CHAPTER ONE
INTRODUCTION

1.1 BACKGROUND

As our national educational industry grows, English is a very important school subject for second language learners. Learning English as a foreign language is becoming more and more important for L2 in Thailand. Having the necessary skills in English to compete in the expanding global job market is seen as crucial to many Thai university students. Being able to read well is a valuable attribute for young learners, so deficiencies in reading ability have become of increasing concern. Many young people entering the job market suffer because their reading skills are not good enough to fill out forms or understand instructions. Also, effective reading is particularly important for English as a foreign language (EFL) learners at university level because many of the exams are based around reading comprehension. English proficiency becomes an indispensable, important requirement for the students. The students are expected to understand what they read. Therefore, reading skills are of significant importance. Ozek and Civelek (2006, p. 3) state that reading is seen as an extremely complex activity involving a combination of perceptual, linguistic and cognitive abilities. For pedagogical purposes, reading comprehension is one obviously important skill for ESL students because they encounter English texts when doing research in the library or on the Internet. Besides this, the curriculum is based around English. The students who fail in reading jeopardize their educational careers. Not only is their educational growth impeded, but their reading patterns are so confused that reading may well become impossible.

Thai English teachers have used various reading activities to improve students' reading comprehension. However, EFL learners face a number of problems when trying to read English texts. This deficiency can limit their possible achievements. It is rare that students can attain success in university in spite of reading difficulties. Bond, Tinker, and Wasson (1984) mention that the disabled reader is the child who is so handicapped in reading that his educational career is in jeopardy. Therefore, TEFL teachers in Thailand need to discuss the factors that need to be considered in order to determine why some students are poor readers.

In this study we will discuss cognitive strategy use during pre-reading, while-reading and post-reading. In addition, we will discuss the absence of cognitive strategy use that needs to be developed for Thai students in the reading classroom.

Fourth year English minor students at Burapha University use a commercial text book in their English class. Students are asked to read articles from the text book in class, and they need to have understood what they have read in order to pass the exam. The reading part of the exam is important, and even students who are good at traditional grammar exercises can fail if they do not have a grasp of the reading.

Even experienced readers may not comprehend a text because of the way it is written, inadequate non-visual information on the reader's part, and sometimes the pressures or anxieties involved in the act of reading.

1.2 RESEARCH QUESTIONS

The study aims to find out the presence or absence of cognitive strategy use for pre-reading, while-reading, and post-reading.

1.2.1 Which cognitive strategies do the students use for silent reading ?

1.2.2 What cognitive strategies need to be developed for silent reading ?

1.3 OBJECTIVES OF THE STUDY

The purposes of the study are as follows:

1.3.1 To diagnose which cognitive reading strategies students used and did not use during the pre-reading stage.

1.3.2. To find out which cognitive strategies were used or not used during while-reading stage.

1.3.3. To study what sort of cognitive reading strategies were used or were not used during post-reading stage.

1.3.4 To look at which cognitive strategies need to be developed in order to be successful in reading.

1.4 SCOPE OF THE STUDY

1.4.1 The study aims to diagnose cognitive strategies that the students use and do not use for pre-reading, while-reading and post-reading in English reading comprehension only.

1.4.2 The twenty four subjects in the study were selected from fourth year students whose major is not English during the first semester 2007 academic year (June 2007 to September 2007). These students were considered to be of intermediate level ability.

1.5 LIMITATION OF THE STUDY

Since time was limited and data was surveyed from only 24 students from the fourth year English minor class at Burapha University, the findings may only be true for the students being subjected to this study and may not applicable to the general population.

1.6 DEFINITION OF TERMS

1.6.1 Metacognitive refers to the act or process of knowing or perception. In the simplest terms it means understanding the processes of knowing or perception Ozek and Civelek (2006, p. 2).

1.6.2 Cognitive skills refer to higher mental processes Ozek and Civelek (2006, p. 3).

1.6.3 Bottom-up models refer to models that emphasize what is typically known as “lower-level” reading processes consisting of word recognition and includes visual recognition of letter features, letter identification, the generation of grapheme-phoneme correspondence, and utilization of orthographic redundancies (Carrell, 1998, pp.2-3).

1.6.4 Top-down models refer to higher-level processes, diametrically opposed to those lower-level processes. Carrell (1998, pp. 2-3) states that top-down models all have in common a viewing of the fluent reader as being actively engaged in hypothesis testing as he proceeds through text.

1.7 SIGNIFICANCE OF THE STUDY

1.7.1 This study will diagnose cognitive strategies that the students employ and do not employ by looking at pre-reading, while-reading, and post-reading stages. The findings of this study may be useful to current teachers and administrators. The findings may facilitate suitable teaching styles and materials in the English curriculum. In addition, the findings may benefit future students entering Fundamental English or other levels.

1.7.2. This study will hopefully help EFL teachers deal with students who are not successful in reading. Also students will hopefully then raise their academic performance on the reading sections of the exams.

1.8 ORGANIZATION OF THE STUDY

The study contains the following:

1.8.1 Chapter 1 contains the introduction, rationale, purpose, hypotheses, scope and limitation of the study, basic assumptions, and definitions of terms and possible significance of the study.

