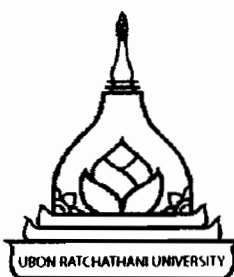




**THAI ENGLISH AS A FOREIGN LANGUAGE LEARNERS'
DIFFICULTIES IN USING CONTEXT CLUES
TO UNDERSTAND UNFAMILIAR WORDS**

JINTANAPORN PASADEE

**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL FULFILLMENT OF
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MAJOR IN TEACHING ENGLISH AS A FOREIGN LANGUAGE
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TITLE THAI ENGLISH AS A FOREIGN LANGUAGE LEARNERS'
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UNFAMILIAR WORDS

AUTHOR MISS JINTANAPORN PASADEE

EXAMINATION COMMITTEE

DR. LUGSAMEE NUAMTHANOM KIMURA	CHAIRPERSON
DR. TIKAMPORN WUTTIORNPNONG	MEMBER
DR. WACHIRAPORN KIJPOONPHOL	MEMBER

ADVISOR

T. Wuttiornpong
.....

(DR. TIKAMPORN WUTTIORNPNONG)

Manorom
.....

(ASSOC. PROF. DR. KANOKWAN MANOROM)

DEAN, FACULTY OF LIBERAL ARTS

A. Pongrat
.....

(ASSOC. PROF. DR. ARIYAPORN PONGRAT)

VICE PRESIDENT FOR ACADEMIC AFFAIRS

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Jintanaporn Pasadee
Researcher

บทคัดย่อ

ชื่อเรื่อง	: ปัญหาของผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศในการใช้คำในบริบทเพื่อเดาความหมายของคำศัพท์ที่ไม่คุ้นเคย
โดย	: จินตนาภรณ์ ภาษาดี
ชื่อปริญญา	: ศิลปศาสตรมหาบัณฑิต
สาขาวิชา	: การสอนภาษาอังกฤษเป็นภาษาต่างประเทศ
อาจารย์ที่ปรึกษา	: ดร. จิรัชัมพร วุฒิพรพงษ์
คำสำคัญ	: Difficulties, Context Clues, Unfamiliar Words

การศึกษาค้นคว้าครั้งนี้มีจุดมุ่งหมายคือ (1) เพื่อศึกษาว่าการใช้คำช่วยในบริบท (context clues) มีประโยชน์ต่อนักเรียนไทยชั้นมัธยมศึกษาปีที่ 6 ในฐานะผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศในการเดาความหมายของคำศัพท์ที่ไม่คุ้นเคยหรือไม่ และ (2) เพื่อศึกษาปัญหาของผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศในการใช้คำในบริบทเพื่อเดาความหมายของคำศัพท์ที่ไม่คุ้นเคย กลุ่มตัวอย่างที่ใช้ในการศึกษาค้นคว้าครั้งนี้คือ นักเรียนชั้นมัธยมศึกษาปีที่ 6 โรงเรียนโคกยางวิทยา จังหวัดสุรินทร์ ภาคเรียนที่ 1 ปีการศึกษา 2557 เครื่องมือที่ใช้ในการศึกษาค้นคว้าคือเอกสารประกอบการเรียนเกี่ยวกับการใช้คำช่วยในบริบทเพื่อเดาความหมายของคำศัพท์ที่ไม่คุ้นเคย แบบทดสอบคำศัพท์ และแบบทดสอบการใช้คำช่วยในบริบทเพื่อเดาความหมายของคำศัพท์ที่ไม่คุ้นเคย ซึ่งประกอบด้วยแบบทดสอบรูปแบบที่ 1 (ไม่มีอิทธิพลคำศัพท์) และแบบทดสอบรูปแบบที่ 2 (มีอิทธิพลคำศัพท์) กลุ่มตัวอย่างศึกษาและฝึกฝนการใช้คำช่วยในบริบทเพื่อเดาความหมายของคำศัพท์ที่ไม่คุ้นเคยสี่แบบ คือ การให้คำจำกัดความหรือการใช้คำเหมือน การยกตัวอย่าง การเปรียบเทียบต่างๆ และการแสดงผลที่เกิดขึ้นจากนั้นกลุ่มตัวอย่างทำแบบทดสอบคำศัพท์ และแบบทดสอบการใช้คำในบริบทรูปแบบที่ 1 และ 2 ตามลำดับ

ผลการศึกษาปรากฏว่า (1) การใช้คำช่วยในบริบทแทบจะไม่สามารถช่วยผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศในการเดาความหมายของคำศัพท์ที่ไม่คุ้นเคย (2) ความรู้ด้านคำศัพท์และความรู้ด้านโครงสร้างประโยคมีความสำคัญกว่าเมื่อเป็นเรื่องเกี่ยวกับการช่วยผู้เรียนเดาความหมายของคำศัพท์ที่ไม่คุ้นเคยและ (3) ปัญหาของผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศในการใช้คำช่วยในบริบทเพื่อเดาความหมายของคำศัพท์ที่ไม่คุ้นเคย ได้แก่ การมีความรู้ด้านคำศัพท์ไม่เพียงพอ ความซับซ้อนของโครงสร้างประโยค การไม่ทราบคำในบริบทเพื่อช่วยในการเดาคำศัพท์ที่ไม่คุ้นเคย การขาดความรู้เกี่ยวกับเรื่องที่อ่าน และการเลือกคำช่วยในบริบทผิด

ABSTRACT

TITLE : THAI ENGLISH AS A FOREIGN LANGUAGE LEARNERS'
DIFFICULTIES IN USING CONTEXT CLUES TO
UNDERSTAND UNFAMILIAR WORDS

AUTHOR : JINTANAPORN PASADEE

DEGREE : MASTER OF ARTS

MAJOR : TEACHING ENGLISH AS A FOREIGN LANGUAGE

CHAIR : TIKAMPORN WUTTIPORNPONG, Ph. D.

KEYWORDS : DIFFICULTIES, CONTEXT CLUES, UNFAMILIAR WORDS

The purpose of the study was (1) to investigate whether context clues can benefit Thai grade 12 high school EFL students in guessing the meanings of unfamiliar words, and (2) to investigate the students' difficulties in using context clues to guess the meanings of unfamiliar words. The participants were 60 grade 12 students at Khokyangwittaya School, Surin province, in the first semester of the academic year 2014. The research instruments were handouts about context clues, vocabulary test, and two context clue tests: version 1 (without glossary in Thai) and version 2 (with glossary in Thai provided). The participants practiced the use of four types of context clues: definition or synonym, example, contrast, and effect. Then the vocabulary test and the context clue tests: versions 1 and 2 were administered to the participants.

The results revealed that (1) context clues hardly benefited the participants in guessing the meanings of the unfamiliar words, (2) vocabulary knowledge and sentence structure knowledge are more essential when it comes to helping learners' guessing the meaning of unfamiliar words and (3) the students' difficulties in using context clues to guess the meanings of unfamiliar words included having insufficient vocabulary knowledge, complexity of sentence structures, inability to recognize context clues, a lack of background knowledge, and taking the wrong clues.

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CHAPTER 1

INTRODUCTION

This chapter presents the study's rationale, research questions, purpose, significance and scope and the definitions of key terms.

1.1 Rationale

In foreign language learning, reading is the significant way which allows learners to connect with the language since they rarely have opportunities to speak or write in the second language (L2) outside the classroom (Rahmani, 2007). Thus English as a Foreign Language (EFL) learners should improve their skills to become proficient readers. To achieve this, vocabulary knowledge is a necessary element (Ediger, n.d. cited in Murcia, 2001). Derakhshan and Shahrzad (2011: 68) said that "Poor vocabulary frequently leads to incorrect inferences or misunderstanding of the content when the readers read English materials". Therefore, the students should be aware that vocabulary knowledge is necessary to succeed in reading and try to improve it to be proficient readers.

Many strategies can help learners to increase their English vocabulary knowledge and enable them to guess the meaning of unfamiliar words that they encounter in the texts. Research has shown that an effective strategy considered as a useful tool in teaching and learning reading is context clues. Guessing meaning of unfamiliar words from the context is one of the most useful skills that L2 learners can acquire and apply inside and outside the classroom (Thornbury, 2002 cited in Askari & Shokouhi, 2010). In addition, using context clues helps learners to figure out the meanings of unfamiliar words and make them become more aware of relationships between the words' meanings in sentences and paragraphs. Moreover, using context clues is not only a strategy for vocabulary improvement at a sentence level but also for comprehension improvement in reading texts (Itthipanya, 2005). As a matter of fact, learning words in context helps the learners acquire linguistic knowledge of words such as phonetic, syntactic and semantic rules, and the knowledge of how to use the words correctly in

contexts (Amirian & Momeni, 2012). Furthermore, finding meaning of vocabulary from contexts can encourage learners to try to find out how the word is used and associated with other words within a given text (Hayati & Shahriari, 2010). Therefore, using context clues is beneficial for L2 readers to guess the meanings of difficult or unfamiliar words effectively.

While a number of research studies in first language (L1) and L2 vocabulary acquisition revealed that learners could infer the word meaning by using context clues, some other research suggested the limitations to the values of context clues. A reader may also infer a word's definition by using context clues combined with their own logic or prior knowledge (Hartmann & Blass, 2007 cited in Reardon, 2011). In contrast, the most difficult task for students when trying to use contextual clues is confusion in determining the clues in a sentence, which causes choosing the wrong words for the clues and making mistakes in responding the questions (Ali et al., 2012). Consequently, context may not always be helpful for getting the right meaning of new lexicon (Zaid, 2009) because students do not know clues in the sentences and they choose wrong words to be clues. Also, confused or unclear contexts are not useful for making correct inferences of the meanings of new lexicon (Schatz & Baldwin, 1986; Stein, 1993 cited in Zaid, 2009). Hence, although using context clues to understand unfamiliar words can help learners guess meanings of unfamiliar words, learners may encounter difficulties, and little attention has been paid to investigating the obstacles in using context clues.

In EFL learning contexts, low proficient readers always find many or even most words unfamiliar when they read L2 texts, either in a pleasure reading, an academic course, or language vocabulary tests. In natural communication situations, learners often are faced with unfamiliar lexical items, and they must find ways to guess the meaning to understand the message adequately (Abdollahzadeh & Sadeghi, 2012). In Ordinary National Educational Test (O-NET), Thai students are required to take a vocabulary test and reading comprehension test in which they need to use context clues knowledge in completing the tests. Educational Testing Service (2008: 57) stated that "the test takers who receive a score at the LOW level have a command of basic academic vocabulary, but their understanding of less common vocabulary is inconsistent" and the poor readers obtained lower SAT (Scholastic Aptitude Test)

scores than the good readers (Cainl & Oakhill, 2006). Hence, low vocabulary or poor reading skills cause low test scores.

The researcher, as an English teacher, realizes that learners lack vocabulary knowledge and they cannot understand unfamiliar words in texts when they read, and take a vocabulary test and reading comprehension test. This is evident from the result of O-NET of M.6 students (at Khokyangwittaya School) in academic year 2013 which showed that most students gained low scores (18.98%) (National Institute of Educational Testing Service, 2013). The students reported that this is because they have inadequate knowledge of vocabulary for reading comprehension. The researcher realizes that if teachers can help the students guess the meaning of unfamiliar words, they can better improve their reading.

In helping L2 readers to cope with unfamiliar words, many researchers suggested that using context clues can help students to get meaning of words and improve reading comprehension. Thus, it is worthwhile to investigate whether context clues can benefit to EFL learners in guessing the meaning of unfamiliar words, and EFL learners' difficulties in using context clues to guess or understand the meaning of unfamiliar words in English texts. The results of the present study are expected to provide useful information to help teachers realize some common difficulties or problems that students encounter while trying to make use of context clues of different types so that teachers can find effective ways to help the learners overcome these difficulties.

1.2 Research Questions

There are three research questions:

1.2.1 Can context clues benefit Thai grade 12 high school EFL students in guessing the meanings of unfamiliar words?

1.2.2 What are the common difficulties that Thai grade 12 high school EFL students encounter when using context clues to guess the meaning of unfamiliar words?

1.3 Purpose of the Study

The present study aims to investigate whether context clues can benefit Thai grade 12 high school EFL students in guessing the meaning of unfamiliar words. It also investigates Thai grade 12 high school EFL students' difficulties in using context clues to guess the meaning of unfamiliar words. The present study attempts to find out and explore possible sources of these difficulties.

1.4 Significance of the Study

This research studies EFL learners' using context clues to guess the meaning of unfamiliar words in reading passages. The study considers four types of context clues which are commonly found in English passages, definition or synonym clue, example clue, contrast clue, and effect clue. This research asks students to identify difficulties while they are actually reading English sentences, dealing with comprehending texts, and making use of clues. It is anticipated that the results of the study could act as a guideline to improve teaching and learning using context clues to help L1 learners understand unfamiliar words and achieve L2 reading comprehension. In this way, language teachers may be better aware of specific difficulties in using context clues to understand unfamiliar words and find effective ways to minimize these difficulties and enhance learners' ability to guess meaning of vocabulary in the future.

1.5 Scope of the Study

The present study investigated 60 grade 12 students at Khokyangwittaya School, Surin province, in the first semester of the academic year 2014. At the time of data collection, they were studying in a compulsory English course. The students spent 50 minutes to complete the context clue tests which required them to read the whole sentences and circle unknown word(s), try to translate the whole sentences into Thai, identify the major context clues or signals that helped them know or guess the meaning of the highlighted words, and explain what difficulties they encountered if they did not know the meaning of the highlighted words.

The present study explored four types of context clues (see above), thus the results of this study are associated with benefits and difficulties in using these four types of context clues for this group of 60 students. The study does not cater for all possible

difficulties and common difficulties by Thai EFL learners in general but it may provide guidelines and stimulus for further study.

1.6 Definitions of Key Terms

Nutthakrai (2006) indicated that context clues refer to words, phrases, sentences, or punctuation around an unfamiliar word that can help L1 readers understand the meaning of unfamiliar words in L2 texts clearly. The present study aims to investigate context clues and signals separately, so the operational definitions of the terminology used are modified to suit the purpose of the study as follows:

1.6.1 Context clues refer to any content words, phrases, or sentences around unfamiliar words which come before or after the signals expected to help readers understand the meaning of unfamiliar words in the texts.

1.6.2 Signals refer to words and punctuations which signal or hint to the readers the ideas proposed in the sentence (e.g. definition, examples, comparison and contrast and cause and effect). They also help the readers understand the relationship between clauses and ideas in the sentences.

Details of types of context clues and signals which are investigated in this study are shown in Chapter 2 on page 14-17.

CHAPTER 2

LITERATURE REVIEW

This chapter reviews relevant information about benefits of context clues to Thai EFL learners in guessing the meaning of unfamiliar words and Thai EFL learners' difficulties in using context clues to guess the meaning of unfamiliar words and consists of sections involving reading processes, the roles of vocabulary, sentence structure and background knowledge in reading, context clues and previous studies.

2.1 Reading processes

Reading is "a process of readers combining information from a text and their own background knowledge to build meaning" (Nunan, 2003 cited in Saropa, 2009). Thus, the reading process comprises looking at the print, decoding the written symbols on the page, deciding what they mean and how they relate to each other and also thinking about what the reader is reading. This process leads to comprehension in which the reader uses past experiences and cognitive abilities to understand what the writer has sent (Alderson, 2002 cited in Rhamani, 2007). Many researchers, such as Goodman (1967) & Smith (1971), Grabe (1991), and Lynch & Hudson (1991) cited in Rahmani, 2007; Lipson & Wixson (1991) and Vacca, et al (1991) cited in Saropa (2009) stated reading processes which can be summarized three categories, bottom-up, top-down, and interactive processes.

2.1.1 Bottom-up process

The bottom-up process occurs when the reader builds up a meaning from the written words on the page by recognizing letters and words, and working out sentence structure (Nuttal, 2005). At the same time, the reader uses some information already presented in the text and realizes the meaning which resides in and is inferred by the text (Bagheridoust et al. cited in Gorjian, et al., n.d.). The bottom-up process is related to prior knowledge of the language system such as phonology, grammar and

vocabulary (Saropa, 2009), and other linguistic signals such as “letters, morphemes, syllables, words, phrases, grammatical cues, or discourse markers” (Brown, 2007 cited in Mankato, n.d.). In the bottom-up process, the reader firstly identifies the written letters and then recognizes them. After that, the reader combines letters to recognize spelling patterns and connects these spelling patterns to recognize words, phrases, sentences, and longer texts to decode meanings (Alderson, 2002; Boothe et al., cited in Rahmani, 2007).

