัญของภาษาอังกฤษในงานอาชีพและชีวิตประจำวัน*. กรุงเทพฯ: สถาบันภาษา จุฬาลงกรณ์มหาวิทยาลัย

สุดี ภูประดิษฐ์ (2546). *เอกสารประกอบการสอนวิชาภาษาไทย ทย.211*. กรุงเทพฯ: ภาควิชาภาษาไทยและภาษาตะวันออก คณะมนุษยศาสตร์ มหาวิทยาลัยศรีนครินทรวิโรฒ ประสานมิตร



## APPENDIX

APPENDIX:  
READING TEST

## READING TEST

**Directions:** Read the following passage carefully and answer the question by choosing the best alternative for each question from A, B, C, or D.

### **Passage I: From Grape to Table**

5	<p>The subject of wine is a fascinating one to some! To others it may be a bore, and to others something that is quite incomprehensible, and <b>this</b> is a shame - - they simply don't know what they are missing. The loving thing about getting to know your wine is to drink it! <b>This</b> most pleasant of pastimes, coupled with a little concentration and intelligent observation, can be repaid with a great deal of enjoyment.</p>
10	<p>Quite simply wine is the fermented juice of the grape. Fermentation is the conversion, induced by yeast cells, of the grape sugar into alcohol - - and there you have wine.</p>
15	<p>The vines have lain <b>dormant</b> all winter. In early summer they flower and produce grapes which develop until autumn when they are ready to be harvested, and the <b>vintage</b> begins. The harvested grapes are pressed to extract the juice and the 'must' - - as the juice is called - - then ferments in huge vats for anything from two to fourteen days, depending on the quality of the wine to be produced. Red wines have</p>
20	<p>a longer fermentation period than white wines, as the whole grape is fermented within the juice to extract the full colour, flavour and tannin.</p> <p>Tannin is an important element in red wine. It enables the juice to be kept for long periods while it matures. There is little tannin in white grapes, so the juice is fermented without the skins and for a shorter period than for red wines.</p> <p>The 'must' in the vats seethes and bubbles during fermentation, and a close</p>

25	<p>watch has to be maintained on the temperature - - a fast, hot fermentation can spoil the wines, making them harsh and coarse. When all activity has <b>ceased</b>, the wines are run from the vats into barrels - - leaving behind the skins and sediment - - and <b>are left to settle for several months</b>.</p> <p>During this period new sediment, which is the <b>accumulation</b> of dead yeast cells, is forming all the time, so periodically the wine is run off into new barrels. This is called 'racking'. The final step in <b>eliminating</b> any cloudiness in the wine after racking, is 'fining'. Natural substances are added to collect any remaining particles and to ensure that the wine is clear and pure. Then it is ready for bottling.</p>
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1. The word "**this**" in line 2 means \_\_\_\_\_ .
  - A. the idea that the subject of wine is boring
  - B. the idea that the subject of wine is simple
  - C. the idea that the subject of wine is attractive
  - D. the idea that the subject of wine is boring and incomprehensible
  
2. The word "**This**" in line 4 refers to \_\_\_\_\_ .
  - A. drinking your wine
  - B. observing your wine
  - C. concentrating on your wine
  - D. getting to know your wine
  
3. The word "**dormant**" in line 10 means \_\_\_\_\_ .
 

A. inactive	B. busy
C. flowery	D. dropping the leaves

4. The word "**vintage**" in line 12 means\_\_\_\_\_.
- A. the pressing of the grapes  
 B. the process of wine making  
 C. the picking of the ripe grapes  
 D. the old fashioned method of wine making
5. The word "**ceased**" in line 22 means\_\_\_\_\_.
- A. stopped  
 B. occurred  
 C. continued  
 D. developed
6. The word "**accumulation**" in line 25 means\_\_\_\_\_.
- A. progress  
 B. build-up  
 C. decrease  
 D. reduction
7. The word "**eliminating**" in line 27 means\_\_\_\_\_.
- A. increasing  
 B. decreasing  
 C. removing  
 D. developing

**From no. 8-11 choose the best alternative which is closet in meaning to the given sentence**

8. Fermentation is the conversion, induced by yeast cells, of the grape sugar into alcohol.....
- A. wine is made from grape sugar.....  
 B. Yeast cells change themselves into alcohol.....  
 C. Grape sugar is produced from yeast cells.....  
 D. The grape sugar is converted into alcohol by yeast cells....
9. The "must" in the vats seethes and bubbles during fermentation, and a close watch has to be maintained on the temperature.....
- A. While the "must" is fermenting, watch the temperature.....