1.8.2 Chapter 2 deals with the review of literature related to cognitive strategies.

1.8.3 Chapter 3 gives information about the subjects, the instrument, the procedure of study and the collection and analysis of the data.

1.8.4 Chapter 4 analyzes the results through relevant statistics.

1.8.5 Chapter 5 contains the summary, discussion of the findings and possible implications of the study. It also gives suggestions for further study.

CHAPTER TWO
REVIEEW OF LITERATURE

This chapter deals with the literature and research relevant to cognitive strategies.

The review of related literature addresses the following:

1. Cognitive Versus Metacognitive Strategies
2. Definition of Cognitive strategies
3. Model of Cognitive strategies
   3.1 Bottom-up models
   3.2 Top-down models

2.1 COGNITIVE VERSUS METACOGNITIVE STRATEGIES

2.1.1 Cognitive versus Metacognitive Strategies

There are two major categories for reading strategy. The first one is metacognitive reading strategies and the second one is cognitive reading strategies. Metacognitive strategies function to monitor or regulate cognitive strategies. Ozek and Civelek (2006, p. 1) mention that Skehan states that metacognitive stategies relate to thinking about the learning process, planning for learning, monitoring of comprehension or production while it is taking place, and self-evaluation of learning after the language activity is completed. Ozek and Civelek (2006, p. 3) also state that metacognitive strategies include checking the outcome of any attempt to solve a problem, planning one's text move, monitoring the effectiveness of any attempted action, testing, revising, and evaluating one's strategies for learning. Ozek and Civelek (2006, p. 3) think that metacognitive strategies are used to plan, monitor and regulate the reading as it occurs.

Neil (1999, p.2) points that metacognitive and cognitive strategies may overlap in that the same strategy, such as questioning, could be regarded as either a cognitive or a metacognitive strategy depending on what the purpose for using that strategy may be. For example, you may use a self-questioning strategy while-reading as a means of obtaining knowledge (cognitive), or as a way of monitoring what you

have read (metacognitive). Because cognitive and metacognitive strategies are closely intertwined and dependent upon each other, any attempt to examine one without acknowledging the other would not provide an adequate picture.

Knowledge is considered to be metacognitive if it is actively used in a strategic manner to ensure that a goal is met. Jones (2007, p.3) states that students may use knowledge in planning how to approach an mathematic exam: "I know that I (person variable) have difficulty with word problems (task variable), so I will answer the computational problems first and save the word problems for last (strategy variable). Neil (1999, p.2) said that simply possessing knowledge about one's cognitive strengths or weaknesses and the nature of the task without actively utilizing this information to oversee learning is not metacognitive.

2.2 DEFINITION OF COGNITIVE STRATEGIES

Devine (1997, p.148), state that cognitive strategies are seen as mental processes directly concerned with the processing of information in order to learn, that is for obtaining, storage, retrieval or use of information. Brown (1994, p.115), states that cognitive strategies are more limited to specific learning tasks and involve more direct manipulation of the learning material itself. Wasson (1994, p.46) mentions that cognitive strategies are useful tools in assisting students with learning problems because they are the use of the mind (cognition) to solve a problem or complete a task and they may also be referred to as procedural facilitators, procedural prompts or scaffolds.

Cognitive strategies provide learners with reading skills to solve problems and to complete tasks. Cognitive strategies serve to support the learners as they develop internal procedures that help them perform tasks. Reading comprehension is an area where cognitive self-questioning strategies can help learners understand what they read. Jordan (2005, p.1) states that the act of creating questions does not lead directly to comprehension. Instead, students search the text and combine information as they generate questions; then they comprehend what they have read (Ozek and Civelek, 2006, p. 2). The use of cognitive strategies can increase the efficiency with which the

learner approaches a learning task. The classroom tasks can include remembering and constructing sentences and paragraphs, making short notes, paraphrasing, and classifying information.

Ozek and Civelek (2006, p. 1) state that in a classroom where cognitive strategies are used, the teacher has an important role to build the skills to be learned for the reading task. In general, studies in both L1 and L2 reading research provide a binary division of cognitive strategies as bottom-up and top-down.

2.3 MODEL OF COGNITIVE STRATEGIES

As we can see that reading research from Ozek and Civelek (2006, p.3) provides a binary division of cognitive strategies as bottom-up and top-down.

2.3.1 Bottom-up models

Despite the problems of defining and measuring reading comprehension, most teachers try to help their students to successfully complete reading tests. In the classroom, calling and memorization are not enough, so teachers have tried to show students how to use reading skills to comprehend the text. Bottom-up processing, which is one approach, holds that reading is about decoding of words and goes on to meaning. It is clearly based on a text-based, or text-oriented, model of comprehension. As we can see, bottom-up theory states that readers construct the text from the smallest units such as letters to words to phrases to sentences, etc. The smallest units become so automatic that readers are not aware of how they operate. The Bottom-up model states that reading acquisition requires mastering and integrating a series of word recognition subskills. The bottom-up view of reading focuses on text-based processing; letters are linked to the form words, words are linked to form sentences, and sentences are linked to form ideas. Walker (1988, p.7) states that the parts of reading are put together to form the whole. Jones (2007, p. 1) mentions that the reader constructs the text from the smallest units which become so automatic that the readers are not aware of how they operate. That is why decoding is an earlier term for this approach.

