

A Study on the Use of English Reading Strategies of the Second-Year

Students at Bangkok University



Nawin Pongpattarakul

B.A. (International Affairs) Thammasat University

M.A. (English for Careers) Thammasat University

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ABSTRACT

The purposes of this research were to 1) investigate the use of English reading strategies of second-year students at Bangkok University 2) compare the use of English reading strategies between the low-achievers and high achievers 3) compare the use of English reading strategies of second-year students classified by their gender, faculty, English learning experience, and reading behavior outside class. The instruments used for collecting data were a questionnaire, a reading comprehension test, and an in-depth interview. Proportional stratified random sampling was employed to formulate a sample of 370 students from nine faculties of Bangkok University. The data were statistically analyzed in terms of mean and standard deviation. A t- test analysis was used to find the difference between two groups (male and female students, low and high achievers) on the use of reading strategies. In

addition, One-way Analysis of Variance (ANOVA) was used to compare the use of reading strategies of students with different faculty, English learning experience, and reading behavior outside class. For the in-depth interview, six students with highest scores and six with the lowest scores were randomized through a simple random sampling technique to give their opinions on three questions provided, and the data were collected to assure the results of the study.

The results of this study were as follows:

1. The overall use of reading strategies of second-year students at Bangkok University was at a medium level ($\bar{X} = 3.45$). Three strategies were used at an extensive level : scanning ($\bar{X} = 3.84$), making inference ($\bar{X} = 3.55$), and schema ($\bar{X} = 3.54$) and five strategies were used at a medium level : skimming ($\bar{X} = 3.49$), identifying main ideas and supporting details ($\bar{X} = 3.42$), using context clues ($\bar{X} = 3.41$), using grammatical clues ($\bar{X} = 3.21$), and using word parts ($\bar{X} = 3.12$).

2. There was a statistically significant difference between two groups of achievers (low and high) in the overall strategy usage at the level of .05. That is, high achievers had an extensive level of strategy usage ($\bar{X}=3.73$) while low achievers had a medium level of strategy usage ($\bar{X}=3.32$).

3. There was no statistically significant difference between male and female students in the overall strategy usage and in each strategy at the level of .05.

4. Significant differences among nine faculties were found at the level of .05 in the overall strategy usage and in each strategy. That is, faculties which had an extensive level of strategy usage included Humanities ($\bar{X}=4.39$), Fine and Applied Arts ($\bar{X}=3.54$), and Engineering ($\bar{X}=3.50$). Faculties which had a medium level of strategy usage included Law ($\bar{X}=3.44$), Business Administration ($\bar{X}=3.44$), Communication Arts ($\bar{X}=3.43$), Accounting ($\bar{X}=3.29$), Economics ($\bar{X}=3.24$), and Science and Technology ($\bar{X}=3.22$).

5. The students who had different English learning experience had different usage of reading strategies at the significance level of .05. That is, the students with English learning experience of less than 8 years and 8-12 years had a medium level of strategy usage ($\bar{X}=3.13$ and $\bar{X}=3.30$) while the students with English learning experience of more than 12 years had an extensive level of strategy usage ($\bar{X}=3.52$).

6. The students who had different reading behavior outside class employed different overall reading strategies at the significance level of .05. That is, the students who often read outside class had an extensive level of strategy usage

($\bar{X}=3.86$) while the students who sometimes and never read outside class had a medium level of strategy usage ($\bar{X}=3.42$ and $\bar{X}=3.27$).