- B. Whenever the “must” seethes and babbles, maintain the temperature.....
  - C. When the “must” seethes, watch the fermented juice.....
  - D. The “must” bubbles because the temperature is high.....
10. When all activity has ceased, the wines are run from the vats into barrels.....
- A. The wines are activity run from vats into barrels.....
  - B. The activity has ceased after the wines are run into the barrels.....
  - C. The wines are run from vats into barrels while fermentation is in process.....
  - D. The wines are run from vats into barrels as soon as the fermentation process is over.....
11. During this period new sediment, which is the accumulation of dead yeast cells, is forming all the time, .....
- A. The new sediment takes place in a certain period of time,.....
  - B. The new sediment produces dead yeast cells, .....
  - C. The new sediment is a collective amount of dead yeast cells,.....
  - D. The new sediment forms a group of dead yeast cells,.....
12. What is the main idea of the passage?
- A. The preparation and bottling of wine
  - B. The fermentation of wine
  - C. How wine is made
  - D. How to select your wine
13. What can we infer from the first paragraph of the passage?
- A. Knowledge of wine is incomprehensible.
  - B. It is useless t understand about wine.
  - C. It is helpful to be able to select a good wine.
  - D. It is useful to acquire knowledge about wine.

14. What is suggested in the first paragraph of the passage?
- A. Lacking in knowledge of wine is a pity.
  - B. Wine drinking is a pleasant pastime.
  - C. There is a great deal of enjoyment in drinking wine.
  - D. It would be more enjoyable to drink wine with understanding of how wine is made.
15. What is the wine?
- A. Pure grape juice
  - B. A kind of grape juice
  - C. The grape juice processed into alcohol
  - D. A fruit juice extracted from grapes
16. What is the must?
- A. It is a kind of red wine in a vat.
  - B. It is the fermented grape juice.
  - C. It is the skin of grape after pressing.
  - D. It is juice extracted from pressed grapes.
17. What is the process right before the wine is put in vats to ferment?
- A. The grapes are harvested.
  - B. The grape juice is flavoured.
  - C. The grape juice is extracted.
  - D. The juice must be kept between two and fourteen days.
18. What makes the quality of wine?
- A. The quality of the grapes
  - B. The time used for fermentation
  - C. The way the juice is fermented
  - D. The amount of juice from the grapes

19. What are left to settle for settle for several months? (line 24)
- The wines
  - The must
  - The skins and sediment
  - The wines, skins, and sediment
20. What happens to the wine after racking and fining?
- The wine is bottled.
  - The wine is put into barrels.
  - The wine is ready to drink.
  - The wine has yeast cells added to it.
21. The steps in production of wine are: \_\_\_\_\_.
- pressing
  - fermenting
  - harvesting
  - bottling
  - transferring from vats to barrels
  - fining
  - further fermenting for several month
  - racking
- A. 3 1 2 5 7 6 8 4    B. 3 1 2 5 7 8 6 4  
C. 3 1 5 7 2 8 6 4    D. 3 1 5 2 7 6 8 4