2.3.2 Top-down models

A second approach is a top-down model. Devine (1986, p. 10) states that top-down theorists assume that meanings are already in the mind of readers. The top-down model emphasizes the importance of the reader's background knowledge in the reading process (Carrell, 1998, p. 4). According to this theory, readers make use of both the text and their background knowledge. Therefore, interaction of background knowledge and the text is essential for this approach (Ozek and Civelek, 2006, p. 2).

In top-down models, readers bring a great deal of knowledge, expectations, assumptions, and questions to the text and, given a basic understanding of vocabulary, they continue to read as long as the text confirms their expectation. Moreover, Jones, (2007, p.1) states that readers fit text into cultural, syntactic, linguistic or historical knowledge they already possess, then check back when new or unexpected information appears. Top-down models tend to emphasize such higher-level skills as the prediction of meaning by means of context clues or certain kinds of background knowledge at the expense of such lower-level skills such as rapid and accurate identification of lexical and grammatical forms (Carrell, 1998, p. 93).

Reading is essentially a passive skill that requires both top-down and bottom-up strategies operating interactively. The second language reader needs both bottom-up and top-down models for language reading skills. Top-down models state that students can comprehend the text even if they are not able to recognize each word.

Carrell (1998, p.62), also states that while reading, a variety of processes repeatedly occur in readers' minds, and with the help of top-down and bottom-up strategies, readers use pre-reading information to make some predictions about the text (Jones, 2007, p.1). Processing information is started at the sentence level. Readers focus on identification of the meaning and grammatical category of a word, sentence syntax, and text details, etc. While processing information provided by each sentence, readers check to see how this information fits, again employing bottom-up and top-down strategies such as background knowledge, prediction, getting the gist of a text, skimming, scanning, etc.

CHAPTER THREE

METHODOLOGY

This research attempts to discover reading difficulties and problems of fourth year English minor students. In addition, this study wants to investigate cognitive strategy use during the pre reading stage, the while-reading stage and the post reading stage. This chapter describes: (1) the subjects, (2) the materials, (3) the data collection and (4) data analysis.

3.1 SUBJECTS

The population was the total number of students from the fourth year English minor students from Burapha University consisting of 1 male and 23 females whose majors are indicated in the following table:

Table 1. Number of Students

Major	Number of students
Japanese	6
Chinese	3
Korean	1
Mass Communication	5
General Management	2
Social Development	1
Economy	2
Psychology	1
French	2
Thai	1
Total	24

3.2 MATERIALS

The instrument used in the study was a questionnaire, which was designed to research reading difficulties from cognitive strategy use. The questionnaire was divided into 2 parts as follow:

Part 1: The respondents' personal information

In this part, there are 4 questions focusing on the subjects' major, age, sex and level of the class.

Part 2: The 18 item questionnaire focused on cognitive strategy while reading in English. The 18 items in 5 categories were divided into positive and negative, and a Likert-scale of the following

Level of agreement

1 Strongly agree
2 Agree
3 No opinion
4 Disagree
5 Strongly disagree

3.3 INSTRUMENTS

The first method employed to collect data for this study was a survey. The instrument used in this study was a questionnaire designed specially for the purpose of this study.

The second method employed to clarify the collected data in detail for this study was an SPSS programme version 14.

3.4 PROCEDURES

To collect data, the two part- questionnaire was distributed to 24 randomly selected students, as shown in Table 1. All of the questionnaires were returned. Then, the completion of the data was crosschecked to verify the information. After verifying data, the questionnaires were sorted into the categories according to group of the subjects and were assigned codes for entry into the computer.

3.5 DATA ANALYSIS

In order to analyze the data, SPSS/PC (Statistical Package for the Social Science on Personal Computer) Version 14 Program was used. The data was analyzed as follows:

3.5.1 The students' personal information was calculated by using Frequency and Percentage.

3.5.2 The cognitive strategy use was analyzed by using Mean, Standard Deviation, and Percentage in order to give a picture of the presence or absence of cognitive strategy use during pre reading, while reading and post reading in the English classroom.

CHAPTER FOUR

RESULTS

This chapter reports on the results of the study obtained by means of the questionnaire investigating the cognitive use of Thai students during silent reading stages. All the information in this chapter is based on the data from the questionnaire distributed to the subjects. The findings are presented in two main sections as follow:

4.1 General information of the respondents

4.2 The cognitive strategies used by the respondents

4.1 GENERAL INFORMATION OF THE RESPONDENT

There are 18 items that the students had to respond to regarding their personal information: major, level of the class ages, gender, and major.

Table 2. Personal Information of the Respondents According to Major

Major	Frequency	Percentage
Japanese	6	25.0
Chinese	3	12.5
Korean	1	4.2
Mass Communication	5	20.8
General Management	2	8.3
Social Development	1	4.2
Economics	2	8.3
Psychology	1	4.2
French	2	8.3

Thai	1	4.2
Total	**24**	**100.0**

Table 2 shows that the subjects were from 10 different majors: 25 % of the respondents were Japanese majors, 12.5 % Chinese majors, 4.2 % Korean majors, 20.8 % Mass Communication majors, 8.3 % General Management majors, 4.2 % Social Development majors, 8.3 % Economics majors, 4.2 % Psychology majors, 8.3 % French majors and 4.2 % Thai majors. Additionally, 100 % of the subjects were University students from the Faculty of Humanities and Social Sciences at Burapha University, Bangsaen, Chonburi.