The bottom-up process is criticized by many researchers as being too hard for a reader’s short-term or working memory (Gough, 1972 cited in Rahmani, 2007). Other criticism include the fact that sometimes the same letter is pronounced differently in different contexts, and that the process ignores the role of the sentence-context and the reader’s prior knowledge in understanding word meaning (Abisamara, 2001 cited in Rahmani, 2007). Furthermore, the bottom-up process is inadequate since there is an under-estimation of an individual reader who makes predictions and processes information and it neglects a student who uses their expectations about the text based on their knowledge of the language (Eskey, 1973 cited in Rahmani, 2007).

2.1.2 Top-down process

The top-down process occurs when readers use their background knowledge and expectations which they already have about the topic (Gorjian, et al., n.d.; Treiman, 2001). The reader often uses their intelligence and experience, or performs predictions which they make based on knowledge they have obtained to understand the text (Nuttal, 2005). In addition, the top-down process is concerned with activation of schematic knowledge and contextual knowledge. Schematic knowledge consists of two types of prior knowledge, content schemata that includes background information on the topic, and formal schemata that relates to how discourse is organized with respect to different genres, topics, or purposes, including relevant socio-cultural information. In contrast, contextual knowledge relates to an understanding of the specific reading situation (Saropa, 2009). Thus, in the top-down process, the reader uses their knowledge of syntax and semantics to reduce their dependence on the print and phonics of the text. Furthermore, the reader uses the context to guess the meaning of unknown words, previewing, and making predictions (Rahmani, 2007).

Some researchers believe that the top-down process plays an important role in reading (Treiman, 2001) but it has disadvantages, for example, the reader does not sometimes have the knowledge about the topic of the text they are reading so they cannot generate predictions and although the reader can make predictions, this takes much longer than word recognition (Stanovich, 1980 cited in Rahmani, 2007).

2.1.3 Interactive process

The interactive process is the process of interpreting printed symbols as meanings which involves making use of both prior knowledge and the printed symbols (Vacca, et al. cited in Saropa, 2009). In other words, the interactive process is initiated by making predictions about the meanings of or decoding graphic symbols, a combination of the bottom-up and top-down processes (Stanovich, 2003 cited in Saropa, 2009), as are used to complement each other (Nuttal, 2005). The reader can adopt the top-down process to predict the probable meaning, and then they can move to the bottom-up to check whether the truth of the writer's communication (Nuttal, 2005). Thus, the bottom-up and the top-down processes are used concurrently in processing information (Rumelhart, 1980 cited in Andayani & Rasdyati, 2001).

In short, the bottom-up process is related to what the reader can understand in the text from letters and words on the printed page. On the other hand, the top-down process is associated with what readers can understand and interpret from the text by using their background knowledge. Furthermore, the bottom-up process is related to syntactic clues as the reader uses general syntactic knowledge, for instance, vocabulary and grammar, to comprehend reading text easily, whereas the top-down process is concerned with semantic clues as the reader uses their prediction based on background knowledge to predict the meaning of unknown or unfamiliar words (Saropa, 2009). The use of the bottom-up and the top-down processes separately presumably causes difficulties hence the reader should use both processes concurrently, the top-down process to foresee the meaning, and the bottom-up to check the correctness of the writer's communication. This is the interactive process which plays an essential role in describing the reading process and is useful to identify different reading difficulties at different stages and/or processes to help the reader to improve reading skills or sub skills.

In reading achievement, the readers not only use bottom-up, top-down, and interactive processes, but also they use inference skill which is important for reading comprehension (Kispal, 2008). The readers must combine the information the writers have written with their own experiences in inferring meaning (Preszler, 2006) in order to create meaning that is not directly stated in the text (Dole, Duffy, Roehler, & Pearson, 1991 cited in Zwiers, 2010). The readers use prior knowledge to make inferences about the text and to make sense of what they are reading (Preszler, 2006). Furthermore, Kispal (2008: 2) pointed out that “poor inferencing causes poor comprehension and not vice versa”. Thus, inference meaning is important and necessary to reading.

2.2 The Roles of Vocabulary, Sentence Structure and Background Knowledge in Reading

Limited knowledge of vocabulary and of sentence structure (Gunning, 2002 cited in Chawwang, 2008) and the reader’s background knowledge (Marshall and Gilmour, 1993 cited in Rahmani, 2007) are considered as the impediments of reading comprehension. Thus, vocabulary and sentence structure knowledge and background knowledge are essential for reading achievement.

An EFL reader of low proficiency generally faces unknown words when they read either for pleasure or academic purpose (Shen, 2007). Unfamiliar vocabulary causes miscomprehension and learning vocabulary helps a learner to be able to read faster and more fluently (Leyla, 2006). The more vocabulary readers know, the better they will be at decoding and guessing the meanings of the texts (Chou & Tze, 2011). Furthermore, “having a larger vocabulary gives the learner a larger database from which to guess the meaning of the unknown words or behavior of newly learned words, having deeper vocabulary knowledge will very likely improve the results of the guessing work” (Qian, 2002, cited in Chou & Tze, 2011: 110). If the learners do not have certain amount of vocabulary knowledge, they cannot understand a reading passage (Rahmani, 2007). Hirsch (2003) agreed that adequate reading comprehension depends on knowing between 90 and 95 percent of the words in a text. It is hypothesized that text coverage is necessary to reading comprehension. This indicates that vocabulary knowledge is greatly significant to facilitate the comprehension of

texts, and when an L2 reader does not understand word meanings, they fail to comprehend the text (Mart, 2012). Thus, vocabulary knowledge is essential for success in reading.

In addition, reading can enhance vocabulary knowledge. When the reader encounters unfamiliar words in the text, words surrounding can direct the reader to the meaning of the unknown words, and frequency of exposure to words leads to success of vocabulary acquisition (Sedita, 2005). Moreover, “the more children read, the greater their vocabulary and the better their cognitive skills.” (Cunningham & Stanovich, 2003: 34). Consequently, reading builds vocabulary and increases the ability to read fluently. It is evident that vocabulary and reading are closely related. A language learner who has inadequate vocabulary commonly faces difficulty in constructing meanings for words. Without adequate vocabulary knowledge, it is unlikely that comprehension of text and ultimately reading comprehension will be attained.

It is not only knowledge of vocabulary that is very useful for reading comprehension, but also the knowledge of sentence structure. The sentence structure is the knowledge of sentence syntax or word order, which is used to determine the meaning of sentences and the grammatical function of a word (Chawwang, 2008). Complex and very long sentences cause difficulties in reading comprehension for EFL learners. The sentences which contain many clauses or reduced clauses are complex sentences. Cohesive words (e.g. however, because, thus, although, and furthermore) existing in the sentences make them complex (Aebersold & Field, 1997, cited in Chawwang, 2008). In addition, the main causes of difficulties in learners’ reading comprehension include complex noun groups, nominalizations, coordinating conjunctions, participial phrases, and prepositional phrases because they make texts complex and difficult to understand (Nuttall, 2000, cited in Chawwang, 2008). This shows that the lack of knowledge of complex structures of language leads to reading problems for ESL/EFL students and interferes with the reading success of students (Day & Bamford, 1998 cited in Chawwang, 2008). In other words, “the more complex it is, the more confused non-native English readers will be” (Pinijsakkul, 2007: 4). Complex and very long sentences cause difficulties in reading comprehension for EFL learners. Therefore, sentence structures knowledge is very important for reading.

In addition, background knowledge is significant for reading comprehension. Background knowledge includes topic familiarity, knowledge in the terminologies, and vocabulary involved in the topic (Chou & Tze, 2011). The readers who have rich prior knowledge about the topic of a reading text often understand better than those who have low prior knowledge (Rahmani, 2007). They use background knowledge to integrate new information from a text into their prior information (Chawwang, 2008). If students do not have prior knowledge of the topic, it is impossible for them to know all the words in a passage and still not make any sense of it (Sedita, 2005). A lack of background knowledge about texts makes the students unable to understand the texts. Hence, background knowledge is another important factor affecting reading achievement.

2.3 Context Clues

Context clues are “linguistic hints about the meaning of an unknown word that can be found in the text surrounding the word” (Armbruster et al., 2001 cited in Krasaekarn, 2008: 3). Specifically, context clues can be defined as “morphological, syntactic, and discourse information in a given text which can be classified and described in terms of general features” (Nation & Coady, 1988 cited in Andayani & Rasdyati, 2001). Students generally use context clues when they learn word meanings incidentally by using the surrounding context or by a word learning strategy that they have been taught explicitly (Rhoder & Huerster, 2002 cited in Hibbard, 2009). The students can use context clues to help them deduce the meanings of unknown words within the text (Reardon, 2011). In other words, information which serves as context clues should be constructed in simplified forms to make the reader simply understand the texts. To be successful in interpreting words from the context, the learner has to recognize several thousand high-frequency words (Hunt, 1996 cited in Shen, 2007).

2.3.1 Significance and Difficulties of Using Context Clues

Context clues are significant to language learning in a variety of aspects. One of the most effectively employed strategies is guessing the meaning of a word from the context (Ozek’s research, 2006 cited in Gorjian, Hayati & Sheykhiani, n.d.). Using context clues to determine the meaning of unfamiliar words is a necessary factor of success in reading. It is a useful tool for a teacher to enlarge a student’s

vocabulary knowledge through reading. Moreover, it helps the student to gain knowledge of semantic links, which help them in remembering vocabulary items (Zhou, 2010). By contextual guessing, a reader can identify key words in reading and can encourage themselves to make semantic predictions about such words (Gorjian, Hayati & Sheykhiyani, n.d.). The use of context clues does not only unlock the meaning of unfamiliar words, but it is also very useful for a reader when they encounter texts that are not matched to their own experience or background knowledge or when a piece of writing they read is not well organized or irrelevant (Robinson, 1976 cited in Saropa, 2009). Research has shown that learning to use context clues has a positive impact on a learner's reading comprehension in using context clues to help understand unknown vocabulary words and has a positive effect on an adult's reading comprehension in combining the use of context clues with prior knowledge for the application of context clues to their reading (Reardon, 2011). In addition, it is generally recommended that strategies of using context clues should be taught to English learners to enable them to be fluent in defining the meaning of words and have a good attitude toward learning English (Nuttakrai, 2006).

The present study now highlights a number of potential problems associated with the use of context clues. Many factors interfere with the reader's attempts to guess word meanings.

The first factor involves a lack of context clues. The availability of clear context clues around unknown words is not always certain (Laufer, 1997 cited in Rahmani, 2007). Vague, ambiguous, or misleading context itself seems not beneficial (Frantzen's 2003 cited in Shen, 2007). Thus, the learner cannot always guess the word meaning from contexts.

The second factor is unusable context clues. In some cases, context clues exist in the reading text but the learner cannot use them because they occur in unfamiliar words. In other words, familiarity with words is important for successful guessing word meaning.

The third problem is misleading and partial clues. Words that seem to be composed of meaningful parts of clues are in the text, but the clues are misleading. This appears in morphological clues. For example, the word "shortcomings," which

looks like a compound of “short” and “comings” and indicates a meaning that appears to be “short visits,” but its correct meaning is “weak points.”

The last factor which leads to unsuccessful guessing is a deficiency in the reader’s background knowledge of the topic of the text being read. The reader who has no background knowledge about what they are reading cannot use context clues to guess word meanings (Laufer, 1997 cited in Rahmani, 2007).

Moreover, guessing word meanings from contextual clues is difficult if the reader has insufficient vocabulary, causing an inability to understand words correctly and causing an impediment to text comprehension. Also, an insufficient number of words in the learners’ lexicon stops the readers from becoming an efficient reader (Laufer, 1997 cited in Shen, 2007). Difficulties in using context clues often result from the learner having little vocabulary knowledge (Andayani & Rasdyati, 2001) and insufficient grammar knowledge (Suppadoongchon, 2000 cited in Pannara, 2008). Guessing words using context clues is a slow process (Li and Xu, 2011) as the student spends much time in the process (Tim-tim, 2008).

Several studies revealed that the student seldom guesses the correct meanings. They face problems in understanding words’ meanings by using semantic clues. The student misunderstands the meanings of surrounding words, often misinterpreting the clues and obtaining incorrect meanings of words. In addition, the student sometimes takes wrong clues. Despite knowing the meaning of surrounding words, phrases, or sentences in the text, incorrect guessing still exists. The student might fail to get the right meaning since they take the wrong clues in inferring meaning (Andayani & Rasdyati, 2001).

Thus, guessing words meanings from context clues is perhaps not the most effective strategy. Students often encounter many difficulties and they are not able to succeed in using context clues to get the meanings of unfamiliar words.

2.3.2 Types of Context Clue: Syntactic and Semantic Clues

Context clues can be classified into two main types, syntactic clues and semantic clues. The present study focused on the investigation of semantic clues. Thus, the syntactic clues are presented briefly and the semantic clues are presented in details as follows.

2.3.2.1 Syntactic clues

Burns (1984, cited in Saropa, 2009) stated that syntactic clues are composed of grammar or syntax and refer to the adoption of knowledge of grammar in defining unknown words (Andayani & Rasdyati, 2001). They are involved directly with grammatical clues. A student can employ syntax if they have a basic knowledge of grammar. Syntactic clues refer to patterns/functions of words, inflectional clues, and markers (noun marker, verb marker, phrase marker, and clause marker) (Robinson, 1976 cited in Saropa, 2009).

2.3.2.2 Semantic clues

Semantic clues are concerned with the guessing of the meanings of unknown words based on surrounding words, phrases, and sentences (Andayani & Rasdyati, 2001; Burns, 1984 cited in Saropa, 2009). They generally involve ten factors, which are anaphoric relation, restatement, word explained through examples or illustrations, contrast and comparison, figures of speech (making abstract and uncommon ideas such as idioms, hyperbole, and euphemisms, to be more concrete), cause and effect, condition, definition, implication, and summary (Itthipanya, 2005). This study covers only four types, definition or synonym clue (deriving from combining definition, restatement, and synonym clues together), example clue, contrast clue, and effect clue.

1) Definition clues

Definition clues directly defined words by the use of other known, simple, or familiar words as signal words, such as *verb to be*, *mean(s)*, *refer to*, *is /are defined as*; *described as*; *known as*, *is/ are called*, *called*, *what this means is*, *consist(s) of*, *may be seen as*; *described as*, *can be defined as*; *thought of*, *comma (,)*, *dash (-)*, and *parentheses* (Nutthakrai, 2006; Blanchard & Root (2005) cited in Pannara, 2008; Nuttall (1982), Sternberg & Powel (1983), and Fengning (1994) cited in Rahmani, 2007; U-udomsook, 2004 cited in Thaisuriya, 2006).

Example 1.1: Many animals live only by killing other animals and eating them. They are called **predatory** animals. (Rahmani, 2007, p. 74).

In this example, the key words are “are called” to link the definition to the term “predatory animals”. (Rahmani, 2007)



2) Restatement clues

The restatement clues are the use of new words, phrases, or sentences which help readers understand unfamiliar words by explaining the meaning of the unfamiliar words. This type of clues is usually signaled by signal words or punctuations such as *or*, *that is*, *that is to say*, *in other words*, *to put in another way*, *i.e.*, *.....*, *-*, *-.....-*, *and* (*.....*) Nuttall (1982), Sternberg & Powel (1983) and Fengning (1994) cited in Rahmani, 2007; Teawrattanakul, 2006).

Example 2.1: *X-ray therapy*, that is, treatment by use of x ray, often stops the growth of a tumour. Nuttall (1982), Sternberg & Powel (1983) and Fengning (1994) cited in Rahmani, 2007: 76)

The phrase “that is” hints meaning of “*X-ray therapy*” which is “treatment by use of x ray”.

3) Synonym clues

A synonym clue is a word or phrase which has the same meaning as the word in question, i.e. a difficult word or unknown word. It may be provided next to the unknown word in order to help readers understand the meaning of an unfamiliar word easily. The signal words which hint the synonym are *means*, *called*, *be verbs*, *that is*, *,*, *also known as*, *or*, *is referred to as*, *sometimes called*, *is/are known as*, *by [] is meant..*, *similar to*, *can be defined as*, *synonyms*, *comma* (*,*), *parenthesis* (*)*, *or dash* (*-*), etc. Long & Richards (1987), Rangsiyakool (2002) and Rubin (1993) cited in Nutthakrai, 2006; Palma, n.d.; Krantz & Kimmelman (1985) cited in Pannara, 2008).

Example 3.1: The library becomes a conditioned *aversive* stimulus – you hate it because you have spent so many uncomfortable hours there. (Itthipanya, 2005: 248)

The difficult word is “aversive.” The writer showed synonym of “aversive” by using dash (-) in order to help the readers to get meaning of “aversive.” Thus, the meaning of “aversive” can be feeling disgusted or taking a dislike to (Itthipanya, 2005).