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CHAPTER I

INTRODUCTION

Rationale and Significance of the Problem

The path to success in universities is through reading (Jacobus, 2001) because the students at the university level use reading as a tool for learning and acquiring knowledge. They have to read a lot of English textbooks assigned by teachers because besides their instructors, textbooks are the most valuable learning tool (Pirozzi, 1995) and extend general knowledge of the world. In addition, they have to encounter a plethora genre that they are required to read, understand, and apply in meaningful way. Comprehending these texts is crucial for academic success. Therefore, they need good reading skills in order to understand what the author intends to convey. However, there is little or attention paid to the reading focuses or the strategy training that is so important to the learning tasks (Arieta, 2005)

Ward (1980, cited in Saengpakdeejit, 2002) states that reading is a difficult language skill to practice because it involves a large number of different elements : mechanical eye movement, grammar, vocabulary, phonetics, spelling, and intellectual comprehension. Nonetheless, in the mother language, the students can read naturally because they have automatic control over the structures of the language and the contents, for the most part, with vocabulary problem only. In a foreign language,

knowing the meaning of words alone does not help the reader to understand what he reads (Sally, 1989). Decoding problems and deriving meaning from print are considered as the factors causing problems in foreign language reading. (Correll, 1995)

Dreyer and Nel (2003) also point out in their research that the low levels of reading ability among undergraduate students in South Africa has an adverse effect on their chances of academic success.

Apparently, there are a lot of researches which show that Thai students' reading abilities in English do not meet the required standards. Youngjermjantra (1994) studies students' reading abilities at the upper secondary level. The findings reveals that not only students' reading abilities but also their reading comprehension skills such as identifying main ideas and supporting details, and predicting outcomes, were below the eighty percent criterion. Sutta (1994) also finds that even the reading abilities of first-year graduate students in the Master of Arts in teaching programs at Kasetsart University did not reach the eighty percent criterion.

These problems simply derive from the fact that in Thailand, teaching reading in most EFL classes in second school level is based on the product-oriented approach. (Rerkaroonthong, 2000 cited in Wichadee, 2005) The teacher concentrates on reading

tasks with a series of passages and questions provided to the students. The students concentrate on answering the questions by copying the answers from the reading passages without real understanding of the whole text. As a result, they do not develop skills for effective reading to understand the stories they read.

Likewise, according to Ampayap (1990 cited in Thearmtanachok, 1999) both elementary and secondary teachers do not teach reading strategies. Teachers assume that students know how to read English texts the same way as they do in Thai. Being able to choose appropriate reading strategies is very important for readers. However, it is not enough for the readers simply to know what reading strategies are; the readers must also know how to use reading strategies successfully and be able to apply them interchangeably. Thus, most Thai students do not understand reading passages thoroughly because they do not apply reading strategies to help them better understand.

Fowle (2001) says that many English teachers in Thailand both Thai and non-Thai, complain that their students do not like reading because Thailand has an oral rather than written culture. Thailand does not have a strong reading culture. Thailand's culture and education system do not encourage the development of a

strong reading habit amongst learners. The teaching of reading for pleasure is often neglected both by parents and teachers, thus the students do not enjoy when reading.

Another cause which is the impediment of reading comprehension is confirmed by Hiranburana and Opanon-amata (2003) that the students tend to miss general topic due to the overattention to detail. That is to say, the students read one word or a few letters at a time, resulting in having difficulty grasping the meaning as the mind deduces from the interrelations of larger units.

From the above-mentioned situations, teaching reading strategies to the students should be implemented to enhance their reading comprehension. Poole (2005) claimed that the importance of reading strategies is especially critical for English language learners, since high level of English language literacy – which are essential for even minimal academic achievement at any level (elementary, secondary, university, and tertiary) – have been found to correlate with frequent and complex strategy use. Zhicheng (1992) also wrapped up the value of reading strategies in his research showing that the introduction of different strategies, particularly memory, cognitive, and compensation strategies, did help students make gains in reading comprehension. In the same manner, Pratyaniwet (2001) found out in her research that reading strategies are beneficial to the students since the students

will employ multiple strategies to discover the meaning of unknown words in both familiar and unfamiliar content : using grammar knowledge, using context within a sentence, using context between sentences, using context within a paragraph, using context between paragraphs, forming relationships between sentences, using background knowledge, applying knowledge of word structure, and using sound pattern.