Table 3. Personal Information of the Respondents

According to Level

Level	Frequency	Percentage
Fourth year	24	100.0
Total	**24**	**100.0**

Table 3 indicates that all the respondent (100 %) students were fourth year students from the Faculty of Humanities and Social Sciences at Burapha University, Bangsaen, Chonburi.

Table 4. Personal Information of the Respondents

According to Age

Age	Frequency	Percentage
20	2	8.3

21	14	58.3
22	6	25.0
23	2	8.3
Total	**24**	**100.0**

Table 3 indicates that more than half of the respondent students were in the age range of 21 (58.3 %) while 25 % of the respondent students were in range of 22, and 8.3 % were in the age range of 20 and 23.

Table 5. Personal Information of the Respondents

According to Gender

Sex	Frequency	Percentage
Male	1	4.2
Female	23	95.8
Total	**24**	**100.0**

Table 4 shows that almost all of the respondent students were female (95.8 %) and only 4.2 % were male.

4.2 THE COGNITIVE STRATEGIES USED BY THE RESPONDENTS

This second part of the questionnaire was composed of 1 part and the criteria used for this part were as follows:

Table 6. Criteria for the Rating Scale Interpretation of Part II

Mean (X)	Interpretation
1.00-1.80	Strongly agree
1.81-2.60	Agree
2.61-3.40	No opinion
3.41-4.20	Disagree
4.21-5.00	Strongly disagree

4.2.1 The cognitive strategies used by the respondents (Table 7-24)

Table 7. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
1. You read the title and imagine what the text might be about.	24	37.5	54.2	8.3	0	0	1.71	.624

According to the data shown in table 7, 54.2 % of the respondents agree that they read the title and imagined what the text might be about and 37.4 % of them strongly agree.

Table 8. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
2. You look at illustration/pictures and try to guess how they are related to the text.	24	50.0	37.5	8.3	4.2	0	1.67	.816

As indicated in Table 8, 50.0 % of the students strongly agree that they looked at illustration/pictures, and tried to guess how they are related to the text and 37.5 % of them agree.

Table 9. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
3. You skim the text quickly to get the gist.	24	29.2	33.3	25.0	12.5	0	2.21	1.021

As shown above, it was found that 33.3 % of the students agree that they skim the text quickly to get the gist whereas 29.2 % strongly agree and 25 % had no opinion.

Table 10. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
4. You read the first line of every paragraph to understand what the text is about.	24	8.3	37.5	37.5	12.5	4.2	2.67	.963

According to the data shown in Table 10, there are two points worth noting. Firstly, 37.5 % of respondents agree they read the first line of every paragraph to understand what the text is about. Secondly, 37.5 % of them have no opinion.

Table 11. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
5. You think about the previous knowledge on the topic of the text.	24	16.7	54.2	12.5	16.7	0	2.29	.955

54.2 % of the respondent agreed that they think about previous knowledge on the topic of the text.

Table 12. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
6. You read without looking up every unknown word in the dictionary.	24	8.3	16.7	16.7	41.7	16.7	3.42	1.213

According to the data shown in Table 12, it was found that 41.7 % disagree that they do not look up unknown words in the dictionary while they read.

Table 13. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
7. You guess the meaning of a word from the context.	24	29.2	66.7	4.2	0	0	1.75	.532

According to the data shown in Table 13, 66.7 % of the students agree that they guess the meaning of a word from the context.

Table 14. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
8. You guess the meaning of a word from the grammatical category.	24	12.5	50.0	20.8	16.7	0	2.42	.929

As can be seen in Table 14, 50 % of students agree that they guess the meaning of a word from the grammatical category.

Table 15. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
9. You skip some of the unknown words.	24	8.3	20.8	25.0	20.8	25.0	3.33	1.308

As indicated in Table 15, the data shows two results. The first group, 25.0 %, of respondents, have no opinion that they skip some of the unknown words, and the other group of 25.0 %, strongly disagree that they skip some of the unknown words. However there is 20.8 % agree and disagree to use this strategy.

Table 16. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
10. You read without translating word-for-word.	24	37.5	29.2	16.7	16.7	0	2.13	1.116

According to the data shown in Table 16, it was found that 37.5 % strongly agree that they read without translating word-for-word; however, 29.9 % agree.

Table 17. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
11. You have a picture of the event in the text in mind.	24	41.7	29.2	16.7	12.5	0	2.00	1.063

41.7% of students strongly agree that they have a picture of the text event in mind when they read the text and 29.2 % agree.

Table 18. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
12. You take notes on the important points of the text.	24	8.3	29.2	29.2	25.0	8.3	2.96	1.122

As can be seen in Table 18, students are divided into two groups. The first group, 29.2 %, agree that they take notes on the important points of the text, and the other group, 29.2 %, had no opinion. 25 % of them disagree whether they take notes on the important points of the text.