4) Example clues

Examples clues refer to the means of giving the meanings of unknown words by illustrating in a different sentence or immediately following the

signal word. The examples may be the sub-category of unfamiliar words (Schatz & Baldwin (1986) cited in Thaisuriya, 2006) which helps the reader to get the meanings of words easily. Words which signal examples are *such as, like, for example, for instance, is/are, e.g., especially, including, and include*. The punctuation which usually indicates illustration includes *colon (:), comma (,), and dash (-)*. Itthipanya (2005); Nuttall (1982); Sternberg & Powel (1983); Fengning (1994) cited in Rahmani, 2007; Schatz & Baldwin (1986) cited in Thaisuriya, 2006).

Example 4.1: The children born to women who drink large amounts of alcohol during pregnancy are characterized by mental retardation, poor motor development, and ***unusual facial features*** for instance a flat nose and widely spaced eyes. (Itthipanya, 2005: 246)

The difficult word is “unusual facial features” and the author indicated examples of “unusual facial features” after “for instance.” The reader can know the meaning of the words by the examples: “a flat nose and widely spaced eyes,” which are “unusual facial features.”

5) Comparison and Contrast clues

Comparison and contrast clues give meanings of unknown words by offering words or showing the similarities or differences which should help the reader to deduce the meaning of the unknown words, and sometimes there is a signal word, for example, *as/as...as, like/alike,, similar to, resemble, similarly, likewise, correspondingly, in the same way, in like manner, comparing, compared with, as if/as though*. The signal words for showing contrast includes *yet/but, however, nevertheless, though, although, even though, while, whereas, on the other hand, on the contrary, in contrast, conversely, in spite of and despite*. Itthipanya (2005); Rangabtuk & Sattayarak (1999) & the website <http://www.bwc.ac.th> cited in Krasaekarn (2008) and Nuttall (1982), Sternberg & Powel (1983) and Fengning (1994) cited in Rahmani, 2007).

Example 5.1: The ancient ***mammoth***, like other elephants, is huge. (Nuttall (1982), Sternberg & Powel (1983) and Fengning (1994) cited in Rahmani, 2007: 75).

The words “other elephants” indicate that the “mammoth” is a type of elephant. The preposition “like” is a signal word.

Example 5.2: Some plants die in wet soil, but most *thrive*. (Krasaekarn, 2008: 6).

In general the word “but” indicates contrast between clauses. In this sentence, the word “but” indicates the contrast between “die” and “thrive.” The reader can get the meaning of the verb “thrive” with the help of the coordinator “but” by considering the phrase before “but” (which provides the opposite meaning). Thus, the meaning of the verb “thrive” can be guessed from the word “die” which has an opposite meaning.

6) Cause and Effect clues

Cause and effect clues help the reader know meanings of words from the relationship between a cause and a result. The reader can deduce the meanings of the unknown words in the information or idea in the result/effect part and in the cause part. The signal words which show causes are phrases introduced by a word like *because, since as, now that, for because of, owing to, due to, on account of*. The signal words indicating an effect are, for example, *so, therefore, hence, thus,, consequently, accordingly, as a result, result in, cause, that is why, mean, so that, in order that, with the result that, the final result is that*. (Itthipanya, 2005; Teawrattanakul, 2006).

Example 6.1: We can see things through a piece of glass because it is *transparent*. (Krasaekarn, 2008: 7)

In this example, the unknown word is “transparent”, which is presented in a cause clause. When the reader reads the given sentence, they can guess the meaning of “transparent” from the effect clause presented before “because.” Hence, the reader can get the meaning of “transparent” which refers to “clear or can see through.”

Example 6.2: Driving while drunk endangers other people’s lives, so *penalties* are more severe than careless driving. (Itthipanya, 2005: 247)

In this example, the unknown word is “penalties” which is in the effect clause. If the reader reads this sentence, they can guess the meaning of “penalties” from the information in the cause clause signaled by “so.” Thus, the reader can get the meaning of “penalties” which refers to “punishments.”

The definitions of definition clues, restatement clues, and synonym clues stated above are similar in meaning and signal words because they define or explain the meanings of unfamiliar words to help the reader understand the unfamiliar words easily. Synonym clues or the restatement clues are stated together that they mean other words which have similar meanings and are used in the sentence to help the reader get the meaning of an unfamiliar word by inferring the relationship between the word and a previously stated idea (Jaffe & Mather, 2002). Furthermore, the signal words which provide hints for the restatement clues are similar to those for synonym clues (see Restatement clues and Synonym clues on pages 15-16). Moreover, the signal words which provide hints for the synonym clues are similar to the signal words of definition clues (see Definition clues on page 15 and Synonym clues on page 16). Consequently, this study combines these three types of context clues into the same type called “definition or synonym clue.”

2.4 Previous Studies

Since the use of context clues to guess the meaning of unfamiliar words in English text is crucial for readers especially L2 readers, many researchers have investigated advantages and difficulties associated with them.

The following previous studies (Karbalaie et al., 2012; Krasaekarn, 2008; Mongkolkeha, 2008; Nutthakrai, 2006; Pannara, 2008; Thaisuriya, 2006) are similar designs, starting with a pretest for students. Then the students were taught how to use context clues for guessing the words’ meanings, and then they took a posttest respectively.

Karbalaie et al. (2012) studied the effects of using explicit instruction over 6 sessions to teach context clues as a strategy to help 369 Iranian EFL and Indian ESL undergraduate university students in an English major program improve their level of reading comprehension. Only the experimental group (189 randomly-assigned students) was taught how to use different context clues while reading which included (1) locating appositives, (2) searching for explicit definitions or explanations within the text, (3) contrast or comparison clues such as conjunctive adverbs or coordinate conjunctions, (4) example or illustration clues and (5) using prior knowledge while reading. The pre-test/post-test was reading in nature. After the two groups took the

pre-test, the participants in the experimental group were taught how to use context clues and then all groups took the post-test. Context clue strategies were demonstrated and modeled using the Cognitive Academic Language Learning Approach (CALLA) which included five instruction phases: exposure to different kinds of context clues from modeling, practice with familiar contexts and tasks, check and monitor of understanding, and evaluation, and application of strategies to new tasks. A paired sample t-test revealed that students in the experimental group more effectively used context clues to determine unfamiliar word meanings than the students in the control group. The ANCOVA analysis showed that proficiency level and gender of the students had no significant influence on the enhancement of reading comprehension after instruction. Therefore, the explicit instruction of context clues was effective in the improvement of the college students' abilities to determine the meanings of unknown words while reading.

Krasaekarn (2008) studied whether learners' ability to guess unknown vocabulary meanings from contexts was one of the potential strategies to help learners get the meanings of unknown words. The pre-test/post-test was a multiple choice test and a short answer test. Four types of context clues were taught to 20 grade ten Thai students: definitions, restatements, comparisons and contrasts, and cause and effect relationships. The study indicated that context clue techniques promoted the ability of the learners' to guess vocabulary meanings. The definition and the restatement types enhanced the students' guessing ability better than the other two because the learners could easily guess the appropriate meanings from the hints surrounding the target words. In contrast, causes and effects, and comparisons and contrasts produced more difficult or complex contexts, making it harder for students to identify the clues. For example, some cause and effect sentences began with the cause followed by the effect, but in others, the effect came before the cause. For comparisons and contrasts, learners had a lot of difficulties predicting the exact meaning of the target words. The learners had to clarify the underlined words from two ideas in the sentences and compare them to understand the words' meanings. This confused the EFL learners, causing them to have difficulties in understanding the given sentences. Moreover, the cause and effect, and comparison and contrast clues presented longer sentences with subordinate

clauses embedded, rather than single idea sentences. This made it more difficult for learners to draw the appropriate meanings of the target words or sentences.

Mongkolkeha (2008) conducted a one-group pre-test/post-test designed study on the effectiveness of using strategies in guessing vocabulary meanings from word structure analysis and context clues with 30 first-year students in a Thai university in an English major program. This study investigated certain strategies in guessing vocabulary meanings, which students used and which were the most and the least helpful, as well as students' opinions toward word structure analysis and context clues. The instruments consisted of four lesson plans which introduced students to word analysis strategies, including using prefixes, suffixes, roots and compound words, and nine context clue types, including definitions, restatements, examples, comparisons, contrasts, synonyms, antonyms, cause and effect, and explanations. There were also a pre-test and a post-test; a questionnaire to elicit students' opinions on these learning strategies, and a learning log and a teaching log. The data were analyzed by using means, percentages, and a t-test for dependent samples. The results revealed that students trained in the word structure analysis and context clues instruction could use the strategies effectively to guess words' meanings. For the types of word structure analysis strategies, using compound words was found to be the most effective, and the root analysis was the least effective. For context clues strategies, restatements were the most effective type because the clues were clear and helped the students to easily understand the words' meanings, while contrast clues were the least effective type because some students confused words' meanings that were explained by comparison and contrast clues. Moreover, the students were satisfied in the use of strategies in guessing vocabulary meanings from word structure analysis and context clues.

Nutthakrai (2006) studied the use of strategies in guessing vocabulary meanings from context clues by 30 ninth grade students at a high school in Thailand, who were randomized to one group pre-test/post-test design. The instruments for this study contained five lesson plans, a pre-test and a post-test (multiple choice tests of 40 items), a learning log, and a teaching log. The strategies used in guessing vocabulary meanings from context clues were (1) semantics clues, including definitions, examples, restatements and super-ordinations (words which have meaning covering

others words, for example birds and reptiles); (2) punctuation markers, and (3) clause markers including modifier clause markers, time clause markers, and place clause markers. Percentages and t-tests were used to analyze the data. The results showed that there was a statistically significant difference in students' ability in using strategies in guessing vocabulary meanings from context clues. The context clues were clear and helpful, and students could easily understand definition, example, and restatement types. Furthermore, they could use the introduced strategies to enhance their reading ability, thinking, and context clues analysis, which caused them to have a good attitude to English learning. However, the students faced some difficulties with super-ordination clues and modifier clause markers which were part of complicated sentences. This made guessing of the meanings of words difficult when the students read.

Pannara (2008) investigated English readability by guessing vocabulary meanings from contexts and the ability of guessing vocabulary meanings. The participants were 100 first-year students at a Thai university who were in the Faculty of Business Administration. They were separated into two groups, an experimental group and a control group, each of 50 students. The instruments for this study were a pre-test and a post-test of questions of a multiple choice test type and a short answer test type. After the pre-test, students in the experiment group were trained in English reading by guessing vocabulary meanings from context instruction, whereas the control group was given only vocabulary meanings in Thai. Four types of context clues, including definitions, examples, comparisons, and contrasts, were taught to the experimental group. After the instruction, the post-test was administered to both groups. Two t-tests and a one-way ANCOVA were used for data analysis. The findings from the one-way ANCOVA revealed that the experimental group had a higher score than the control group. Therefore, this study showed that English reading instruction by guessing vocabulary meanings from contexts better helped students to guess the meanings of unfamiliar words.

Thaisuriya (2006) compared English reading comprehension ability by using the context clues of two groups of students, 30 from a math-science program and 30 from an arts-language program at a high school in Thailand. The instruments of this study were lesson plans, a pre-test, and a post-test (multiple choice test type). The lesson

plans covered seven techniques of using context clues to guess the meanings of unfamiliar words, including definitions, restatements, similar meanings (synonyms), opposite meanings (antonyms), examples, explanations, and familiar words. The results from the t-test showed that the students' reading comprehension ability after learning about context clues was significantly better than before at the level of .01. The results from one-way ANOVA showed that the most helpful context clue type was familiar words and the second most helpful context clue type was restatements and opposite meanings. This was because most of the meanings of familiar word, restatement, and opposite meaning clues were one word or short and simple phrases, and the students knew some words which helped them understand unfamiliar phrases and passages. On the other hand, the least helpful types were definitions and explanations since the clues themselves were usually long phrases and the students did not know the meaning of several words in the phrases, the long structures added another level of difficulty for the students, and they had to use knowledge about language structures simultaneously. Students in the math-science program could make better use of context clues than students in the arts-language program because they concentrated better on learning, were more responsible for assignments, could express their opinions and communicate better with others, could think, analyze, summarize what was being learned, and had higher ability in reading comprehension due to being able to use context clues more effectively. The results from two-way ANOVA revealed that gender and learning program correlated at the significant level of .01. This result suggested that male students' reading comprehension ability in the math-science program was higher than that of female students. However, for the arts-language program, female students' reading comprehension ability by the use of context clues was higher than that of male students.

The following previous studies (Andayani and Rasdyati, 2001; Shen, 2007; Viriyasombat, 1996) are different design from the presented studies above.

Andayani and Rasdyati (2001) investigated the degree to which the student used various types of syntactic clues and semantic clues in inferring word meanings in reading comprehension and whether there is a significant relationship between the uses of both context clue types. One group of 30 students in Indonesia whose reading proficiency and knowledge of grammatical structures was at an advanced level were

required to (1) write the meanings of the words presented in isolation either in L1 or L2, and then (2) guess the meanings of the words presented in context and write down the clues which assisted them in guessing in two sub-test including syntactic and semantic. The data were computed by the use of mean scores and percentages. The results indicated that the participants made very good use of syntactic clues, but their ability in using semantic clues was considered very inadequate. Furthermore, there was a moderate relationship between the use of syntactic and semantic clues. The seven types of semantic clues that the participants used were ranked from the highest mean to the lowest mean. These were student's experience (49.33%), comparison-contrast (13.79%), example (13.68%), description (9.86%), mood (5.16%), synonym (5.04%), and definition (3.14%). The researchers made three conclusions. First, the participants used syntactic clues to identify the word class to find the meanings of words successfully, and used one or more types of them at the same time. Second, they faced difficulties in inferring word meanings by means of semantic clues because they (1) had insufficient vocabulary size, (2) misunderstood the meanings of surrounding words which made the participants fail to get the exact or actual meaning of the words since there were some words that the participants were unable to guess, and (3) took the wrong clues which caused the participants to fail in inferring the right meanings. Third, the success in labeling word class was not automatically followed by correct guess of word meaning which involved different cognitive processing.

Shen (2007) studied difficulties in inferring word meanings from context when reading short reading passages. The participants of the study were 30 technical university Chinese learners in academic year 2006. A word inference test, retrospective reports, and learning reflective journals were sources of data collection. The data were analyzed by means of identifying, coding, and categorizing learners' difficulties. The results showed that the participants did not pay attention to homonyms and pseudo-familiar words. Most of the low proficiency learners lacked vocabulary competence about homonyms/polysemes and mistakenly identified the words' meanings, leading to serious problems concerning comprehension. Moreover, from the learning reflective journals, a majority of students reported their difficulties in guessing the meaning of vocabulary, insufficient practice, misleading context clues, and low learning motivation. Concerning insufficient vocabulary size and knowledge,

the results indicated that limited vocabulary made deriving word meanings difficult because there were too many words to guess and there was little comprehensible context to support the guessing. As for inadequate practice, a majority of students reported their unfamiliarity with the inference strategies resulted from a lack of sufficient practice. For misleading context clues, some students grumbled that misunderstanding of the whole text resulted from wrong guessing. Furthermore, the results revealed that some students, particularly those with low scores, usually felt bored and unwilling to learn in class. In addition, Shen suggested that EFL learners, who learned with little exposure to a natural language learning environment, should be explicitly taught how to use context correctly instead of guessing broadly.

Viriyasombat (1996) analyzed the quantity and correctness of the use of strategies in guessing English vocabulary meanings of 400 twelfth grade students of high, middle and low proficiency at a high school in Thailand. The instruments included a test of ability and a test of strategies in guessing English vocabulary meanings. The strategies used in guessing vocabulary meanings consisted of two types: word analysis using (1) prefixes, (2) suffixes, (3) roots and (4) compound words and contextual analysis using (1) definitions, (2) examples, (3) restatements, (4) synonyms/antonyms, (5) comparison or contrast and (6) summary. The participants were divided into three groups, high, middle and low, according to their scores in the ability test. The results revealed two findings: (1) regarding using word analysis, the strategy the whole participants used the most was roots and the least was prefixes. The strategy they used most correctly was suffixes and the least was roots. The high and middle score groups used suffixes the most and the low score group used roots the most. Prefixes were the least used by the three score groups. The strategy the three score groups used most correctly was suffixes and the least was roots. (2) Concerning using contextual analysis, the most-used was summaries and the least-used was restatements. The strategy they used most correctly was examples because the students recognized example clues words and they could guess the unfamiliar words' meanings from additional details for exemplifying which came after the example clue words. The strategy they used least correctly was definitions because the students may confuse and have difficulties in interpreting the directly provided meanings from the statements which may come before or after the unfamiliar words. The strategy the

high and middle score groups used most correctly was examples and the low score group used summaries most correctly. The least correct in the high score group was restatements, in the middle score group definitions and synonyms/antonyms, and in the low score group synonyms/antonyms.