Another research which proves advantages of teaching reading strategies is “Teaching Reading Strategies : It Takes Time” conducted by Farrel (2001). He concludes that studies in second language reading have shown that reading strategies not only can be taught to students, but that when learners use strategies they have learnt these help improve their performance on tests of comprehension and recall. His paper outlines a case study of how one teacher attempted to incorporate strategy training in his secondary school English reading classes. He attempted strategy training in questioning, clarifying, and predicting strategies and vocabulary recognition techniques for less proficient English students with mixed success. The teacher was successful in getting his students to achieve some metacognitive awareness of their reading processes. As a result it seems that strategy training for English Second/ Foreign Language (ESL/EFL) readers is worthwhile.

At Bangkok University, four-year program undergraduate students in nine faculties are required to take four general English courses provided by the Language Institute. These courses are EN111 (Fundamental English I), EN112 (Fundamental English II), EN211 (Intermediate English), and EN212 (Advanced English). However, the number of English courses students have to take is not equal. This depends on the faculty to which they belong. For example, students from Faculty of Humanities, Engineering, Science and Technology, Law, Fine and Applied Arts, Communication Art, have to take three basic English courses while students from Faculty of Economics, Accounting, and Business Administration have to take four basic English courses. However, two basic English courses for the first-year students - EN111 (Fundamental English I) and EN112 (Fundamental English II)- provide the students with 8 basic reading strategies namely scanning, skimming, schema, identifying main idea and supporting detail, using grammatical clues, using word parts, using context clues, and making inference. For this reason, the researcher has decided to choose the second-year students who are taking Intermediate English (EN211) to be the subjects in this study because they are assumed to have some knowledge of using 8 basic reading strategies after they pass EN 111 and 112.

Regarding to the necessity of reading for the students at Bangkok University, in addition to four English basic courses and English material assigned by the lecturer in each faculty, the students have to study English for Specific Purposes (ESP) for their future career; for example, English for Arts and Design for Fine and Applied Arts students, English Reading and Writing for Communication Arts for Communication Arts students, English Legal Language for Law students, and English for Business Purposes for Business Administration and Economics students. The students studying these courses have to use reading skills extensively to read comprehensive materials in order to gain specific knowledge in their field and logical thinking which will be beneficial to their future career. However, the score report from Language Institute of Bangkok University (BULI) during 2003-2005 showed that reading scores of the students were poor reflecting that reading proficiency of the students were also poor which could obstruct the students' reading comprehension and their academic success. Therefore, teaching reading strategies especially 8 reading strategies included in EN111 (Fundamental English I) and EN112 (Fundamental English II) should be continuously provided for the students in order to enhance their reading comprehension. (Aunaree, 2006)

Moreover, from the interview with an Assistant Professor Dr. Chutima Thammaraksa, a Director of Language Institute of Bangkok University, she formulated the policy for teaching reading that Bangkok University student must be able to comprehend what they read clearly. Then they must be able to summarize and write to express their ideas and to argue logically. That is, the students have to integrate reading, writing, and thinking skill. However, she well realized that Bangkok University's students had poor reading skills. Hence, in achieving her policy, she said that it was necessary for BULI lecturers to train the students to use eight basic reading strategies, namely scanning, skimming, schema, identifying main idea and supporting detail, using grammatical clues, using word parts, using context clues, and making inference, because these reading strategies could be a springboard for the students' better reading comprehension which is in consistent with Duffy (1993, cited in Richards and Renandya, 2002), Wijanpreecha (2005), Farrel (2001), Pratyaniwet (2001), Lau and Chan (2003), and David and Thompson (2005).

For these reasons, the researcher would like investigate the use of eight basic reading strategies of the students in terms of what strategies and how much of them BU students are employing. In addition, the researcher would like to investigate what reading strategies are usually employed by students with low and high reading

proficiency of English. Also, it would be useful to know more about other factors which affect the use of reading strategies such as gender, faculty, year of studying English, and reading behaviour outside class. The findings of this research would help the researcher improve the process and material for teaching and learning reading in order to develop students' reading comprehension when they read the text or other reading materials in their university courses and their future career.