Table 19. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
13. You related the text to background knowledge about the topic to remember important information.	24	20.8	41.7	29.2	8.3	0	2.25	.897

It was found that 41.7 % agree that they related the text to background knowledge about the topic to remember important information. Besides, 29.2 % of them had no opinion and 20.8 % strongly agree.

Table 20. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
14. You make guesses about what will come next based on the information already given in the text.	24	8.3	33.3	33.3	20.8	4.2	2.79	1.021

As indicated in Table 20, students are divided into two groups. The first group, 33.3 %, agree that they make guesses about what will come next based on information already given in the text, and the other group, 33.3 %, had no opinion. 20.8 % disagree.

Table 21. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
15. You classify the words according to their grammatical categories.	24	8.3	41.7	29.2	16.7	4.2	2.67	1.007

As can be seen in Table 21, 41.7 % of the students agree that they classify words according to grammatical categories and 29.2 % had no opinion.

Table 22. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
16. You summarize the main idea.	24	4.2	37.5	45.8	8.3	4.2	**2.71**	**.859**

45.8 % of them have no opinion whether they summarize the main idea whereas 37.5 % agree .

Table 23. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
17. You reread the text to remedy comprehension failures.	24	70.8	29.2	0	0	0	1.29	.464

According to the information shown in Table 23, it was found that 70.8 % of them strongly agree that they do reread the text to remedy comprehension failures.

Table 24. The cognitive strategy of the students for the silent reading.

The cognitive strategy approach of the students for the silent reading	**Percentage**						$\overline{X}$	**S.D.**
	N	**1**	**2**	**3**	**4**	**5**		
18. You reread the text to remember the important points.	24	45.8	45.8	8.3	0	0	1.62	.647

As indicated in Table 24, there are two results. First, 45.8 % of them strongly agree that they reread the text to remember the important points and, secondly, 45.8 % agree that they re-read the text to remember important points.

Table 25. The cognitive strategy used by the students for pre-silent reading, while-silent reading and post-silent reading.

Strategies	N	$\overline{X}$	S.D.
Pre-reading			
2. You look at illustration/pictures and try to guess how they are related to the text.	24	**1.67**	.816
1. You read the title and imagine what the text might be about.	24	**1.71**	.624
3. You skim the text quickly to get the gist.	24	**2.21**	1.021
5. You think about the previous knowledge on the topic of the text.	24	**2.29**	.955
4. You read the first line of every paragraph to understand what the text is about.	24	**2.67**	.963

Table 25. The Cognitive Strategy Used by the Students for Pre-Silent Reading, While-Silent Reading and Post-Silent Reading.

While Reading			
7. You guess the meaning of a word from the context.	24	**1.75**	.532
11. You have a picture of the event in the text in mind.	24	**2.00**	1.063
10. You read without translating word-for-word.	24	**2.13**	1.116
13. You related the text to background knowledge about the topic to remember important information.	24	**2.25**	.897
8. You guess the meaning of a word from the grammatical category.	24	**2.42**	.929
14. You make guesses about what will come next based on the information already given in the text.	24	**2.79**	1.021
12. You take note on the important points of the text.	24	**2.96**	1.122
9. You skip some of the unknown word.	24	**3.33**	1.308
6. You read without looking up every unknown word in the dictionary.	24	**3.42**	1.213
Post-reading			
17. You reread the text to remedy comprehension failures.	24	**1.29**	.464
18. You reread the text to remember the important points.	24	**1.62**	.647
15. You classify the words according to their grammatical categories.	24	**2.67**	1.007
16. You summarize the main idea.	24	**2.71**	.859

From the results in table 25 above, which is the mean for pre-reading strategies, strategy number 2 shows 1.67 students strongly agree that they look at illustration/pictures and try to guess how they are related to the text . As we can see from the mean of strategy number 1, 1.71 show they strongly agree to read the title and imagined what the text might be about. In addition, from strategy number 3, 2.21 show they have no opinion that they skim the text quickly to get the gist. Then from strategy number 5, 2.29 indicate they agree that they think about the previous knowledge on the topic of the text. Finally, from strategy number 4, 2.67 show they have no opinion about reading the first line of every paragraph to understand what the text is about.

According to the mean results of the while-reading strategies shown in Table 25 above, it was found that strategy number 7 has a mean of 1.75, that the students strongly agree that they guess the meaning of a word from the context. As indicated in strategy number 11, the mean 2.00 shows that the respondents agree to have a picture of the event in the text in mind. Whereas from strategy number 10, the mean 2.13 shows that the students agree to read without translating word-for-word. Then from strategy number 13, mean 2.25 shows that they agree to relate the text to background knowledge about the topic to remember important information. According to the mean 2.42 from strategy number 8, the students agree to guess the meaning of a word from the grammatical category. Then from strategy number 14, mean 2.79 shows they had no opinion about making guesses about what will come next based on the information already given in the text. Strategy number 12, mean 2.96 shows that they had no opinion on note-taking on the important points of the text. According to strategy number 9, from mean 3.33, the students had no opinion that they skip some unknown words. From strategy number 6, mean 3.42, the respondents disagree that they read without looking up every unknown word in the dictionary.