According to the studies reviewed above, many types of context clues have been investigated. The results revealed some advantages and some difficulties in the use of context clues to find meanings of unfamiliar words. The researchers also suggested useful pedagogical implications and recommendations for teachers to guide them in the teaching of EFL learners to improve guessing unfamiliar word meanings by the use of context clues and to effectively improve reading comprehension.

In conclusion, this chapter has shown that among bottom-up, top-down, and interactive reading processes, the last one seems to be the most effective for readers because it combines the advantages of both the bottom-up and top-down processes (Stanovich, 2003 cited in Saropa, 2009), and they are used to fulfill each other (Nuttal, 2005). Vocabulary competence, sentence structure knowledge, and background knowledge are necessary for learning L2 because it can help language learners to understand unfamiliar words and read L2 texts effectively. Using context clues to guess word meanings is a strategy which enhances learners in reading authentic texts. Theoretically, context clues have two main types, syntactic clues and semantic clues, each having sub-types as described in section 2.3.2. These clues can be found in texts and can be used to help students infer the meanings of unknown words.

According to previous research studies, the first five most frequently used types out of nine types the students use to guess the meanings of vocabulary correctly are restatements, examples, comparisons, explanations, and definitions, while those used the least correctly are contrasts, antonyms, synonyms, and cause and effect (Mongkolkeha, 2008). Two types of context clue, definitions and restatements, equally help learners guess the meanings of vocabulary. On the other hand, comparisons and contrasts, and cause and effect provide little help in terms of vocabulary guessing (Krasaekarn, 2008). When considering students with high, middle, and low proficiency in guessing English vocabulary meanings, it was found that students mostly used summaries and the least used was restatements. The strategy the high and middle proficiency students used most correctly was examples and the

low proficiency students used summaries. The strategy the highly proficient used least correctly was restatements [different to the results of the studies of Mongkolkeha (2008) and Krasaekarn (2008)], definitions and synonyms/antonyms for the middle proficiency students and synonyms/antonyms for low proficiency students (Viriyasombat, 1996).

In terms of effectiveness in facilitating students to guess words' meanings, using context clues can help students find the meanings of words successfully and enhance their reading ability (Andayani & Rasdyati, 2001; Karbalaei et al., 2012; Krasaekarn, 2008; Mongkolkeha, 2008; Nutthakrai, 2006; Pannara, 2008; Reardon, 2011; Thaisuriya, 2006). Moreover, students were satisfied with using context clues (Mongkolkeha, 2008) if the clues were clear and students were able to understand easily, building good attitudes towards English learning (Nutthakrai, 2006). The types of context clues which helped significantly to improve students' guessing ability included definitions, restatements (Nutthakrai, 2006; Thaisuriya, 2006; Krasaekarn, 2008; Pannara, 2008; Mongkolkeha, 2008), examples (Viriyasombat, 1996; Nutthakrai, 2006; Pannara, 2008; Mongkolkeha, 2008; Karbalaei et al., 2012), summary clues (Viriyasombat, 1996) and comparisons and contrasts (Pannara, 2008; Mongkolkeha, 2008; Karbalaei et al., 2012).

In terms of difficulties of using context clues to facilitate students for guessing words' meanings, students encountered various difficulties including lack of sufficient practice, having low motivation to learn in class (Shen, 2007), insufficient vocabulary size (Andayani & Rasdyati, 2001; Thaisuriya, 2006; Shen, 2007), misunderstanding the meanings of surrounding words and taking the wrong clues (Andayani & Rasdyati, 2001; Shen, 2007), ignoring homonym/polyseme words by giving a variety of wrong meanings with multiple meanings, and also guessing the word meanings of pseudo-familiar words by presuming words with formal similarity with other words (Shen, 2007).

Furthermore, the types of context clues which often hindered students from guessing the correct meanings were definitions (Viriyasombat, 1996) and explanation clues because they often appeared to be long phrases and the students did not know the meanings of the given words as clues, and also they lacked the use of language structure knowledge simultaneously (Thaisuriya, 2006). In addition, comparisons and

contrasts and cause and effect exposed students to difficulties because they produced more difficult or complex sentences, so it was too difficult to understand what was going on in the sentence (Krasaekarn, 2008; Mongkolkeha, 2008). Antonyms and synonyms were difficult for students with a lack of background knowledge about unfamiliar words (Mongkolkeha, 2008). Super-ordination clues (words which have meanings covering others words, such as birds and reptiles) and modifier clause markers which were part of complicated sentences caused difficulties in guessing meaning of words (Nutthakrai, 2006).

Consequently, there were many suggestions for the improvement of the use of context clues and solutions to the difficulties described above. For example, teachers should emphasize the use of semantic clues in reading classes, need to give some instruction about attacking unfamiliar words, enabling students to make most use of context clues provided, and allow students to perform intelligent guessing (Andayani & Rasdyati, 2001). Students should be taught how to use context clues explicitly and intelligently instead of guessing widely. Learners need to practice repetitively with meta-cognitive awareness in the combination of various processing strategies which allows them to better access comprehension. Furthermore, it is important to make learners aware of polysemy, words' prefixes or suffixes and specific meanings when used in different contexts, which can help improve their reading ability (Shen, 2007).

From the information reviewed above, six types of context clues, *definition clues, restatement clues, synonym clues, example clues, comparison and contrast clues, and cause and effect clues*, were frequently studied, proven to be effective, but students often encountered some difficulties. Thus, the six types of context clues which are grouped into four types including *definition or synonym clue, example clue, contrast clue, and effect clue* are investigated learners' difficulties in using context clues in the present study.

For these reasons, the present study was designed to investigate whether context clues can benefit EFL learners in guessing the meaning of unfamiliar words and explore Thai grade 12 high school EFL learners' difficulties in the use of context clues to guess the meaning of unfamiliar words in English passages which emphasized identifying learners' difficulties in real time in order to find difficulties while these clues are used.

CHAPTER 3

METHODOLOGY

This chapter introduces the participants, research instruments, data collection procedures, and data analysis of the study, which investigated to determine whether context clues can benefit Thai EFL learners in guessing the meanings of unfamiliar words, and also investigated the learners' difficulties in using context clues to understand the meanings of unfamiliar words.

3.1 Participants

The participants in the study were 60 grade twelve students from all three classes of Khokyangwittaya School, Surin province, in the first semester of academic year 2014. The participants were aged 17 to 18 years and were studying a compulsory English course which was taught by the researcher two periods per week, per class. The content of the course relates to an indicator of learning area of a foreign language curriculum which requires the students to identify the main idea, analyze the essence, interpret and express opinions from reading feature articles and entertainment articles, as well as provide justifications and examples for illustration (The Ministry of Education, 2008). The use of context clues was included in the content of this course.

3.2 Research Instruments

The research instruments included handout about context clues, a vocabulary test, and context clue tests.

3.2.1 Handout about context clues

The handout about context clues contained information about the four context clue types with examples, and ten items of exercises for each type of context clue. The unfamiliar words contained in the sentences in the handout included nouns, verbs, phrasal verbs, adjectives, and adverbs which were not the same words as in the context clue tests. The objective of the handout was to allow the participants to have more language experience, and be familiar with the use of context clues. The exercises

in the handout prompted the participants to read the given sentences and identify context clues or signals that hinted the meanings of unfamiliar words. Then they had to write the correct meanings of the unfamiliar words in the blanks provided (See Appendix A). The handout was distributed to the participants at the beginning of the study. The lessons to cover the handout lasted four hours for the participants in each class.

3.2.2 A vocabulary test

The objective of the vocabulary test was to test the participants' vocabulary knowledge in order to choose and derive the unfamiliar words to test the participants in the context clue tests. Eight words in the vocabulary test the researcher believed that they are difficult for the participants were chosen from the website http://www.trueplookpanya.com/data/product/media/hash_knowledge/2704/34704/DOCA8000034704.pdf, which gathered vocabulary from 15 English books for Thai grade twelve students. The participants were required to give Thai meanings of eight unfamiliar words without context in the vocabulary test (see Appendix B). Then the researcher chose four unknown words to compose the context clue tests.

3.2.3 Context clue tests

The objective of the context clue tests was to test the participants' ability to use the four types of context clues and investigate common difficulties they may encounter in this use. The types of context clues consisted of a definition or synonym clue, an example clue, a contrast clue, and an effect clue (a sub-type from comparison and contrast and cause and effect clue types). The four sentences in the context clue test were complex sentences of 15-24 words, each with a clue or a signal designating one of the four target clue types. They were taken from the Bangkok Post newspaper which contained the sentences used to communicate in real world. Four sentences in the context clue tests contained two original sentences (the example clue and the effect clue sentences) and two modified sentences of which the sentence structure was modified to be easier and suitable for the participants (definition or synonym clue and contrast clue sentences) (see Appendix D).

The context clue tests (see Appendix B) consisted of two versions, version 1 and version 2. In fact, the two versions contained the same English sentences and similar instructions, but they differed in that version 1 did not provide a Thai glossary

of the English words given in each sentence while version 2 did. In both versions, each sentence contained an unfamiliar word which was highlighted in the sentence. The four unfamiliar words in the context clue tests included two nouns, one phrasal verb, and one adjective.

The participants were allowed to ask about the Thai meanings of any words in the test unknown to them except the unfamiliar target words. The objective of the use of two versions was to investigate whether the limits of the participants' vocabulary and the complexity of the sentences affected their use of context clues in version 1. Version 2 was included to examine whether they still had difficulties in the use of context clues even though the participants had sufficient vocabulary (with a correct glossary in Thai) to understand the given sentences. The following is an example of the two versions:

Version 1

1. Police arrested some villagers who were **involved in**, or linked to, the production of drugs.

a. Circle unknown word(s) in the sentence.

b. Translate the whole sentence into

Thai:.....

c. Identify the major context clues or signals that help you to know or guess the meaning of **involved in**.

.....

d. If you do not know the meaning of **involved in**, explain what difficulties you encounter:

.....

Version 2

1. Police arrested some villagers who were **involved in**, or linked to, the production of drugs.

policeman = ตำรวจ arrest = จับกุม some = บางส่วน villager = คนในหมู่บ้าน

who = ผู้ซึ่ง or = หรือ link to = เชื่อมโยงกับ, เกี่ยวข้องกับ

production = การผลิต of = ของ drug = ยาเสพติด

a. Translate the whole sentence into Thai

.....

b. Identify the major context clues or signals that help you to know or guess the meaning of **involved in**.

.....

c. If you do not know the meaning of **involved in**, explain what difficulties you encounter:

.....

All 60 participants were required to take the version 1 test first. They then immediately took the version 2 test. Each item of version 1 contained four questions while version 2 contained three questions. In version 1, the participants were required to (a) circle unknown word(s) in the sentence, (b) translate the whole sentences into Thai, (c) identify the major context clues or signals that helped them to know or guess the meanings of unfamiliar words, and (d) if they did not know the meanings of the unfamiliar words, they had to explain what difficulties they encountered; however, in version 2, they were not asked to do (a) circle unknown word(s) in the sentence because the glossary of the words presumed to be difficult for them was given. All instructions in the tests were explained to the participants in Thai because for ease of understanding (see Appendix C).

3.3 Data Collection Procedures

The present study was conducted in August of the first semester of academic year 2014. The study was administered during five one-hour periods. The participants learned about context clue types and practiced with context clue exercises, covering

(1) definition or synonym clue, (2) example clue, (3) comparison and contrast clue, and (4) cause and effect clue respectively. In the last period, all participants were required to take the context clue tests (in the extra time the week after at the same time).

3.4 Data analysis

The collected data were used to determine what words and sentences the participants understood and the difficulties when using the context clues. The total score for each item of the context clues test was one point gained by correct guessing the meaning of an unfamiliar target word.

The data from the context clue tests were analyzed as described below.

(1) The data from the instruction (a), in which the participants were asked to circle the unknown words, were calculated for the frequency of the known content words (which were not circled) for each sentence in version 1 test which was counted. Then, the frequencies were converted to percentages. These percentages were used to determine text coverage of the participants.

(2) The data from the instruction (b), in which the participants were required to translate the whole sentences into Thai, were calculated for the mean scores of unfamiliar target words the participant knew the meanings of and categorized for each type of context clues. This indicated how many unfamiliar target words the participants understood the meanings of for each type of context clues.

(3) The data from the participants' performances in identifying the major context clues or signals that helped them know or guess the meanings of the unfamiliar target words, were counted and calculated for the percentages, and categorized for each type of context clues. This was to see if the participant could translate, i.e. knew, the meanings of unfamiliar target words, and whether they were able to identify or recognize context clues or signals to help them guess the meanings of unfamiliar words.

(4) The data from the instruction (d), in which the participants had to explain what difficulties they encountered, if they could not guess the meanings of the unfamiliar target words, were categorized and qualitatively analyzed to identify the difficulties and their causes encountered in dealing with unfamiliar words and searching for the

correct context clues or signals. This indicated the difficulties they encountered when using context clues or signals to guess the meanings of unfamiliar target words.

(5) The data from the mean scores and the percentages of the participants who could correctly guess the meanings of the unfamiliar target words of two versions of context clue tests were calculated to determine whether there was a significant statistical difference between the participants' scores in guessing the meanings of unfamiliar words in version 1 test (without glossary in Thai) and version 2 test (with glossary in Thai provided). That is, to find out to what extent recognizing the context clues, vocabulary, and perhaps sentence structure, plays a role in guessing the meanings of unfamiliar words.

CHAPTER 4

RESULTS

This chapter discusses the results of the investigations of benefits of context clues to Thai EFL learners in guessing the meanings of unfamiliar words, and the difficulties they encountered while trying to guess the meanings of those unknown words. The results are the outcomes of the participants' performances in the context clue tests in the version 1 and the version 2 and are presented in three sections, results of the version 1 context clue test, results of the version 2 context clue test and summary of results from the version 1 and the version 2 context clue tests.

4.1 Results of the version 1 context clue test

The objective of the version 1 test was to investigate difficulties of Thai EFL learners while using context clues to guess the meanings of unfamiliar target words without the assistance of a glossary in Thai. In the version 1 test, the participants were asked to (1) read the whole sentences and circle the unknown word(s), (2) translate the whole sentences into Thai, (3) identify the major semantic context clues or signals that helped them know or guess the meanings of the highlighted words and (4) if they did not know the meanings of the highlighted words, they had to explain what difficulties they were encountering.

Results are divided into five parts which include successful participants' text coverage, participants' text coverage in each sentence, the saliency of context clues based on types of context clue, unsuccessful participants' report about their difficulties in reading the texts, and summary of results from the version 1 context clue test respectively.

4.1.1 Successful participants' text coverage

Result in this section is taken from the participants' performances in question 2 (they had to translate whole sentences into Thai). Table 1 presents the frequencies and percentages of participants who (1) correctly guessed the meanings of the unfamiliar target words (successful participants), (2) identified context clues or signals and also indicated the average of the percentages of recognized content words.

Table 1 Frequencies and percentages of the successful participants and their text coverage

Context clue types	Frequencies and percentages of participants	Percentages of content words recognized
Definition/Synonym clue	0(0%)	0
Example clue	4(6.67%)	Participant 19 (71.43%) Participant 32 (64.23%) Participant 38 (64.23%) Participant 47 (78.57%)
Contrast clue	0(0%)	0
Effect clue	1(1.67%)	Participant 13 (83.33%)
Total (N=240 responses)	5 (2.08%)	Average 72.36%

Table 1 indicates that only five participants out of 60 participants (2.08%) were able to guess the meanings of the unfamiliar target words in only sentences of the example clue type (6.67%), and the effect clue type (1.67%). They knew the meanings of content words in the sentences between 64.23% and 83.33% (average 72.36%). Although these percentages are lower than what the text coverage (Hirsch, 2003) suggests, it must be noted that, in the present study, only content words were counted and the context clue test contained some short sentences in the present study. This result showed that the participants who reached text coverage of at least 60% of the total content words (computed from the rounded lowest percentage of content words the successful participants recognized, see section 4.1.2) were able to guess the

meanings of the unfamiliar target words study. In other words, the text coverage using content words for reading comprehension of this study was 60%.

4.1.2 Results concerning participants' text coverage in each sentence

Results in this section are taken from the participants' responses in question 1, In calculating the recognized words coverage by the participants, only content words were counted and converted into percentages. Table 2 summarizes these results. The percentages are further divided into two levels i.e. 60% and lower, and above 60%. Frequencies of the participants in each level are also presented. Percentages of participants who recognized more and less than 60% of all the content words are also summarized.