Purposes of the Study

This study aims to:

1. investigate the use of English reading strategies of second-year students at Bangkok University.
2. compare the use of English reading strategies between the low-achievers and high achievers
3. compare the use of English reading strategies of second-year students classified by their background information, i.e. gender, faculty, English learning experience, and reading behavior outside class.

Research Hypothesis

1. Different groups of students (low and high achievers) have different reading strategy usage.

2. Male and female students have different reading strategy usage.
3. Students coming from different faculties have different reading strategy usage.
4. Students with different English learning experience have different reading strategy usage.
5. Students who have different reading behavior outside class have different reading strategy usage.

Scope of the Research

This study was based on the opinions of 370 second-year students who answered through the questionnaire and their reading test scores. The researcher chose to conduct a study with four-year program students only; therefore, the ones from continuing education program are not included. These samples are got from Stratified Random Sampling technique.

Significance of the Study

The findings of this research will help instructors to know the level of reading abilities and reading strategies usage of the second-year students. Moreover, they will learn what reading strategies are employed by students with low and high reading proficiency. Knowing this can help the instructors improve the process and material for teaching and learning reading in order to develop students' reading

comprehension when they read the text or other reading materials in their university courses and their future career.

Definition of Terms

1. Reading abilities mean the ability to understand a 40 multiple-choice reading test constructed by the researcher and covering eight basic reading strategies.

2. Reading strategies refer to the mental process students use to enhance their reading comprehension skills measured by a questionnaire. In this research, the terms defined are based on Adams & Patterson (2001).

2.1 Scanning refers to the skill by which students read very quickly to find needed specific information.

2.2 Skimming refers to the skill by which students move the eyes rapidly through the material to find the gist or general idea.

2.3 Schema refers to the skill by which students connect new information to their previous knowledge and then interpret it meaningfully.

2.4 Identifying main ideas and supporting details refers to the skill by which students use either key words which lead to topic sentences or the topic sentences of the paragraphs and/ or texts to obtain the main idea and the skill by which students can

identify the crucial details (fact, reason, comparison, example or statistics) which develop the main idea.

2.5 Using grammatical clues refers to the skill by which students use nine types of grammatical clues to unlock word and sentence meaning : part of speech, sentence pattern, punctuation, modifier, subject and verb agreement, tense, phrase, clause, and type of sentence.

2.6 Using word parts refers to the skill by which students use word parts (prefix, suffix, and root) to determine the meaning of words.

2.7 Using context clues refers to the skill by which students use features within the sentence or paragraph that can help them to define unfamiliar words : pronoun reference, restatement, transitional markers, relative pronoun, synonym, antonym.

2.8 Making inferences refers to the skill by which students use context clues and their background knowledge to gather information and draw the final or proper meaning which is not clearly stated by the writer.

3. Reading comprehension test is a set of 40 questions constructed by the researcher and examined its content validity by four specialists. It focuses on the eight reading strategies: scanning, skimming, schema, identifying main ideas and supporting

details, using grammatical clues, using word parts, using context clues, and making inference.

4. *EN 211* (Intermediate English) is a required course for Bangkok University second-year students. This course aims to enhance the students four skills (reading, writing, speaking and listening).

4. *Second-year students* are the students who enrolled in EN 211 (Intermediate English) for four-year program in the semester one of the academic year of 2006 at Bangkok University.

Limitation of the Study

Since the samples are from second-year students enrolling EN 211 course (four- year program), it is rather difficult for the researcher to generalize the results to other groups of students.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter describes the literature relating to the concept of reading comprehension as well as theory of reading strategies. The presentation which is organized into three parts discusses reading comprehension, reading strategies (definitions and types), and related research dealing with reading strategies.

1. Reading Comprehension

Wallace (1996) states that reading is reacting to a written text as a piece of communication; in other words, we assume some communicative intent on the writer's part which the reader has some purposes in attempting to understand.

Perfetti (1998, cited in Urquhart & Weir, 1998) defines reading as the skill of transforming printed words into spoken words and the process of getting linguistic information via print.

In addition, The Collin Cobuild English Dictionary (2003) gives the definition of reading as the way in which you understand or interpret a word, text, or situation.