From Table 25 above for post-reading, the result are as follows: From strategy number 17, mean 1.29 shows that they strongly agree to reread the text to remedy comprehension failures.

However the result of strategy number 18, mean 1.62, shows that the students had no opinion about rereading the text to remember the important points. From strategy number 15, mean 2.67 indicated they had no opinion about classifying the words according to their grammatical categories. And finally, strategy number 16, from mean 2.71, shows that they had no opinion about summarizing the main idea.

CHAPTER FIVE

CONCLUSION, DISCUSSION AND RECOMMENDATIONS

This research study aims to survey the causes of reading difficulties when cognitive reading strategies are used. The study also aims to find out which difficulty is the most common hindrance to reading for students, and to suggest what sort of cognitive reading strategies should be developed by these students in order to continue their academic studies successfully.

5.1 SUMMARY OF THE STUDY

5.1.1 Objectives of the Study

To diagnose which cognitive reading strategies students used and did not use prior to reading a text. In addition, this survey also produced information regarding which cognitive strategies were used or not used during reading a text. Also, a main objective was to study what sort of cognitive reading strategies are used or not used after reading a text. Finally, one of the goals was to look at which strategies need to be developed by students in order to continue their academic studies successfully.

5.1.2 Subjects

The subjects in this study consisted of twenty four fourth year students studying English as a minor subject at Burapha University. These students were regarded by their teacher as intermediate level students.

5.1.3 Instrument

The instrument used was a questionnaire. It was divided into two part-questionnaire. Part one was designed to ask for the personal information, part two was designed to survey cognitive use for pre, while and post silent reading

5.1.4 Procedure

SPSS/PC (Statistical Package for the Social Science on Personal Computer) Version 14 Program was used after the collection of the data in order to calculate descriptive statistics including frequency, percentage, mean (X), and standard deviation (SD) of all eighteen items in part two.

5.2 SUMMARY OF THE FINDINGS

The results presented in Chapter Four can be summed up in two majors areas. Cognitive reading strategies were evaluated under three areas: pre-reading, while-reading and post-reading

5.2.1 Cognitive Strategies that The Students Used for Silent Reading

Pre-reading

From the results showing pre-reading strategies, it was found that the students used four cognitive strategies to activate their prior knowledge and to understand the general idea before continuing with their silent reading. The strategies employed during their pre-reading phase were strategy number 1, reading the title and imagining what the text might be about. They also used strategy number 2, looking at illustration/pictures and trying to guess how they are related to the text , and strategy number 3, skimming the text quickly to get the gist. Finally, they used strategy number 5, thinking about previous knowledge on the topic of the text.

According to Neil (1999, p.2), background knowledge can influence reading comprehension skills and also activates prior knowledge. The students look at any accompanying pictures and try to relate their background knowledge with the picture to help facilitate comprehension. According to Murthagh, (Neil, 1999, p. 102) significant amounts of research show that activating schemata through pre-reading activities is highly beneficial to reading comprehension and think about previous knowledge on the topic of the text to activate their schemata (Neil, 1999, p. 153). Following Neil (1999, p. 12), he mentions that research into second language reading indicates that prior knowledge increases reading comprehension. Anderson also mentions McNeil' s research and points out that background knowledge can be activated by "setting goals, asking questions". Specifically with regard to the cognitive strategies used for pre-reading by the survey group, reading titles and sub-headings, looking at illustrations or pictures to guess about the content of the text, skimming the text quickly to get the gist, and consciously thinking about the previous knowledge on the topic of the text, all come under strategies used to activate schemata.

While-reading

According to the results of the while-reading strategies shown in chapter four, it was found that the students used five cognitive strategies to comprehend the text. They used strategy number 7 which was guessing the meaning of a word from the context, and strategy number 8, guessing the meaning of a word from the grammatical category. They also employed strategy number 10, reading without translating word-for-word, and strategy number 11, having a picture of the event in the text in mind. They also used strategy number 13, relating the text to background knowledge about the topic to remember important information.

According to the cognitive approach, bottom up model, guessing words from the context help them to acquire new vocabulary. Neil (1999, p. 12) points out that that guessing words in context is an appropriate way for reading. Cited in Neil (1999, p. 12) Clarke and Nation support the view that cognitive strategies help readers to comprehend the text. These strategies include looking at unfamiliar words and guessing the meaning according to its part of speech, and looking at various conjunctions used in the text. Clarke and Nation also state that the teacher needs to make these strategies conscious to students so that their reading becomes more effective.

Post-reading

According to the survey group results in chapter four, post-reading, section, it was found that students employed two cognitive strategies to understand the main idea. The cognitive strategies that they used were strategy number 17, rereading the text to remedy comprehension failures and strategy number 18, rereading the text to remember the important points.

Samuels (Neil, 1999, p. 132) cited in Day and Banford (1998) claims these two approaches help readers understand the main idea, so it can greatly benefit a reader’s fluency. Moreover, Day and Banford (1998) suggest that teachers actively encourage rereading activities.