**Passage II: Latchkey Children ..... Knock, Knock, Is Anybody Home?**

5	<p>In the United States the cost of living has been steadily rising for the past few decades. Because of this mothers have been leaving the traditional role of full-time homemaker, and taking full-time jobs outside the home. Mothers leave home in the morning and are not at home when their children return from school. The children must therefore let themselves in and this has given rise to the term 'latchkey children'.</p> <p>Latchkey children range in age from six to thirteen. On a daily basis they</p>
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10	<p>return from school and unlock the door to their home with the key hanging around their necks. They are now on their own, alone, in quiet, empty rooms. For some youngsters, it is a productive period of private time, while for others it is a frightening, lonely <b>void</b>. For reasons of safety, many parents forbid their children to go out to play or to have visitors at home. The youngsters, therefore, feel isolated.</p>
15	<p>Latchkey children who were interviewed reported diverse reactions. Some latchkey children said that being on their own for a few hours each day fostered, or stimulated, a sense of independence and responsibility. They felt loved and trusted, and this feeling encouraged them to be self-confident. Latchkey girls, by observing how their mothers coped with the demands of a family and job, learned the role model of a working mother. Some children stated that they used their unsupervised free time to perfect their athletics skills, <b>such as</b> playing basketball. Others read books or practiced a musical instrument. These children looked upon their free time after school</p>
20	<p>as an opportunity for personal development. It led to positive, productive, and valuable experiences.</p>
25	<p><b>Conversely</b>, many latchkey children expressed much bitterness, resentment, and anger for being made <b>to live in this fashion</b>. Many claimed that too much responsibility was placed on them at an early age; it was an overwhelming <b>burden</b>. They were little people who really wanted to be protected, encouraged, and cared for through attention from their mothers. Coming home to an empty house was disappointing, lonely, and often frightening. They felt <b>abandoned</b> by their mothers. After all, it seemed to them that most other children had ‘normal’ families whose mothers were ‘around’, whereas their own mothers were never home. Many children</p>
30	<p>turned on the television for the whole afternoon day after day, in order to diminish</p>





31. The word "**It**" in line 39 means \_\_\_\_\_.
- A. the family feeling
  - B. the inevitable changes
  - C. the members of the family
  - D. the advice to the member of the family
32. The word "**accessibility**" in line 43 means \_\_\_\_\_.
- A. knowing that they are in trouble
  - B. knowing that help will be available
  - C. knowing when their parents are not available for them
  - D. knowing where and how to get help when they are in trouble
33. "Latchkey girls by observing how their mothers coped with the demands of the family and the job, learned the role model of a working mother". (line 15-17) means \_\_\_\_\_.
- A. Latchkey girls caused families' problems
  - B. Latchkey girls observed their mothers' job
  - C. Latchkey girls learned the role of a working mother
  - D. Latchkey girls trained themselves to do the housework
34. What is the main idea of the passage?
- A. The effect of family income on the Latchkey children
  - B. The effect of being left alone on the lives of Latchkey children
  - C. The effect of their mother working on the lives of Latchkey children
  - D. The effect of the relationship between parents and children on the Latchkey children

35. What are Latchkey children?
- A. The children who get back home from school and unlock the house themselves
  - B. The children who prefer to be alone when they come home from school
  - C. The children who lock themselves in their room for most of the time
  - D. The children who are unwanted by their parents and learn to become independent
36. The main idea of passage 3 is that being alone has taught many latchkey children\_\_\_\_\_.
- A. to have valuable experiences
  - B. to be good at playing basketball
  - C. to be fond of going to school
  - D. to be able to do all the housework
37. For what reason did the children turn on the television?
- A. To avoid doing their homework
  - B. To get rid of the feeling of isolation
  - C. To comfort themselves with the voices
  - D. A combination of (b) and (c)
38. What is the main idea of paragraph 5?
- A. Whether or not mothers work full-time
  - B. How latchkey children cause problem in society
  - C. The necessity that families get rid of latchkey children
  - D. The effective plan to deal effectively in the problem of latchkey children
39. What is possible if the problem is solved?
- A. Children will be less at risk physically and mentally.
  - B. Children will be with their parents all the time.

- C. Children will be safe in any cases of emergency.
- D. Children will be competent like their mothers.
40. What is implied in this passage?
- A. Mothers could not work and must give all their time to their children.
- B. Mothers could work and make children feel secure that they are loved.
- C. Mothers could not work part-time and must spend the latter half of the day with their children.
- D. If mothers work full-time they cannot make satisfactory arrangement for their children.