Another definition is of Malarcher (2004), he states that reading is a meaning seeking process. Effective readers are active, not passive. They take some time before they begin to read a text to activate prior knowledge, preview the passage (vocabulary

and structure of the text), make predictions, establish a purpose, and generate questions

The last definition is described by Michigan Reading Association (2005). They defined reading as the process of constructing meaning through the dynamic interaction among the reader's existing knowledge, the information suggested by the text and the context of the reading situation.

Reading comprehension is the process of understanding and constructing meaning from a piece of text. In this sense, the writer encodes thought as language and the reader decodes language. Furthermore, reading expert Katherine Maria (1990, cited in Arieta, 2005) defines reading comprehension as holistic process of constructing meaning from written text through the interaction of (1) the knowledge the reader brings to the text, i.e. word recognition ability, world knowledge, and knowledge of linguistic conventions (2) the reader's interpretation of the language that the writer used in construction the text (3) the situation in which the text is read.

Adams & Patterson (2001) suggest that comprehension is the act of understanding or the capacity to understand. They divide comprehension into three levels:

1. Literal comprehension

It is the most basic and the foundation of understanding. It includes such things as vocabulary knowledge, understanding main ideas and supporting details, study-reading strategies, graphic aids scanning, and rate flexibility.

2. Critical comprehension

This level requires separating fact from opinion, recognizing an author's intent, attitude, tone, and bias, being able to draw inferences, and drawing conclusion.

3. Affective comprehension

This comprehension is composed of an understanding of figurative language, use of the imagination and feeling, and an awareness of the aesthetics of imaginative and expository writings.

Carnine (1997) points out that comprehension is regarded as the principal point of reading. The most straightforward definition of comprehension is understanding what we read which is the ultimate goal of any kind of reading.

However, there are a number of reasons why the students have some problems to comprehend what they are reading. Reading comprehension may be affected by the difficulty of the text and unfamiliarity of the students with the vocabulary and subject matter. One cause which is the impediment of reading comprehension is confirmed by Hiranburana and Opanon-amata (2003). He stated that the students tend to miss general topic due to the overattention to detail. That is to say, the students read one word or a few letters at a time, resulting in having difficulty grasping the meaning as the mind deduces from the interrelations of larger units. Another cause is that teaching reading in most EFL classes in secondary school level in Thailand is based on the product-oriented approach. (Rerkaroonthong, 2000 cited in Wichadee, 2005) The teacher concentrates on reading tasks with a series of passages and questions provided to the students. The students concentrate on answering the questions by copying the answers from the reading passages without real understanding of the whole text. As a result, they do not develop skills for effective reading to understand the stories they read.

To cope with the problems of reading comprehension, the researchers and academicians have proposed four approaches to teach the students: 1) models of reading 2) reading tasks 3) steps in reading 4) reading strategies.

1. Models of reading

Models of reading will help the readers to understand the process of reading and how to get the meaning from the written materials. Generally, there are three basic models of reading comprehension that have been most recognized. These are bottom-up, top-down, and interactive models (Cohen, 1990, Urquhart & Weir, 1998 cited in Wichadee, 2005).

In the bottom-up model, the readers decode and reconstruct the writer's meaning through recognizing the printed letters and words, then, build up meaning from the smallest textual units at the "bottom" (letters and words) to larger and larger units (phrase, clauses, intersentential linkages) at the top. In this case, EFL readers may use bottom-up reading activities such as using a dictionary and analyzing word or sentence structure to get meaning.

Another model of reading is called top-down which assumes that the readers get meaning from the text by using their prior knowledge or experience. That is, they need to use their prior knowledge or experience. That is, they need to use their conceptual predictions or "educated guess" about the meaning. Then they check what they predict. The reader may misinterpret the text if they have little knowledge of the

topic. On the contrary, if they know much about the topic beforehand, they tend to use the graphic symbols to help them get meaning or comprehend the text easily.