5.2.2 Cognitive Strategies that Need to be Developed for Silent Reading.

Pre-reading

According to the results, the students may not understand the gist because they do not use strategy number 4, reading the first line of every paragraph to understand what the text is about. Using this strategy, the students may get the general idea of the text before reading. According to Neil, (1999, p. 49) skimming, by reading the first paragraph and then subsequently reading the first sentence in the following paragraphs, is a useful way to facilitate reading comprehension. In addition, as Neil (1999, p. 11) points out, teachers ought to introduce a variety of pre-reading activities to engage the students prior knowledge. According to the survey, the students do not use this strategy. Therefore, it might be worth teaching its use as a way of activating prior knowledge.

While-reading

The results of the study for this stage showed that the students do not use four cognitive strategies to help them to understand the text. The students may not understand the whole content of the text they read and they may spend lots of time for their silent reading. As we can see from the results in chapter four, they did not use strategy number 6, reading without looking up every unknown word in the dictionary, and strategy number 9, skipping some of the unknown words. In addition, they did not employ strategy number 12, note-taking on important points of the text. They also did not use strategy number 14, which is making guesses or predicting what will come next based on the information already given in the text.

The students need to learn how to engage these cognitive strategies mentioned above. According to Neil (1999, p. 82), being able to predict what is coming next in a text is important because it helps comprehension and makes the text easier to follow and read. Also, Neil (1999, p. 47) states that students who can summarize important information in a text will have greater understanding, so encouraging students to do this while reading would be beneficial. Anderson also states that students need to be taught to try and guess meaning from the text context to facilitate quicker comprehension of the text. According to Neil, (1999, p 26) who cites

Clarke and Nation, guessing words from context is an extremely useful strategy in reading comprehension.

Post-reading

From this study, we found that the students do not employ two cognitive strategies; strategy number 15, classifying the words according to their grammatical categories and strategy number 16, summarizing the main idea. The students did not use these two cognitive strategies, so they may have a problem to understand the text and they may not be able to distinguish between main ideas, supporting ideas and details.

As Aebersold and Field (2000, p. 142) explain, certain grammatical categories contain more information. For example, if students recognize that an unknown word is an adjective or adverb they can probably understand the text without knowing the meaning of the word. Also, learners need to learn new vocabulary by recognizing the part of a word, either prefixes or suffixes. Neil (1999, p. 27) states that by learning 14 key words which use combinations of suffixes and prefixes students can understand over 14,000 English words, so clearly this is a strategy that needs to be worked on and is related to grammar in a reading class. Besides, the students also need to learn how to summarize the text to distinguish between main ideas, supporting ideas and details. According to Neil (1999, p. 47), an effective summary would demonstrate that a reader sees the difference between the main idea and the supporting details. Finally, according to Aebersold and Field (2000, p. 125), summarizing a text is, either verbally or written, a useful post reading activity because it allows students to informally gauge their understanding of the text.

5.3 CONCLUSIONS AND IMPLICATIONS

This study aimed to determine the cognitive reading strategies used for silent pre-reading, while-reading, and post-reading. Moreover, a further aim was to suggest possible cognitive strategy skills that need to be developed because they were not used during silent reading activity.

From this study, the conclusion can be tentatively drawn that Thai students need to be taught certain useful cognitive strategies for their silent reading to get gist

from the text they read for the pre-reading step. The results of pre-reading strategy shows that they did not read the first line of every paragraph to understand what the text is about. This strategy can be taught to students to help comprehension. However, they read the title and imagined what the text might be about, and they also skimmed the text quickly to get the gist. They also thought about previous knowledge on the topic of the text to induce their schemata. All of these strategies help students activate their schemata

Moreover, according to the results of the while-reading stage it was found that they guess the meaning of a word from the context. Besides, they have a picture of the event in the text in mind to help them comprehend the text. They also imagine the text event in their minds and read without translating word-for-word. They use the cognitive strategies to assimilate the text to their background knowledge. They also guess the meaning a word from the grammatical category but they won't make guesses about what will come next based on the information already given in the text. Besides, the students do not take notes on the important points of the text to get the main idea. Also, they read by looking up every unknown word in the dictionary. For while-reading, their teachers need to teach them how to make guesses about what will come next based on the information already given in the text and help them to take notes on the important points of the text to facilitate their reading and understanding.

Finally, for post-reading, the students employed two cognitive strategies. They reread the text to remedy comprehension failures and to remember the important points in the text and find the main idea. However, they do not classify the words according to their grammatical categories, and they do not summarize the main idea from the text they read. They need to learn those two strategies to help them find the main idea and supporting details. Each of these elements of the approach provides the students with useful reading comprehension skills for their silent reading.

5.4 RECOMMENDATIONS FOR FURTHER RESEARCH

From this study, we found that while the students did use some cognitive strategies successfully, there were some that they did not use and which could be taught to help understanding in the pre-reading, while-reading and post-reading stages.

It is highly recommended that future research about cognitive strategy use be conducted because the results might vary over time.

Furthermore, research in other universities or additional classes can also be done in order to see if the results concur or are different.

Finally, it is highly recommended that more classroom research be conducted with students from different levels and backgrounds to help ESL/EFL teachers increase reading proficiency of the students with different levels and background.

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APPENDIX A

Research Instrument-Questionnaire

Questionnaire : Reading in English

Personal Information	**For the researcher**
Age……	
Sex ☐ **Male** ☐ **Female**	
Major…….	
Year…….....	