**Passage III: Dietary Lessons from Human Evolution**

5	<p>Most of us have an impression of early man as a successful hunter who went out each day with a club over his shoulder to catch something for supper. Usually, however, early man came back empty-handed because most animals were simply too swift for a man armed with only a club. The real hero of the survival of the human species was not early man but early woman. She spent her days gathering fruits, nuts, seeds, tubers, roots, berries, beans, and grains and made meals for the early human family out of complex carbohydrates starchy foods - - and fresh fruits and vegetables. Feasts of meat were occasional, only when her mate was lucky enough to bag a mole or lizard.</p>
10	<p>Until recently, archaeological evidence had greatly exaggerated the role of meat in the diets of prehumans and prehistoric humans because animal bones are far better preserved in the rocky fossil record than are softer plant materials. However, in the last decade or so, anthropologists and archaeologists have devised some ingenious techniques that clearly reveal the vegetarian emphasis of our <b><u>progenitors</u></b>.</p>



**From no. 43-46 choose the best alternative which is closest in meaning to the given sentence.**

43. Dairy products did not become a significant part of the diet until the domestication of cattle, about 10,000 years ago.
- A. Cattle produced dairy products 10,000 years ago.
  - B. When the cattle become significant, dairy products, meat become a large part of the dairy food.
  - C. When cattle become dairy products, meat become a large part of the dairy food.
  - D. When cattle were domesticated, dairy products become a large part of the daily food.
44. She spent her days gathering fruits, nuts, seeds, tubers, roots, berries, beans, and grains and made meals for the early human family out of complex carbohydrates – and fresh fruit and vegetables.
- A. She made meals out of carbohydrates, fresh fruits, and vegetables.
  - B. While she went out looking for food she made meals for the family.
  - C. She made meals for the family before she went out looking for food.
  - D. She made food for the family from fruit and vegetables which she found every day.
45. Analyses of fossils of human faeces were deposited 300,000 years ago reveal that our human ancestors subsisted primarily on a vegetable diet.
- A. Fossils of human faeces were deposited 300.000 years ago.
  - B. Fossils deposited 300,000years ago have been analyzed as human faeces.
  - C. We know our ancestors were vegetarians from analyzes of fossilized human faeces that were deposited 300,000 year ago.



- D. Human faeces have become fossilized after being deposited for 300,000 years and this shows that our ancestors were vegetarians.
46. Even then, meat was not the central item in the diet. Plants were.
- A. Our ancestors liked to eat plant foods.
  - B. Plants were considered better than meat as food.
  - C. Meat and vegetables were half and half in the meal.
  - D. Vegetables were the main part of a meal, meat was not.
47. The writer uses "**For example**" in line 15 to \_\_\_\_\_.
- A. define anthropology and archaeology
  - B. give evidence of the ingenious techniques
  - C. describe the immediate ancestors of our species
  - D. report the result of the "microscopic studies" of fossilized teeth
48. The writer uses "**In short**" in line 29 to \_\_\_\_\_.
- A. introduce a new idea
  - B. conclude the last paragraph
  - C. change the old belief
  - D. stress the need for "meat"
49. From the passage we can infer that originally early humans were thought that\_\_\_\_\_.
- A. they ate only meat
  - B. they were good animal hunters
  - C. they ate mainly vegetables
  - D. women were less dominant partners in the family
50. What would happen if human species depended largely on animal protein for their survival?
- A. They would be extinct.
  - B. They would have strong teeth.

- C. They would not have planted vegetables.
- D. They would have raised various kinds of animals.

## Answer Keys

Passage I	Passage II	Passage III
1. (D)	22. (D)	41. (A)
2. (A)	23. (C)	42. (A)
3. (A)	24. (D)	43. (D)
4. (C)	25. (B)	44. (D)
5. (A)	26. (A)	45. (C)
6. (B)	27. (C)	46. (D)
7. (C)	28. (A)	47. (B)
8. (D)	29. (C)	48. (B)
9. (A)	30. (B)	49. (C)
10. (D)	31. (D)	50. (A)
11. (C)	32. (D)	
12. (C)	33. (C)	
13. (D)	34. (B)	
14. (D)	35. (A)	
15. (C)	36. (A)	
16. (D)	37. (D)	
17. (C)	38. (D)	
18. (B)	39. (A)	
19. (A)	40. (B)	
20. (A)		
21. (B)		

VITAE

## VITAE

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