Table 2 Percentages of content words recognized by all participants in each item

Types of context clue	Percentages of recognized words	Frequencies of participants (N=60)
Definition/Synonym clue	0 – 60	59
	61 – 100	1
Example clue	0 – 60	41
	61 – 100	19
Contrast clue	0 – 60	54
	61 – 100	6
Effect clue	0 – 60	49
	61 – 100	11
Total	The percentages of the participants who knew the meanings of content words lower than 60% was 84.58% and above 60% was 15.42%.	

Table 2 indicates that in all items of the version 1 context clue test, overall, when considering the cutting point of 60% for the minimum text coverage necessary for the participants to successfully guess the meaning of an unfamiliar word, the majority of all participants (84.58%) recognized less than 60% of the content words given in the sentences and were unable to correctly guess the meaning of the target words. Therefore, these results show that text coverage plays an important role in reading comprehension, and the text coverage threshold (for content words) should be 60%.

4.1.3 Results concerning the saliency of context clues based on types of context clue

The results in this section indicated the frequencies and percentages of successful participants (those who were able to guess the meanings of the unfamiliar target words) and unsuccessful participants (those who were unable to guess the meanings of the unfamiliar target words) in guessing the meanings of the unfamiliar target words (from question 2). In question 3, the participants had to identify the major semantic context clues or signals that helped them know or guess the meanings of the highlighted words. Table 3 summarizes the frequencies and percentages of those who were able and unable to identify the semantic context clues and signals for each sentence.

Table 3 Frequencies and percentages of successful and unsuccessful participants in guessing the meanings of the unfamiliar target words and their identification of context clues and signals in the sentences

Context clue types	Successful participants			Unsuccessful participants		
	Able to identify context clues	Able to identify signals	Unable to identify context clues and/or signals	Able to identify context clues	Able to identify signals	Unable to identify context clues and/or signals
Definition / Synonym clue	0/0 (0%)	0/0 (0%)	0/0 (0%)	7/60 (11.67%)	35/60 (58.33%)	25/60 (41.67%)
	Out of 0 participants			Out of 60 participants		
Example clue	4/4 (100%)	4/4 (100%)	0/4 (0%)	12/56 (21.43%)	16/56 (28.57%)	32/56 (57.14%)
	Out of 4 participants			Out of 56 participants		
Contrast clue	0/0 (0%)	0/0 (0%)	0/0 (0%)	2/60 (3.33%)	7/60 (11.67%)	51/60 (85.00%)
	Out of 0 participant			Out of 60 participants		
Effect clue	0/1 (0%)	1/1 (100%)	0/1 (0%)	3/59 (5.08%)	15/59 (25.42%)	41/59 (69.49%)
	Out of 1 participant			Out of 59 participants		
Total = 240 responses	4 (80%)	5 (100%)	0 (0%)	24 (10.21%)	73 (31.06%)	149 (63.40%)
	5 (2.08%)			235 (97.92%)		

Table 3 indicates that when considering the unsuccessful participants in each context clue type, the frequencies and percentages of those who were unable to identify context clues and signals were higher than those able to identify context clues and signals except for definition/synonym clue. When considering overall context clue types, the frequencies and percentages of the participants who were unable to identify context clues and signals (63.40%) were higher than those who were able to identify context clues (10.21%) and signals (31.06%). Thus, the context clues and/or signals were not salient or noticeable to the majority of the participants, especially the contrast clue type (3.33% for context clues and 11.67% for signals), and the effect clue type (5.08% for context clues and 25.42% for signals). Concerning the successful participants, only five participants out of 60 participants (2.08%) were able to identify context clues (80%) and the signals (100%) in the sentences and guess the meanings of the unfamiliar target words. When considering the unsuccessful participants who were able to correctly identify context clues (10.21%) and signals (31.06%), they were unable to guess the meanings of unfamiliar target words. Although the signals seem more salient than the context clues for the participants, the participants who could identify the signals could not guess the meanings of unfamiliar target words. This result suggests that the context clues and/or the signals hardly benefit the participants in guessing the meanings of the unfamiliar target words.

4.1.4 Results concerning unsuccessful participants' report about their difficulties in reading the texts

In question 4, the participants were asked to explain the difficulties they encountered while guessing the meanings of the highlighted target words, Table 4 summarizes frequencies of the participants who were unable to guess the meanings of unfamiliar target words and their report about difficulties in reading the texts.

Table 4 Frequencies and percentages of unsuccessful participants and the difficulties reported

Difficulties Type of context clue	Having very limited vocabulary knowledge in the sentences	Inability to recognize context clues to help in guessing the unfamiliar target words' meanings	recognizing none of the words surrounding the target words	Inability to make use of some recognized words to infer and guess the unfamiliar target words meanings
Definition / Synonym clue (60 participants)	30 50%	20 33.33%	22 36.67%	8 13.33%
Example clue (56 participants)	39 69.64%	28 50.00%	10 17.86%	7 12.50%
Contrast clue (60 participants)	44 73.33%	37 61.67%	16 26.67%	0 0%
Effect clue (59 participants)	45 76.27%	33 55.93%	14 23.73%	0 0%
Total = 235 97.92%	158 67.23%	118 50.21%	62 26.38%	15 6.38%

Table 4 indicates that the percentage of the unsuccessful participants who were unable to guess the meanings of unfamiliar target words in the version 1 test was 97.92% of the 60 participants. The difficulties the participants encountered and reported (when asked to identify and make use of context clues or signals to guess the meanings of the unfamiliar target words) from the least to the most difficulty can be summarized: (1) inability to make use of some recognized words to infer and guess the unfamiliar target word meanings (6.38%), (i.e. the participants were able to translate and understand sentences, but they were unable to use some recognized words to infer and guess the unfamiliar target words' meanings), (2) recognizing none of the words surrounding the target words (26.38%), (i.e. they did not know all words or word meanings in the sentences), (3) inability to recognize context clues to help in guessing the unfamiliar target words' meanings (50.21%), (i.e. they did not know context clues or signals which could help them guess the meanings of the unfamiliar words in the sentences), and (4) having very limited vocabulary knowledge in the sentences

(67.23%), (i.e. they recognized few or insufficient word meanings surrounding clue words and in the whole sentences, so they were unable to use clue words to help them guess the unfamiliar target words' meanings). Thus, having very limited vocabulary knowledge in the sentences seems to be the most frequently reported difficulty, because the percentage of the unsuccessful participants who encountered and reported this difficulty was the highest.

4.1.5 Summary of results from the version 1 context clue test

In overall, the major results from the version 1 context clue test can be summarized as follows.

4.1.5.1 Results from Table 1 indicated that only five participants (out of 60 participants) were to correctly guess the meanings of the unfamiliar target words. This may result from the majority of the participants had very limited vocabulary knowledge (Table 2).

4.1.5.2 According to results from Table 3, it indicated that context clues and/or signals were not salient to the majority of the participants (63.40%), because they were unable to identify context clues and/or signals while guessing the meaning of unfamiliar target words. In fact, the participants who could correctly identify context clues (10.21%) and signals (31.06%) could not guess the unfamiliar words' meanings. This suggested that context clues and/or signals hardly benefit the participants in guessing the meanings of the unfamiliar words.

4.1.5.3 As results in Table 4 show, there are four common difficulties reported by unsuccessful participants while finding and using context clues and/or signals to guess the meanings of the unfamiliar target words: (1) having very limited vocabulary knowledge in the sentences, (2) inability to recognize context clues to help in guessing the unfamiliar target words meanings, (3) recognizing none of the words surrounding the target words, and (4) inability to make use of some recognized words to infer and guess the unfamiliar target words' meanings (when closely looking at the data, the participants who reported this difficulty recognized words in the sentences lower than the text coverage of this study, so their underlying difficulty was having very limited vocabulary). In effect, difficulties (1), (3), and (4) are related to limited vocabulary knowledge. Thus, it can be summarized that the difficulties reported by unsuccessful participants while completing the version 1 test were (1) having

insufficient vocabulary knowledge, and (2) inability to recognize context clues to help in guessing the unfamiliar target words meanings.

4.2 Results of the version 2 context clue test

The objective of the version 2 context clue test was to investigate whether the participants still had difficulties in guessing the meaning of unfamiliar target words when the meanings of difficult words surrounding unfamiliar target words were given in Thai or when vocabulary was not a problem. In the version 2 test, the participants were asked to (1) translate the whole sentences into Thai, (2) identify the major semantic context clues or signals that helped them know or guess the meanings of the highlighted words, and (3) if they did not know the meanings of the highlighted words, they had to explain what difficulties they were encountering.

Results are divided into four parts which include results confirming that only recognizing vocabulary meanings and context clues may not help participants to guess the meanings of unfamiliar target words in the sentences, results concerning unsuccessful participants' report about their difficulties in reading the texts, comparison of results of scores of the version 1 and the version 2 context clue tests, and summary of results from the version 2 context clue test.

4.2.1 Results confirming that only recognizing vocabulary meanings and context clues may not help participants to guess the meanings of unfamiliar target words in the sentences

In questions 1 and 2 of the version 2 test, a glossary in Thai of the surrounding unfamiliar target words was provided, but the participants were unable to identify context clues and/or signals and were still unable to guess the meanings of unfamiliar target words. This section presents the results of the frequencies and percentages of successful participants (those who were able to guess the meanings of the unfamiliar target words) and unsuccessful participants (those who were unable to guess the meanings of the unfamiliar target words) in guessing the meanings of the unfamiliar target words. Table 5 summarizes the frequencies and percentages of those who were able and unable to identify semantic context clues and signals for each sentence.

Table 5 Frequencies and percentages of successful and unsuccessful participants in guessing the meanings of the unfamiliar target words and their performances on identifying the context clues and the signals

Context clue types	Successful participants			Unsuccessful participants		
	Able to identify context clues	Able to identify signals	Unable to identify context clues and/or signals	Able to identify context clues	Able to identify signals	Unable to identify context clues and/or signals
Definition / Synonym clue	2/12 (16.67%)	12/12 (100%)	0/12 (0%)	13/48 (27.08%)	30/48 (62.50%)	14/48 (29.17%)
	Out of 12 participants			Out of 48 participants		
Example clue	10/42 (23.81%)	21/42 (50.00%)	16/42 (38.10%)	7/18 (38.89%)	5/18 (27.78%)	6/18 (33.33%)
	Out of 42 participants			Out of 18 participants		
Contrast clue	0/0 (0%)	0/0 (0%)	0/0 (0%)	3/60 (5.00%)	5/60 (8.33%)	52/60 (86.67%)
	Out of 0 participant			Out of 60 participants		
Effect clue	0/15 (0%)	10/15 (66.67%)	5/15 (33.33%)	2/45 (4.44%)	18/45 (40.00%)	25/45 (55.56%)
	Out of 15 participants			Out of 45 participants		
Total = 240 responses	12 (17.39%)	43 (12.32%)	21 (30.43%)	25 (14.62%)	58 (33.92%)	97 (56.73%)
	69 (28.75%)			171 (71.25%)		

Table 5 indicates that although the meanings of difficult words surrounding unfamiliar target words in the sentences were given in Thai in the version 2 test, the majority of all participants (71.25%) were still unable to guess the meanings of unfamiliar target words. The percentage of the unsuccessful participants (71.25%) was higher than the percentage of the successful participants (28.75%). Although this percentage was higher than the percentage of the successful participants in the version

1 test (2.08%), it was rather low. Thus, this result suggested that recognizing sufficient words meanings may not be the only major factor which helped the participants to guess the meanings of the unfamiliar target words.

Regarding identifying context clues and signals, when considering the results from the version 1 test (without glossary in Thai) (see section 4.1.3 in Table 3), they indicated that although the successful participants could correctly identify context clues (80%) and signals (100%), the percentage of those who could correctly guess the meanings of the unfamiliar target words was very low (2.08%). Moreover, unsuccessful participants who could correctly identify context clues (10.21% in the version 1 test and 14.62% in the version 2 test) and signals (31.06% in the version 1 test and 33.92% in the version 2 test) could not guess the meanings of the unfamiliar target words. In contrast, in the version 2 test (with glossary in Thai provided) the successful participants who could not identify context clues and/or signals (30.43%) could guess the meanings of the unfamiliar target words. These results indicated that the successful participants might not solely use context clues and/or signals to help them guess the meanings of the unfamiliar target words, but they were likely to rather rely on the vocabulary knowledge from the provided glossary (Thai translation) when completing the test. This result indicated that context clues and/or signals may not facilitate the participants to guess the meanings of unfamiliar target words as much as expected.

4.2.2 Results concerning unsuccessful participants' report about their difficulties in reading the texts

In question 3 the participants were asked to explain the difficulties they were encountering if they did not know the meanings of the highlighted words. Table 6 displays (1) the frequencies of the unsuccessful participants who were unable to guess the meanings of the unfamiliar target words, and (2) some common difficulties the unsuccessful participants encountered and reported while completing the test.

Table 6 Frequencies and percentages of unsuccessful participants and the difficulties reported

Types of difficulties	Long and complex sentences	Inability to recognize context clues to help in guessing the unfamiliar target words' meanings	Inability to infer the meaning of unfamiliar target words from translated sentences	Lack of background knowledge	Taking the wrong clues for guessing	Inability to understand and cannot translate the sentences
Type of context clue						
Definition / Synonym clue (48 respondents)	8 16.67%	15 31.25%	20 41.66%	8 16.67%	0 0%	0 0%
Example clue (18 respondents)	11 61.11%	6 33.33%	5 27.77%	2 38.89%	0 0%	0 0%
Contrast clue (60 respondents)	40 66.67%	12 20.00%	2 3.33%	16 26.67%	21 35%	3 5%
Effect clue (45 respondents)	26 57.78%	15 33.33%	7 15.56%	6 13.33%	0 0%	2 4.44%
Total	85	48	34	32	21	5
171 responses = 71.25%	49.71%	28.02%	19.88%	18.71%	12.28%	2.92%

Table 6 indicates that in the version 2 test the majority of participants were unable to guess the meanings of the unfamiliar target words (71.25%), although they recognized the meanings of the vocabulary surrounding the unfamiliar target words and they also encountered and reported many difficulties.

The difficulties the unsuccessful participants encountered and reported (when asked to identify and make use of context clues to guess the meanings of the unfamiliar target words) in the version 2 test were divided into six difficulties. Ranked from the least to the most difficulty, they are: (1) inability to understand and translate the sentences (2.92%), (i.e. the participants were unable to understand and translate the whole sentences), (2) taking the wrong clues for guessing (12.28%), (i.e. the participants took the wrong clues or signals to help them guess the meanings of the unfamiliar target words), (3) a lack of background knowledge about sentences (18.71%), (i.e. the participants were able to translate and understand sentences, but they lacked background knowledge about the topic described in sentences to guess the meanings of the unfamiliar target words), (4) inability to infer the meanings of the unfamiliar words from translated sentences (19.88%), (i.e. the participants were able to translate and understand sentences, but they were unable to infer the meanings of the unfamiliar target words from the translated sentences), (5) inability to recognize context clues to help in guessing the unfamiliar target words' meanings (28.02%), (i.e. the participants did not know context clues or signals which could help them guess the meanings of the unfamiliar words in the sentences), and (6) long and complex sentences (49.71%), (i.e. long and complex sentences or some short sentences which were still long for some participants made it too difficult to translate the whole sentences and guess the meanings of unfamiliar words). Thus, long and complex sentences were the most frequently reported difficulty, which confirms that complexity of sentence structures may affect the participants' ability to guess the meanings of the unfamiliar target words.

Based on the result from Table 6, it can be summarized that although the participants knew all words meaning surrounding unfamiliar target words in the sentences, they could not guess the meanings of unfamiliar target words and also encountered and reported many difficulties. This result confirmed that recognizing sufficient vocabulary meanings may not be the only main factor which helps the

participants to guess the meanings of the unfamiliar words. There seem to be other factors impeding the participants' guessing the unfamiliar target words, e.g. sentence structures (long and/or complex sentences), the ability to infer the meanings of unfamiliar target words from the sentences, and background knowledge.

4.2.3 Comparison of results of scores of the version 1 and the version 2

context clue tests

In the version 1 context clue test, the participants were required to complete the test without any help, while in the version 2 context clue test they were provided with a glossary of meanings surrounding the unfamiliar target words in Thai. Table 7 presents the results of scores of the version 1 and the version 2 context clue tests.

Table 7 Comparison of scores of the version 1 and the version 2 context clue tests

Context clue tests	Mean \bar{X}	SD.	Mean \bar{X}	SD.	t-test	Sig. (2-tailed)
Version 1 (n=60)	0.08	0.28	1.07	0.76	10.972	*0.000
Version 2 (n=60)	1.15	0.80				

* $p < .001$

Table 7 indicates that the participants' version 1 test and version 2 test mean scores were 0.08 and 1.15 respectively. The results showed that scores of participants who were successful in guessing the meanings of the unfamiliar target words when the meanings of surrounding words were given in the version 2 test was significantly higher than the version 1 test.