The following statements are about silent reading in English. Please indicate your level of agreement or disagreement with each statement by circling the appropriate number: 1 indicates the strongest agreement, 5 indicates strong disagreement.

Strategies	**Strongly agree** **1**	**Agree** **2**	**No opinion** **3**	**Disagree** **4**	**Strongly disagree** **5**
When reading silently in English…					
1. You read the title and imagine what the text might be about.					
2. You look at illustration/pictures and try to guess how they are related to the text.					
3. You skim the text quickly to get the gist.					
4. You read the first line of every paragraph to understand what the text is about.					

5. You think about the previous knowledge on the topic of the text.					
6. You read without looking up every unknown word in the dictionary.					
7. You guess the meaning of a word from the context.					
8. You guess the meaning if a word from the grammatical category.					
9. You skip some of the unknown word.					
10. You read without translating word-for-word.					
11. You have a picture of the event in the text in mind.					
12. You take note on the important points of the text.					
13. You related the text to background knowledge about the topic to remember important information.					
14. You make guesses about what will come next based on the information already given in the text.					
15. You classify the words according to their grammatical categories.					
16 You summarize the main idea.					
17. You reread the text to remedy comprehension failures.					
18. You reread the text to remember the important points.					

APPENDIX B

Questionnaire (Translated Version)

แบบสอบถามเรื่องทักษะในการอ่านเนื้อเรื่องภาษาอังกฤษ

ข้อมูลส่วนตัว	สำหรับผู้วิจัยกรอก
อายุ……	
เพศ ☐ ชาย ☐ หญิง	
วิชาเอก…….	
ชั้นปี…….....	

แบบสอบถามชุดนี้มีวัตถุประสงค์เพื่อศึกษาทักษะการอ่านเนื้อเรื่องภาษาอังกฤษในใจ โปรดทำเครื่องหมาย ✓ ลงในช่องว่างที่ตรงกับความคิดเห็นของท่านมากที่สุด โดยเรียงลำดับจากเห็นด้วยมากที่สุด (หมายเลข 1) และเห็นด้วยน้อยที่สุด (หมายเลข 5)

วิธีการ	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
ขณะที่อ่านเนื้อเรื่องภาษาอังกฤษในใจ…	1	2	3	4	5
1. ท่านอ่านหัวเรื่องและเดาว่าเนื้อเรื่องเกี่ยวกับอะไร					
2. ท่านดูภาพประกอบและพยามยามเดาว่าเกี่ยวข้องกับเนื้อเรื่องอย่างไร					
3. ท่านอ่านเนื้อเรื่องอย่างรวดเร็วเพื่อทำความเข้าใจเนื้อเรื่องโดยรวมว่าเกี่ยวกับอะไร					
4. ท่านอ่านบรรทัดแรกของทุกย่อหน้าเพื่อต้องการทำความเข้าใจว่าเนื้อเรื่องที่อ่านเกี่ยวกับอะไร					

5. ท่านนึกถึงความรู้ที่ท่านมีมาก่อนหน้านี้ ซึ่งเกี่ยวข้องกับหัวเรื่องของสิ่งที่อ่าน					
6. ท่านอ่านเนื้อเรื่องโดยไม่ค้นหาความหมายของคำศัพท์ที่ท่านไม่ทราบ					
7. ท่านเดาความหมายของคำศัพท์ที่ไม่ทราบจากบริบทแวดล้อมของคำนั้นๆ					
8. ท่านเดาความหมายของคำศัพท์โดยสังเกตจากชนิดของคำศัพท์ตัวนั้นๆในประโยค					
9. ท่านเพิกเฉยต่อคำศัพท์บางคำที่ไม่รู้ความหมาย					
10. ท่านอ่านเนื้อเรื่องโดยไม่แปลความหมายของเนื้อเรื่องแบบคำต่อคำ					
11. ท่านจำลองภาพเหตุการณ์ของเนื้อเรื่องที่อ่านอยู่ในใจ					
12. ท่านจดสาระย่อที่สำคัญของเนื้อเรื่อง					
13. ท่านเชื่อมโยงเนื่อเรื่องที่อ่านให้ เข้ากับสิ่งที่ท่านรู้มาแล้วก่อนหน้านั้น เพื่อช่วยในการจำข้อมูลที่สำคัญๆ					
14. ท่านเดาได้ว่าจะเกิดอะไรขึ้นในย่อหน้าถัดไป โดยอาศัยข้อมูลจากเนื้อเรื่องส่วนที่ได้อ่านไปแล้ว					
15. ท่านจำแนกคำศัพท์โดยสังเกตจากชนิดของคำศัพท์นั้นๆในประโยค					
16. ท่านสรุปใจความสำคัญของเนื้อเรื่องที่อ่านได้อย่างถูกต้องและชัดเจน					
17. ท่านย้อนกลับมาอ่านเนื้อเรื่องซ้ำอีกครั้งเมื่อท่านไม่เข้าใจ					
18. ท่านย้อนกลับมาอ่านเนื้อเรื่องซ้ำอีกครั้งเพื่อจดจำส่วนสำคัญๆของเรื่องที่อ่าน					