The independent t-test result indicated that the mean score of the version 2 test was significantly higher than that of the version 1 test ($t = 10.972$, $p < .001$). This result suggested that having sufficient vocabulary knowledge was a determining factor for these learners to be able to guess the meanings of unfamiliar target words, but only this factor was not enough. There seem to be other factors obstructing the participants' guessing the meanings of unfamiliar target words as shown in Table 6, i.e. sentence structures, ability to infer the meanings of unfamiliar target words from the sentences, and background knowledge.

4.2.4 Summary of results from the version 2 context clues test

In overall, the major results from the version 2 context clue test can be summarized as follows.

4.2.4.1 Drawn from the results in Table 5, section 4.2.1, it seemed that recognizing sufficient words' meanings was important, but it may not be the main factor in helping the participants correctly guess the meanings of unfamiliar target words.

4.2.4.2 Based on the results from Table 5, context clues and signals might not help the participants guess the meanings of unfamiliar words as much as expected.

4.2.4.3 According to results from the version 2 test in Table 6, long and complex sentence factor was the most frequently reported difficulty the unsuccessful participants encountered when the meaning of the words was given. This suggested that complexity of sentence structures may affect the participants' guessing the meanings of unfamiliar target words.

4.2.4.4 Based on the results from Table 6, obtained from the version 2 test (with glossary in Thai provided), the majority of the participants reported the difficulties ranked from the lowest to the highest percentages: (1) inability to understand and translate the sentences (2.92%), (2) taking the wrong clues for guessing (12.28%), (3) a lack of background knowledge about sentences (18.71%), (4) inability to infer the meanings of the unfamiliar words from translated sentences (19.88%), (5) inability to recognize context clues to help in guessing the unfamiliar target words' meanings (28.02%) and ultimately, (6) long and complex sentences (49.71%). In effect, difficulties (1), (4) and (6) are related to complexity of sentence structures. Hence, it can be summarized that the difficulties reported by unsuccessful participants while completing the version 2 test were (1) complexity of sentence structures, (2) inability to recognize context clues, (3) a lack of background knowledge about sentences and (4) taking the wrong clues for guessing.

4.2.4.5 Results from the version 2 test overall indicated that (1) context clues, including punctuations and words serving as signals, e.g. *so* and *including*, may not help the participants to guess the meanings of unfamiliar target words as much as expected, (2) vocabulary knowledge is more important and (3) another factor affecting

L2 learners' success in guessing the meanings of unfamiliar words seems to be knowledge of sentence structure.

4.3 Summary of results from the version 1 and the version 2 context clue tests

Based on the collected data, the major results can be drawn below:-

4.3.1 Results from the version 1 test indicated that the majority of the participants had limited vocabulary knowledge. As a result, although they could identify context clues and/or signals, as instructed, they could not guess the meanings of the unfamiliar target words. This result is supported by the results from the version 2 test which showed that when these participants knew the meanings of all words surrounding unfamiliar target words, many more participants (increased from 2.08% to 28.75%, as proven in Table 5) could guess the correct meanings of the unfamiliar target words. Moreover, some of them who could not identify context clues and/or signals (30.43%) could make correct guesses. This can be inferred that context clues hardly benefit the participants in guessing the meanings of unfamiliar words as one may expect. The successful participants did not seem to solely rely on context clues to help them do the task. This result emphasizes that vocabulary knowledge is more vital than context clues in enabling L2 learners to guess the correct meanings. As suggested by the result, they should recognize 60% of the content words in the sentence.

4.3.2 Results from the version 2 test also showed that although the participants recognized all word meanings surrounding the unfamiliar target words from the given glossary and identified context clues and/or signals, many (71.25%) were still unable to guess the unfamiliar words' meanings. This leads to an assumption that recognizing vocabulary meanings was important but may not be the only main factor which facilitates the participants to understand the unfamiliar words' meanings. As suggested by the results from Table 6, complexity of sentence structures may be another factor. This assumption is consolidated by the fact that long and complex sentences were the most frequently reported difficulty by the unsuccessful participants.

4.3.3 Analysis of the participants' accounts on the encountered difficulties reported while they were completing the two test versions revealed that the difficulties can be grouped into five main categories, including: (1) having insufficient vocabulary

knowledge (clearly shown from results in the version 1 test (without glossary in Thai)), to a large extent, (2) complexity of sentence structures (clearly shown from results in the version 2 test (with glossary in Thai provided)), to a lesser extent, (3) inability to recognize context clues, to a marginal extent, then (4) a lack of background knowledge; and, to the least extent (5) taking the wrong clues.

Chapter 4 has presented and summarized the results from collected and analyzed data. The major results will be discussed in chapter 5 in order to answer the research questions.

CHAPTER 5

DISCUSSION

This chapter discusses the findings in the previous chapter. The purpose of the present study is to investigate whether context clues can benefit Thai grade 12 high school EFL students in guessing the meanings of unfamiliar words. It also aims to investigate the students' difficulties in using context clues to guess the meanings of unfamiliar words. The major findings of the present study are discussed according to the research questions as follows.

5.1 Question 1: Can context clues benefit Thai grade 12 high school EFL students in guessing the meanings of unfamiliar words?

The findings from the version 1 context clue test (without given correct glossary in Thai) showed that context clues hardly benefited the participants. Results from Table 3 that the participants who were able to correctly identify context clues (10.21%) and signals (31.06%) could not guess the meanings of the unfamiliar target words. As the matter of fact, there were only five participants out of 60 (2.08%, which is very low) who could correctly identify context clues and signals and guess the meanings correctly. Moreover, the results from the version 2 context clue test (with glossary in Thai provided) indicated that some participants could identify the given context clues (14.62%) and signals (33.92%), but they could not guess the meanings of the unfamiliar target words. In contrast, some participants who could not identify the context clues and/or signals (30.43%) could make correct guesses (see Table 5).

The finding that context clues hardly benefited the participants in guessing the meanings of the unfamiliar words resulted from their inability to understand and translate the sentences. This is because the participants had very limited vocabulary knowledge (lower than the text coverage (Hirsch, 2003)) while completing the version 1 test. Vocabulary knowledge plays an important role in reading comprehension in that if the learners do not have an adequate amount of vocabulary knowledge, they cannot understand a reading passage (Rahmani, 2007) and a recommended text

coverage threshold is 90-95% (Hirsch, 2003). Vocabulary contains content words (Context clues) which help the learners better understand context surrounding the unfamiliar words in order to comprehend the sentences. In the present study, the participants were required to translate the sentences in both the version 1 and version 2 tests so as to elicit their comprehension of the texts. The results from the version 2 test (with glossary in Thai provided) supported this finding, which indicated that many more participants could guess the meanings of the unfamiliar target words (increased from 2.08% to 28.75%). However, although the participants recognized all words meaning surrounding unfamiliar words, the majority of them (71.25%) still could not make correct guesses. This is likely because they lacked sentence structures knowledge. Complex and long sentences made the sentences too difficult to be translated, i.e. to understand. They had to use knowledge about language structures concurrently for guessing the meanings of the unknown words (Thaisuriya, 2006). When the participants did not have sentence structures knowledge, it made them unable to realize the relationships between the words to make sense of the string of those words, in order to, in turn, grasp adequate context necessary to understand and translate the whole sentences and correctly guess the meanings of the unfamiliar target words. Thus, a lack of vocabulary and sentence structures knowledge may be the main factors affecting the participants' inability to recognize sufficient context and understand and translate the sentences which made context clues hardly facilitate the participants to guess the meanings of the unfamiliar target words.

To demonstrate that context clues and signals can hardly help the learners to guess the meaning of an unknown word, two sentences from the test are used for discussion. In the definition clue sentence, "*Police arrested some villagers who were involved in, or linked to, the production of drugs.*", the word "or" was supposed to signal to the participants that the definition of the word "*involved in*" was given, but it did not provide them anything beyond that. It does not have any lexical clue to help the participants guess the meaning of the unknown word. In this case, the participants needed to recognize both the word "or" and "*linked to*" for them to understand the word "*involved in*". Likewise, in the effect clue sentence, "*A police spokesman said the fighting may have been caused by criminals trying to scare people so they can go into house and steal*".", the word "so" only signals that the clause which came before

it indicated the cause and the clause which came after it showed the result or effect. It did not offer any further clue to the participants, either lexical or pragmatic clue. It did not permit the learners to understand the meanings of any words in the clause and use them to guess the meaning of the unfamiliar word. In this case, the participants needed to not only know the word “*steal*”, but also they had to understand the wider context in the sentence and the relationship between the two clauses in order to understand the word “*criminals*”. Therefore, context clues seem not beneficial enough to the learners for guessing the meanings of unfamiliar words. The important factors are the vocabulary and sentence structures knowledge.

The finding in the present study differs from those in the previous studies, (Karbalaee et al. (2012); Krasaekarn (2008); Mongkolkeha (2008); Nutthakrai (2006); Pannara (2008); Thaisuriya (2006)). These studies indicated that using context clues could benefit students in guessing the unfamiliar words’ meanings. This finding differs from the present study’s finding because of difference of test design.

The test design used in the previous studies (Krasaekarn (2008); Nutthakrai (2006); Pannara (2008); Thaisuriya (2006)) were multiple choice tests, which required the students to only choose the correct choice to complete the test. In particular, two of those (Krasaekarn (2008); Pannara (2008)) simply asked the students to short answer only write the correct meanings of the unfamiliar words in English for completing the tests. As a result, the students might simply copy the definition of the words without understanding (Krasaekarn, 2008) as the author herself/ himself pointed out. Obviously, such test design made the researchers unable to isolate the real factors such as understanding sentence structures, recognizing context clues or signals, or knowing the meanings of words surrounding unfamiliar words. Thus, some previous studies were not designed to discern possible determining factors that helped the participants to guess the meanings of the unfamiliar words, or even generate misleading results.

On the other hand, the present study required the participants to translate the whole sentences containing the unfamiliar words into Thai and identify the context clues or signals that helped them guess the meanings of the unfamiliar target words. While completing the version 1 test (without given correct glossary in Thai), the participants had to state the meanings of each word and identify the context clues

and/or signals in the sentences, and then guess the meanings of the unfamiliar target words. While in completing the version 2 test (with glossary in Thai provided), the participants had to do the same instructions as in the other version, except stating the meaning of the content words. It is the results from the version 2 test which allowed the researcher to realize another determining factor, i.e. having sufficient knowledge of sentence structures.

In addition, while completing the version 2 test (with glossary in Thai provided), the participants had to understand make use of their available sentence structures background knowledge, which will be discussed in section 5.2 to correctly guess the meanings of the unfamiliar target words. Accordingly, the participants could not copy the correct meanings from the given sentences. In this way, for example, for the “definition clue” sentence, the participants in the present study could not simply choose and copy an English word in the given sentence to complete the test. Providing the meaning in Thai prevented them from making such guess work. Therefore, according to the participants’ performance while completing the tests, the present study was designed to evidently isolate possible factors the participants used or did not use to guess the meanings of the unfamiliar target words, which differs from the previous studies.

5.2 Question 2: What are the common difficulties that Thai grade 12 high school EFL students encounter when using context clues to guess the meaning of unfamiliar words?

The common difficulties that Thai grade 12 high school EFL students encountered and reported when using context clues to guess the meanings of unfamiliar words while completing the version 1 test (without given correct glossary in Thai) and the version 2 test (with glossary in Thai provided) can be grouped into five main categories, including: (1) having insufficient vocabulary knowledge, (2) complexity of sentence structures, (3) inability to recognize context clues, (4) a lack of background knowledge and (5) taking the wrong clues. All five difficulties will be presented and discussed.

(1) Having insufficient vocabulary knowledge

Having insufficient vocabulary knowledge made the participants unable to guess the meanings of unfamiliar target words. This impeded the participations from understanding and making correct translation of the sentences, which in turn made them unable to understand sufficient context, and, finally, unable to guess the meanings of the unfamiliar target words as described in section 5.1.

(2) Complexity of sentence structures

The long and complex sentences contain a few clauses, not one, and many content words. It often contained coordinating conjunctions and complex noun phrases (e.g. “*the male hybrids of Neanderthals*”) which made the sentence very long and complex for the participants. Although they know all meanings of words surrounding an unfamiliar word (in the version 2 test), they still could not understand and translate the sentences and correctly guess the meanings of the unfamiliar target words. Thus, the complexity of sentence structures made the learners unable to translate the sentences

(3) Inability to recognize context clues

The participants who reported this difficulty could not identify the words, coming before or after the signals, which are supposed to be the clues to help them to guess the meanings of the unfamiliar target words. This might make them unable to understand the relationship between clauses or ideas in the sentences.

For example, in this sentence, “*Police arrested some villagers who were **involved in**, or linked to, the production of drugs.*”, some unsuccessful participants did not know that “*linked to*”, which came after the signal “*or*” was the context clue, and “*or*” was a signal for a definition, in this case it signaled for the definition of “*involve in*”. Thus, they might not know the relationship between “*involve in*” (an unfamiliar word) and “*linked to*” (a definition or a context clue), so they could not recognize “*link to*” as the context clue to help in guessing the meaning of the word “*involve in*” correctly.

Background knowledge includes topic familiarity, knowledge in the terminologies, and vocabulary involved in the topic (Chou & Tze, 2011). If learners do not have prior knowledge of the topic, it is impossible for them to make sense of the passage, even though they know the meaning of the given words (Sedita, 2005). In

addition, a reader may also infer a word's definition by using context clues combined with their own logic or prior knowledge (Hartmann & Blass, 2007 cited in Reardon, 2011). Therefore, if learners have no background knowledge about what they were reading, they could not come to an idea to guess word meanings (Laufer, 1997 cited in Rahmani, 2007).

The example of sentence the unsuccessful participants reported about a lack of background knowledge is "*They may have made babies, but the male hybrids of Neanderthals, or stone age humans, and humans weren't very fertile.*". The participants reported that this sentence contained unfamiliar, and new topic and content to them. It contained new vocabulary involved the difficult topic e.g. "*hybrids*", "*Neanderthals*", and "*stone age*", which made the participants unable to make sense of the sentence. Although they could translate the sentence, with the help of the provided glossary in the version 2 test, their lack of background knowledge about the content made them unable to understand and use context clues, e.g. "*hybrids*" and "*Neanderthals*", to guess the meaning of the word "*fertile*". Hence, a lack of background knowledge about the sentences made the learners unable to understand the texts and guess the meanings of the unfamiliar words.

(5) Taking the wrong clues

Taking the wrong clues causes difficulties for guessing the unknown words' meanings. At times, learners who try to look for contextual clues may encounter confusion clues in a sentence. It can be the difficult task for the students, which often leads to choosing the wrong words for the clues and to make mistakes in responding the questions (Ali et al., 2012). Furthermore, although the students know the meaning of surrounding words, phrases, or sentences in the text, incorrect guessing still occurs. The students might fail to get the right meaning of the unknown word because they took the wrong clues in inferring meaning (Andayani & Rasdyati, 2001).

The participants in the present study also experienced this difficulty. They reported that they took the wrong clues to help them guess the meanings of the unfamiliar words. For example, in this sentence "*They may have made babies, but the male hybrids of Neanderthals, or stone age humans, and humans weren't very fertile.*", 21 participants out of 60 identified "*or*" to be the clue instead of "*but*" (see Table 6). This may result from the fact that the sentence contained two signals ("*or*"

and “*but*”) in this sentence which misled these participants to using the wrong signal. This could also be assumed that the signal “*or*” is more salient to the participants than the signal “*but*” (see Table 3). The meaning of the unfamiliar word “*fertile*” they gave was “*stone age humans*” which was context clues after the signal “*or*”. They overlooked the signal “*but*”, which hints the contrast of idea between the two clauses, indicating that “*fertile*” must be similar in meanings as the phrase “*made babies*”. Thus, taking the wrong clues for guessing can be the difficulty which makes the learners unable to guess the meanings of the unfamiliar words.

Based on the results of the present study discussed in this chapter, the research questions are answered in the next and final chapter.

CHAPTER 6

CONCLUSION

This last chapter contains three main sections. These are the conclusion of the study, the recommendations for pedagogical implications, and the suggestions for further study.

6.1 Conclusion

The present study has been conducted for investigating (1) whether context clues can benefit Thai grade 12 high school EFL students in guessing the meanings of unfamiliar words, and (2) exploring the students' difficulties in using context clues to guess the meanings of unfamiliar words and finding out possible sources of these difficulties.

The findings of the present study can be summarized as follows:

(1) The context clues hardly benefited the participants in guessing the meanings of the unfamiliar words. Only recognizing context clues may not be useful enough to help the learners in guessing the meanings of the unfamiliar words. They also need to understand the context surrounding the unfamiliar target words. That is they had to recognize at least 60% of the content words in the sentence (text coverage) and understand the sentence structures. These two factors have been found to be the influential factors for the participants to understand the context and translate the sentence, both of which, in turn, helped them guess the meanings of the unfamiliar target words.

(2) The common difficulties reported while the participants were using context clues to guess the meanings of unfamiliar words included (1) having insufficient vocabulary knowledge, (2) complexity of sentence structures, (3) inability to recognize context clues, (4) a lack of background knowledge and (5) taking the wrong clues.

According to the present study, results indicated that the use of context clues was not a key for success in guessing the unfamiliar words' meanings. The more important factors affecting the students' ability to guess the meanings of unfamiliar target word

included, respectively, vocabulary knowledge, sentence structures knowledge, and background knowledge about content in the texts. The ability to identify context clues or signals only helped the students recognize signals indicating what type of idea is being presented understand the relationship between clauses or ideas in the sentences. The students may not understand sufficient context in the clauses which comes before or after the signals necessary for them to guess the meanings of unfamiliar words. Therefore, teachers should be aware of this finding and provide adequate time for the students to practice recognizing context clues.

6.2 Recommendations for pedagogical implications

The recommendations for teaching and learning the use of context clues for guessing the meanings of the unfamiliar words of the present study are presented below.

Only the use of signals and context clues may not facilitate students to guess the meanings of unfamiliar words in the sentences. Vocabulary knowledge has been proven to be more important. Additionally, complexity of sentence structures, background knowledge about the text, and taking the wrong clues for guessing have also been found to be great challenges for the students. These factors are obtained from the context clue test results and what the participants encountered and reported while using context clues to guess the meanings of the unfamiliar words. Consequently, teachers should be better aware of difficulties in using context clues to guess the meanings of unfamiliar words and find effective ways to minimize these difficulties and enhance learners' ability to guess meaning of vocabulary in the future.

The teachers should develop the learners' ability about grammar and sentence structures knowledge to enable them to understand the relationships among words in the sentences and the context to pick up the right clues, skills of recognizing context clues so that they do not take the wrong clues, and the ability to infer or guess the unfamiliar words' meanings. By this way, it might help to improve learners' ability to guess unfamiliar words.

6.3 The suggestions for further study

The following suggestions are proposed for further study.

(1) The further study should be designed with additionally various types of context clues in order to find different results and new findings which will be useful to learning and teaching using context clues to guess the meanings of unfamiliar.

(2) In order to help students have opportunities for learning and practicing recognizing context clues or signals and make them more salient to the students better, the teachers should extend the length of time for instruction. This may help the students understand the relationship between many clauses or ideas in the sentences and surrounding words in the sentences.

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APPENDICES

APPENDIX A
HANDOUT ABOUT CONTEXT CLUES

Context clues

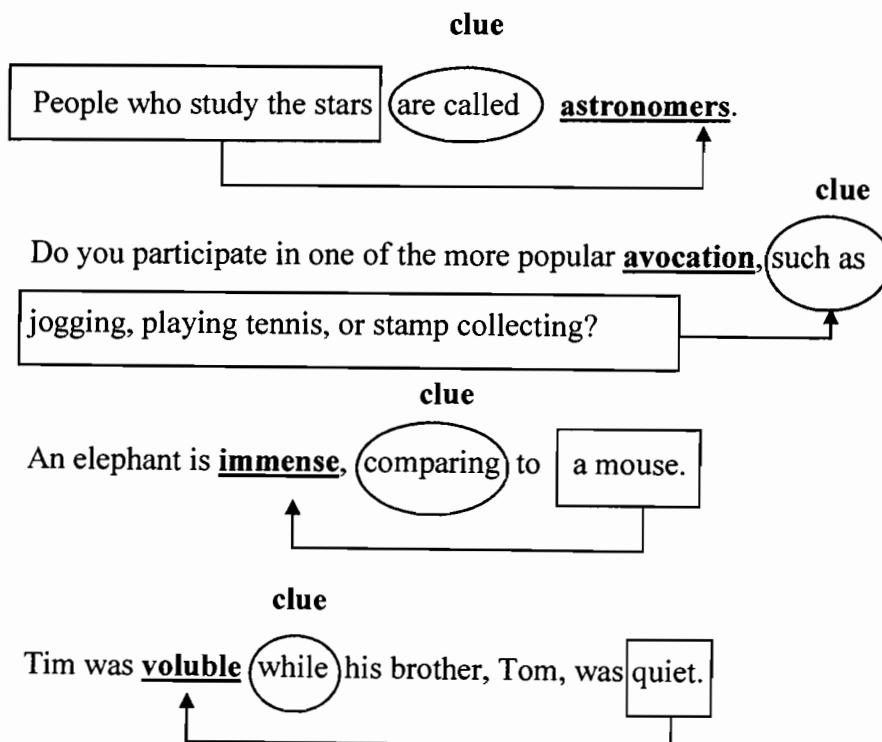
Context clues are hints or bits of information that help us figure out the meaning of difficult or unfamiliar words we read. Context clues are words, phrases or punctuations that surround a word, which help explain the word's meaning.

Why are context clues important?

Context clues help you build on the vocabulary you have in order to learn the meanings of words you do not know. Also context clues help you to understand and figure out meaning of new and difficult words.

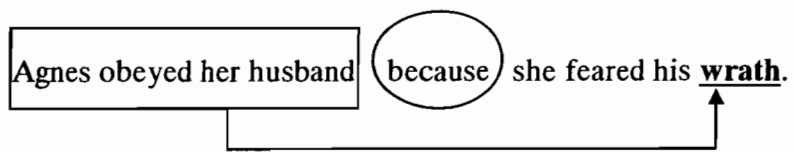
There are several types of context clues, but we will learn only four types of it which include (1) **Definition or Synonym clue**, (2) **Example clue**, (3) **Comparison and Contrast clues**, and (4) **Cause and Effect clues**.

Examples of context clues



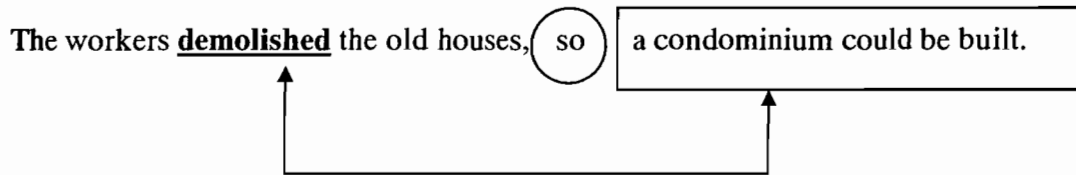
clue

Agnes obeyed her husband **because** she feared his wrath.



clue

The workers demolished the old houses, **so** a condominium could be built.



Definition or Synonym clue

Definition clue is a word or phrase which is directly and easily defined by (short) other known, or simple, or familiar words.

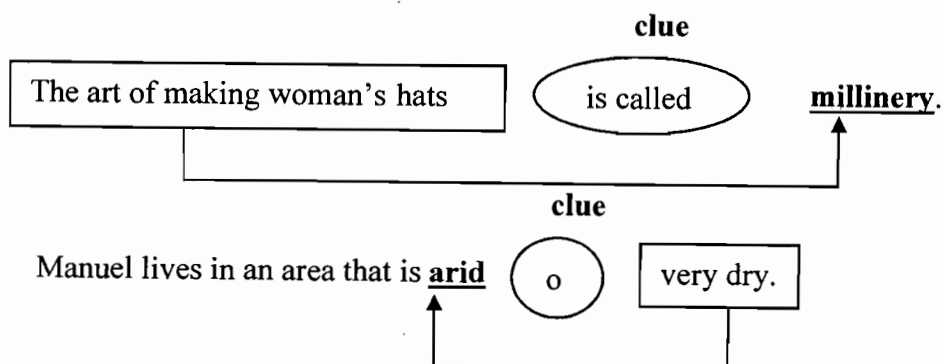
Synonym clue is a word or phrase which has the same meaning as a difficult word or unknown word.

Definition or Synonym clue may be provided next to the unknown word in order to help readers understand meaning of an unfamiliar word easily.

Signal words and punctuations which hint the definition or synonym clue are

verb to be	mean(s)	refer to
is /are defined as	described as	known as
is/ are called	called	what this means is
consist(s) of	may be seen as	thought of
can be defined as	that is	also known as or
synonyms	is referred to as	sometimes called
is/are known as	by [] is meant..	similar to
comma (,)	dash (-)	parentheses ()

Example



Exercise 1

Instructions Read the following statements and find the clue or signal that hints the meaning of each highlighted word. Write the clues or signals and the meanings of the highlighted words in the blanks provided.

1. When you have an **alternative**, it means you have a choice.

Clue/Signal:.....

Alternativemeans

2. A **batch** is a group of a large quantity of something.

Clue/Signal:.....

Batch means

3. **Utilities** refer to public services of electricity, water, gas, and telephone.

Clue/Signal:.....

Utilities means

4. A **committee** may be defined as any group interacting in regard to a common purpose.

Clue/Signal:.....

Committee means

5. The three main groups of dinosaurs are **herbivores** (animals that eat plants).

Clue/Signal:.....

Herbivores means

6. Newspaper headlines often show the **bias**, or feeling, of the writer about the news story.

Clue/Signal:.....

Bias means

7. There was a lot of **furor** – many complaints – about the traffic jam.

Clue/Signal:.....

Furor means

8. Congress voted to **augment**, or increase, the job training program.

Clue/Signal:.....

Augment means

9. When I visited Canada last year, the weather was **frigid**, that is, very cold.

Clue/Signal:.....

Frigid means

10. Are you **averse** – opposed – to the court decision?

Clue/Signal:.....

Averse means

Example clue

The examples clues refer to the means of giving the meaning of unknown words by illustrating in a different sentence or immediately following the signal word. The examples may be the sub category of unfamiliar words which helps to get the meaning of words easily.

Signal words and punctuations which hint the example clue are

such as	like	for example	for instance
is/are	e.g.	especially	including
include	colon (:)	comma (,)	dash (-)

Example

clue

Various means of conveyance - for example cars, subway, and ships are used in world-wide.

clue

Canines, such as collies, pugs, and poodles, are good pets.

Exercise 2

Instructions Read the following statements and find the clue or signal that hints the meaning of each highlighted word. Write the clues or signals and the meanings of the highlighted words in the blanks provided.

1. The students in this school are from **diverse** areas of the world, for example, Korea, Greece, France, and Thailand.

Clue/Signal:.....

Diverse means

2. It was not a neat, modern-looking **apparatus** like a telephone, camera, or radio. This one had many parts spread over the table, all connected to a small box in the middle.

Clue/Signal:.....

Apparatus means

3. The school provides training in **culinary** arts, especially in the preparing of sauces and desserts.

Clue/Signal:.....

Culinary means

4. **Edifices**, such as skyscrapers and condominiums, are found in cities.

Clue/Signal:.....

Edifices means

5. **Condiments**, e.g., pepper, salt, and mustard, make food taste better.

Clue/Signal:.....

Condiments means

6. John was very **selfish**. For instance, he would not let anyone use his pens or look at his book.

Clue/Signal:.....

Selfish means

7. There are many types of fictional **genres**: novels, essays, poetry, and plays are some.

Clue/Signal:.....

Genres means

8. English has lots of **homophones**, such as two/too and bear/bare.

Clue/Signal:.....

Homophones means

9. In the big windows at Robinson there are several **displays** like shirts, jeans, perfume, earrings and other things sold in the store so that the people who pass by can look at them.

Clue/Signal:.....

Displays means

10. The library has many **facilities** to help people find information. These facilities include the library's books, newspapers, and magazines; the collections of films and tapes; the computer terminals; and the reference room where librarians can help you find many different kinds of information.

Clue/Signal:.....

Facilities means

Comparison and Contrast

The comparison and contrast clues give meaning of unknown word by offering word or showing the similarities or differences which should help the readers to deduce the meaning of the unknown words.

Signal words which hint the comparison clue are

as/as...as	like/alike,	similar to	resemble
similarly likewise	correspondingly	in the same way	in like manner
comparing	compared with	as if/as though	

Signal words which hint the contrast clue are

yet/but	however	nevertheless	though although
even though	while	whereas	on the other hand
on the contrary	in contrast	conversely	in spite of

Example

The machine is buzzing like the humming sound of the bees.



She is usually loquacious, but quiet.



Exercise 3

Instructions Read the following statements and find the clue or signal that hints the meaning of each highlighted word. Write the clues or signals and the meanings of the highlighted words in the blanks provided.

1. It was bright yesterday, but today it is **gloomy**.

Clue/Signal:.....

Gloomy means

2. The **mallet** was shaped like a hammer but was made of wood.

Clue/Signal:.....

Mallet means

3. He writes to her **constantly**; however, she rarely answers his letter.

Clue/Signal:.....

Constantly means

4. A **wagon** is similar to a cart which is used to carry goods.

Clue/Signal:.....

Wagon means

5. She was as **elegant** as an angel out of heaven.

Clue/Signal:.....

Elegant means

6. I am usually **industrious**, but today I am too lazy to work.

Clue/Signal:.....

Industrious means

7. Though our teacher is very generous, she can be very **nefarious** when we make her angry.

Clue/Signal:.....

Nefarious means

8. The **marmoset**, although smaller, is much like the other monkeys in the cage.

Clue/Signal:.....

Marmoset means

9. Usually he is a **laggard**; nevertheless, he has been energetic and worked hard.

Clue/Signal:.....

Laggard means

10. While Jack is happy, with plenty of money to spend, his sister is suffering from **poverty**.

Clue/Signal:.....

Poverty means

Cause and Effect clues

The cause and effect clues are clues which help readers know meanings of words from the relationship between a cause and an effect. The readers can deduce the meaning of the unknown words in the information or idea in the result/ effect-cause. On the other hand, the readers can get the meaning of the unknown words in the cause-clause.

Signal words which show causes are phrases introduced by a word like

because	since as	now that	for
because of	owing to	due to	on account of

Signal words indicating an effect are, for example,

so	therefore	hence thus,	consequently cause
as a result	result in	cause	that is why
mean	so that	in order that	with the result that
the final result is that		accordingly	

Example

We can see things through a piece of glass

transparent.



clue

because

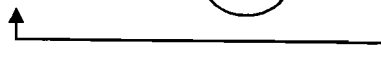
it is

clue

Travelers needed food and shelter for the night,

s

inns were built and market opened.



Exercise 4

Instructions Read the following statements and find the clue or signal that hints the meaning of each highlighted word. Write the clues or signals and the meanings of the highlighted words in the blanks provided.

1. The factory has been closed for two months because the workmen have been **striking** for higher pay.

Clue/Signal:.....

Striking means

2. The eagle builds her nest high on a rocky cliff, so she will have no **apprehension** that anyone will steal her eggs.

Clue/Signal:.....

Apprehension means

3. Because of the war, the government **imposed** a new tax on the people.

Clue/Signal:.....

Imposed means

4. Somsak has stopped reading linguistics journals for years; therefore, he finds himself **ignorant** of new ideas in this field.

Clue/Signal:.....

Ignorant means

5. Many people want to **settle** in Bangkok because there is a better chance of having a higher education.

Clue/Signal:.....

Settle means

6. They knew that the young people needed a meeting place, so they **converted** an unused house into a teen center.

Clue/Signal:.....

Converted means

7. He stood at the back of the crowd, so he couldn't **get a glimpse** of the king when he passed by.

Clue/Signal:.....

Get a glimpse means

8. Knowing that the snake was under the table cause a great **commotion** in the room.

Clue/Signal:.....

Commotion means

9. Driving while drunk endangers other people's lives, so **penalties** are more severe than careless driving.

Clue/Signal:.....

Penalties means

10. As the lawyer's health **deteriorated**, his work suffered too, because he was unable to give much time to it.

Clue/Signal:.....

Deteriorated means

APPENDIX B
VOCABULARY TEST AND
CONTEXT CLUE TESTS: VERSION 1 AND VERSION 2

Vocabulary test

Instructions: Write the Thai meanings of these words in the given box.

Word	Thai meaning
1. involved in	
2. junk	
3. beverages	
4. equipment	
5. fertile	
6. symptoms	
7. criminals	
8. violent	

Context clue test**Version 1**

- Instructions:**
1. Read the whole sentences and circle unknown word(s).
 2. Try to translate the whole sentences into Thai and underline the Thai meaning of the highlighted word if you know its meaning.
 3. Identify the major context clues or signals that help you know or guess the meaning of the highlighted words (you can identify more than one word).
 4. If you do not know the meaning of the highlighted words, explain what difficulties you encounter.

Definition or synonym clues

1. Police arrested some villagers who were **involved in**, or linked to, the production of drugs. (Modified from a sentence in Bangkok Post, January 4, 2014: 7)
 - a. Circle unknown word(s) in the sentence.
 - b. Translate the whole sentence into Thai.....
.....
.....
 - c. Identify the major context clues or signals that help you to know or guess the meaning of **involved in**
.....
.....
 - d. If you do not know the meaning of **involved in**, explain what difficulties you encounter:
.....
.....

Example clues

2. Coca-Cola and PepsiCo both make an array of other **beverages**, including bottled water, orange juice and sports drinks. (Bangkok Post, April 2, 2014: B12)
 - a. Circle unknown word(s) in the sentence.
 - b. Translate the whole sentence into Thai.....
.....
.....
 - c. Identify the major context clues or signals that help you to know or guess the meaning of **beverages**.
.....
.....
 - d. If you do not know the meaning of **beverages**, explain what difficulties you encounter:
.....
.....

Contrast clues

3. They may have made babies, but the male hybrids of Neanderthals, or stone age humans, and humans weren't very **fertile**. (Slightly modified from a sentence in Bangkok Post, January 31, 2014: 8)

a. Circle unknown word(s) in the sentence.

b. Translate the whole sentence into Thai.....
.....
.....

c. Identify the major context clues or signals that help you to know or guess the meaning of **fertile**.

.....
.....

d. If you do not know the meaning of **fertile**, explain what difficulties you encounter:

.....
.....

Effect clue

4. A police spokesman said the fighting may have been caused by "**criminals** trying to scare people so they can go into house and steal". (Bangkok Post, January 6, 2014: 6)

a. Circle unknown word(s) in the sentence.

b. Translate the whole sentence into Thai.....
.....
.....

c. Identify the major context clues or signals that help you to know or guess the meaning of **criminals**.

.....
.....

d. If you do not know the meaning of **criminals**, explain what difficulties you encounter:

.....

Context clue test

Version 2

- Instructions:**
1. Read the whole sentences and try to translate into Thai and underline the Thai meaning of the highlighted word if you know its meaning.
 2. Identify the major context clues or signals that help you know or guess the meaning of the highlighted words (you can identify more than one word).
 3. If you do not know the meaning of the highlighted words, explain what difficulties you encounter.
 4. In this test, the meanings of most words are given in Thai. You are allowed to ask about the Thai meanings of any words in the test.

Definition or synonym clue

1. Police arrested some villagers who were **involved in**, or linked to, the production of drugs. (Modified from a sentence in Bangkok Post, January 4, 2014: 7)

police = ตำรวจ arrest = จับกุม some = บางส่วน villager = คนในหมู่บ้าน

who = ผู้ซึ่ง or = หรือ link to = เชื่อมโยงกับ, เกี่ยวข้องกับ

production = การผลิต of = ของ drug = ยาเสพติด

a. Translate the whole sentence into Thai:.....

.....
.....

b. Identify the major context clues or signals that help you to know or guess the meaning of **involved in**.

.....

c. If you do not know the meaning of **involved in**, explain what difficulties you encounter:

.....
.....

Example clue

2. Coca-Cola and Pepsi Co both make an array of other **beverages**, including bottled water, orange juice and sports drinks. (Bangkok Post, April 2, 2014: B12)

Coca-Cola = ชื่อเฉพาะของบริษัท and = และ Pepsi Co = ชื่อเฉพาะของบริษัท both = ทั้งสอง

make = ทำ, ผลิต array = ขบวน, ลำดับ of = ของ other = อื่น

include = ประกอบด้วย bottled = ที่อยู่ในขวด water = น้ำ orange = ส้ม

juice = น้ำผลไม้ and = และ sports = เกี่ยวกับกีฬา drink = เครื่องดื่ม

a. Translate the whole sentence into Thai:.....

.....

b. Identify the major context clues or signals that help you to know or guess the meaning of **beverages**.

.....

c. If you do not know the meaning of **beverages**, explain what difficulties you encounter:

.....

Contrast clue

3. They may have made babies, but the male hybrids of Neanderthals, or stone age humans, and humans weren't very **fertile**. (Modified from a sentence in Bangkok Post, January 31, 2014: 8)

they = พวกเขา	may = อาจจะ	make = ผลิต	baby = ทารก
but = แต่	male = เกี่ยวกับเพศชาย	hybrid = ลูกผสม	of = ของ
Neanderthal = มนุษย์ยุคหิน	or = หรือ	stone age = ยุคหิน	human = มนุษย์
and = และ	very = มาก		

- a. Translate the whole sentence into Thai:.....

.....

.....

- b. Identify the major context clues or signals that help you to know or guess the meaning of **fertile**.

.....

.....

- c. If you do not know the meaning of **fertile**, explain what difficulties you encounter:

.....

.....

Effect clue

4. A police spokesman said the fighting may have been caused by “**criminals** trying to scare people so they can go into house and steal”. (Bangkok Post, January 6, 2014: 6)

police = ตำรวจ	spokesman = ผู้แถลงข่าว	say = พูด	fighting = การต่อสู้
may = อาจจะ	cause = ทำให้เกิด	by = โดย	try = พยายาม
to = เพื่อ	scare = ทำให้กลัว	so = ดังนั้น, เพราะว่า	they = พวกเขา
can = สามารถ	go into = เข้าไปใน	house = บ้าน	and = และ steal = ขโมย

a. Translate the whole sentence into Thai:.....

.....

b. Identify the major context clues that help you to know or guess the meaning of **criminals**.

.....

c. If you do not know the meaning of **criminals**, explain what difficulties you encounter:

.....

APPENDIX C
VOCABULARY TEST AND CONTEXT CLUE TESTS
IN THAI VERSION FOR THE PARTICIPANTS

แบบทดสอบคำศัพท์

คำสั่ง จงเขียนความหมายของคำศัพท์ในตารางต่อไปนี้เป็นภาษาไทย

คำศัพท์	ความหมายภาษาไทย
1. involved in	
2. junk	
3. beverages	
4. equipment	
5. fertile	
6. symptoms	
7. criminals	
8. violent	

แบบทดสอบ Context clues

รูปแบบที่ 1

คำสั่ง

1. อ่านประโยคดังต่อไปนี้และวงกลมคำศัพท์ทุกคำในประโยคที่นักเรียนไม่ทราบความหมาย
2. จงแปลความหมายของทุกประโยคในแต่ละข้อเป็นภาษาไทย และขีดเส้นใต้ความหมายของคำที่เป็นตัวหนา ถ้านักเรียนทราบความหมายของคำนั้น
3. จงระบุ context clues หรือ signals ที่สำคัญที่ช่วยให้นักเรียนทราบหรือเดาความหมายของคำที่เป็นตัวหนา (นักเรียนสามารถระบุได้มากกว่าหนึ่งคำก็ได้)
4. ถ้านักเรียนไม่ทราบความหมายของคำที่เป็นตัวหนานั้น ให้อธิบายปัญหาหรืออุปสรรคที่ทำให้ นักเรียนไม่ทราบความหมายของคำนั้น

1. Coca-Cola and Pepsi Co both make an array of other **beverages**, including bottled water, orange juice and sports drinks.

- จงแปลประโยคที่กำหนดให้เป็นภาษาไทยตามความเข้าใจของนักเรียน (ไม่จำเป็นต้องแปลคำต่อคำ) :

.....

จงบอก context clues หรือ signals ที่สำคัญที่นักเรียนใช้ในการเดาความหมายของคำว่า

beverages :.....

- ถ้านักเรียนไม่ทราบความหมายของคำว่า **beverages** จงอธิบายว่ามีปัญหาอะไรบ้างที่ทำให้
 นักเรียนไม่ทราบความหมายของคำ

.....

2. They may have made babies, but the male hybrids of Neanderthals, or stone age humans, and humans weren't very **fertile**.

- จงแปลประโยคที่กำหนดให้เป็นภาษาไทยตามความเข้าใจของนักเรียน (ไม่จำเป็นต้องแปลคำต่อคำ)

.....

- จงบอก context clues หรือ signals ที่สำคัญที่นักเรียนใช้ในการเดาความหมายของคำว่า **fertile**

.....

- ถ้านักเรียนไม่ทราบความหมายของคำว่า **fertile** จงอธิบายว่ามีปัญหาอะไรบ้างที่ทำให้นักเรียนไม่ทราบความหมายของคำ

.....

3. A police spokesman said the fighting may have been caused by "**criminals** trying to scare people so they can go into house and steal".

- จงแปลประโยคที่กำหนดให้เป็นภาษาไทยตามความเข้าใจของนักเรียน (ไม่จำเป็นต้องแปลคำต่อคำ)

.....

- จงบอก context clues หรือ signals ที่สำคัญที่นักเรียนใช้ในการเดาความหมายของคำว่า

criminals :

- ถ้านักเรียนไม่ทราบความหมายของคำว่า **criminals** จงอธิบายว่ามีปัญหาอะไรบ้างที่ทำให้นักเรียนไม่ทราบความหมายของคำ

.....

4. Police arrested some villagers who were **involved in**, or linked to, the production of drugs.

- จงแปลประโยคที่กำหนดให้เป็นภาษาไทยตามความเข้าใจของนักเรียน (ไม่จำเป็นต้องแปล

คำต่อคำ) :

.....

.....

- จงบอก context clues หรือ signals ที่สำคัญที่นักเรียนใช้ในการเดาความหมายของคำว่า

involved in:

- ถ้านักเรียนไม่ทราบความหมายของคำว่า **involved in** จงอธิบายว่ามีปัญหาอะไรบ้างที่ทำให้

นักเรียนไม่ทราบความหมายของคำ

.....

.....

แบบทดสอบ Context clues

รูปแบบที่ 2

คำสั่ง

1. อ่านประโยคดังต่อไปนี้และแปลความหมายของทุกประโยคเป็นภาษาไทย และขีดเส้นใต้ของคำที่เป็นตัวหนา ถ้านักเรียนทราบความหมายของคำนั้น
2. จงระบุ context clues หรือ signals ที่สำคัญที่ช่วยให้นักเรียนทราบหรือเดาความหมายของคำที่เป็นตัวหนา (นักเรียนสามารถระบุได้มากกว่าหนึ่งคำก็ได้)
3. ถ้านักเรียนไม่ทราบความหมายของคำที่เป็นตัวหนานั้น ให้อธิบายปัญหาหรืออุปสรรคที่ทำให้ นักเรียนไม่ทราบความหมายของคำนั้น
4. ในแบบทดสอบฉบับนี้ ครูได้ให้ความหมายของคำศัพท์เป็นภาษาไทยไว้แล้ว แต่นักเรียนสามารถถามความหมายของคำศัพท์ที่ยังไม่รู้เพิ่มเติมได้อีกในขณะทำแบบทดสอบ

1. Coca-Cola and Pepsi Co both make an array of other **beverages**, including bottled water, orange juice and sports drinks.

Coca-Cola = ชื่อเฉพาะของบริษัท	and = และ	Pepsi Co = ชื่อเฉพาะของบริษัท	both = ทั้งสอง
make = ทำ, ผลิต	array = ขบวน, ลำดับ	of = ของ	other = อื่น
include = ประกอบด้วย	bottled = ที่อยู่ในขวด	water = น้ำ	orange = ส้ม
juice = น้ำผลไม้	sports = เกี่ยวกับกีฬา	drink = เครื่องดื่ม	

- จงแปลประโยคที่กำหนดให้เป็นภาษาไทยตามความเข้าใจของนักเรียน (ไม่จำเป็นต้องแปล

คำต่อคำ) :

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- จงบอก context clues หรือ signals ที่สำคัญที่นักเรียนใช้ในการเดาความหมายของคำว่า

beverages :

- ถ้านักเรียนไม่ทราบความหมายของคำว่า **beverages** จงอธิบายว่ามีปัญหาอะไรบ้างที่ทำให้
 นักเรียนไม่ทราบความหมายของคำ

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2. They may have made babies, but the male hybrids of Neanderthals, or stone age humans, and humans weren't very **fertile**.

they = พวกเขา may = อาจจะ make = ผลิต baby = ทารก
 but = แต่ male = เกี่ยวกับเพศชาย hybrid = ลูกผสม of = ของ
 Neanderthal = มนุษย์ยุคหิน or = หรือ stone age = ยุคหิน human = มนุษย์
 and = และ very = มาก

- จงแปลประโยคที่กำหนดให้เป็นภาษาไทยตามความเข้าใจของนักเรียน (ไม่จำเป็นต้องแปลคำต่อคำ) :

.....

- จงบอก context clues หรือ signals ที่สำคัญที่นักเรียนใช้ในการเดาความหมายของคำว่า

fertile

- ถ้านักเรียนไม่ทราบความหมายของคำว่า **fertile** จงอธิบายว่ามีปัญหาอะไรบ้างที่ทำให้นักเรียนไม่ทราบความหมายของคำ

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3. A police spokesman said the fighting may have been caused by “**criminals** trying to scare people so they can go into house and steal”.

police = ตำรวจ spokesman = ผู้แถลงข่าว say = พูด fighting = การต่อสู้

may = อาจจะ cause = ทำให้เกิด by = โดย try = พยายาม to = เพื่อ

scare = ทำให้กลัว so = ดังนั้น, เพราะว่า they = พวกเขา can = สามารถ

go into = เข้าไปใน house = บ้าน and = และ steal = ขโมย

- จงแปลประโยคที่กำหนดให้เป็นภาษาไทยตามความเข้าใจของนักเรียน (ไม่จำเป็นต้องแปลคำต่อคำ)

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- จงบอก context clues หรือ signals ที่สำคัญที่นักเรียนใช้ในการเดาความหมายของคำว่า

criminals :

- ถ้านักเรียนไม่ทราบความหมายของคำว่า **criminals** จงอธิบายว่ามีปัญหาอะไรบ้างที่ทำให้นักเรียน

ไม่ทราบความหมายของคำ

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4. Police arrested some villagers who were **involved in**, or linked to, the production of drugs.

policeman = ตำรวจ arrest = จับกุม some = บางส่วน villager = คนในหมู่บ้าน

who = ผู้ซึ่ง or = หรือ link to = เชื่อมโยงกับ, เกี่ยวข้องกับ production = การผลิต

of = ของ drug = ยาเสพติด

- จงแปลประโยคที่กำหนดให้เป็นภาษาไทยตามความเข้าใจของนักเรียน (ไม่จำเป็นต้องแปลคำต่อคำ)

.....

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- จงบอก context clues หรือ signals ที่สำคัญที่นักเรียนใช้ในการเดาความหมายของคำว่า

involved in:

- ถ้านักเรียนไม่ทราบความหมายของคำว่า **involved in** จงอธิบายว่ามีปัญหาอะไรบ้างที่ทำให้

นักเรียนไม่ทราบความหมายของคำ

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APPENDIX D
ORIGINAL AND MODIFIED SENTENCES
FROM BANGKOK POST

Definition or synonym clue

Original sentence: Police put together a raid with helicopters, speedboats and paramilitary forces from four cities to overrun a small village of Boshe, where they suspected more than a fifth of households were involved in, or linked to, production and trafficking of drugs. (Bangkok Post, January 4, 2014: 7)

Modified sentence: Police arrested some villagers who were involved in, or linked to, the production of drugs. (Modified from a sentence in Bangkok Post, January 4, 2014: 7)

Example clue

Original sentence: Coca-Cola and PepsiCo both make an array of other beverages, including bottled water, orange juice and sports drinks. (Bangkok Post, April 2, 2014: B12)

Contrast clue

Original sentence: They may have made babies, but the male hybrids of Neanderthals and humans weren't very fertile. (Bangkok Post, January 31, 2014: 8)

Modified sentence: They may have made babies, but the male hybrids of Neanderthals, or stone age humans, and humans weren't very fertile. (Modified from a sentence in Bangkok Post, January 31, 2014: 8)

Effect clue

Original sentence: A police spokesman said the fighting may have been caused by "criminals trying to scare people so they can go into house and steal". (Bangkok Post, January 6, 2014: 6)

CURRICULUM VITAE

NAME Jintanaporn Pasadee

DATE OF BIRTH August 23, 1985

PLACE OF BIRTH Detudom District, Ubon Ratchathani

EDUCATION 2004 Detudom School
2009 Bachelor of Education in English,
Surindra Rajabhat University

WORK EXPERIENCE 2009-2013 an English teacher at Nakrasaengsuksa
School, Detudom District, Ubon Ratchathani
2013-2014 an English teacher at Khokyangwittaya
School, Prasat District, Surin
2015-present an English teacher at Suraphinphitthaya
School, Lamduan District, Surin

ADDRESS 154 Moo 5, Klang, Detudom,
Ubon Ratchathani 34160