Sometimes, proficient readers learn to combine both models while they read. This model is called “interactive” which refers to the interaction of the readers’ several kinds of knowledge and the interaction of the readers and the text. The reader normally processes by making predictions about the meaning of the topics then confirming or rejecting the predictions and decoding letters and words.

2. Reading tasks

Reading tasks which will help better reading comprehension include global reading and reading for detail. For global reading, the students pay attention to the meaning, the content, but not the words. They understand the gist of what they are reading. However, in reading for detail, students pay attention not only to the individual words, but also how words are linked to form sentences, paragraphs, and whole texts (Wichadee, 2005).

3. Steps in reading

There are three steps in reading: before reading, during reading, and after reading. In the before reading step, the reader will set a purpose for reading, then activate prior knowledge by using pre-reading tasks, title, the pictures to help them

make connections between new knowledge and what is known through self-questioning about the story, the vocabulary, and the form in which the story is presented. In addition, the reader will identify words that guide them to determine the organizational structure and content focus of the text. During reading, the reader will use several strategies in order (if possible) such as clarifying the meaning of the text, reading quickly to get the main idea and specific information, using surrounding unknown words to determine the meaning, giving logical guess based on the facts or evidence presented, predicting and rereading the text. After that, the reader will summarize the text in written forms and evaluate the ideas obtained from the text. Finally, the reader applies the ideas in the text to unique situations (Abita, 2005).

4. Reading strategies

Reading strategies are the tool to help the readers have better reading comprehension. There are many types of reading strategies such as skimming, scanning, inferencing, and identifying main ideas from supporting details. Reading strategies can be used in three steps in reading: before reading, during reading, and after reading as proposed by Abita, 2005. What's more, there are many researches stating that reading strategies can enhance reading comprehension [Duffy (1993, cited in Richards and Renandya, 2002), Suriyamanee (1993), Kamwachirapitak

(2003), Lau and Chan (2003), Dreyer and Nel (2003) and David and Thomson (2005)]. See details of reading strategies in part two of this chapter (Reading Strategies: Definitions and Types).

In conclusion, according to the four approaches to overcome reading comprehension, no matter what they are called, we can see that they are involved with the use of reading strategies more or less. Therefore, in order to solve the problem of reading comprehension of Bangkok University's students and in response to the policy of Bangkok University Language Institute (BULI) in improving reading comprehension of the students, the researcher carried out this research which aims to investigate the use of reading strategies of the students, and findings will be used to improve reading instruction and construct instructional reading material which will lead to the students' enhanced reading comprehension.

2. Reading Strategies: Definitions and Types

Upon the literature review, the researcher found that there were many definitions and types of reading strategies. The definitions also implied the advantage of reading strategies. Each type of reading strategies could be used in different way and for different reading tasks to help the students comprehend them effectively. Definitions and types of reading strategies can be presented accordingly.

Cohen (1990) stated that reading strategies were mental processes that readers consciously chose to use in accomplishing reading tasks. Techniques and tactics were all considered as strategies even if they might or might not facilitate successful comprehension of texts. He also classified reading strategies into major eleven types and pointed out usefulness of each strategy.

1. Clarification of purpose

Readers need to know why they have to read the text, then they can decide how they are going to read it. For instance, if the readers want to find out the definition of difficult words in the dictionary, they may need scanning rather than responsive reading.

2. Organization of text

Readers look how the text is organized by skimming the text, taking note of any subtitles, figures, tables, pictures, and jumping to see a summary, discussion, or conclusion.

3. Reading for meaning

This type of reading deals with schemata. Schemata refers to background information which readers use to interpret the new information. The three basic types are content, language, and textual schemata. Content schemata involves systems of

factual knowledge, values, and cultural conventions. Language schemata involves grammar, spelling and punctuation, vocabulary, and cohesive structure. Textual schemata involves the rhetorical structure of different modes of text, for instance, recipes, letters fairly tales, research papers, science textbooks. In order to read the text, readers need to use their schemata according to the different types of reading text.

4. Focusing on major content

Readers pay attention to major content as distinguished from trivia. If there is difficult vocabulary, finding meaning in a dictionary is one way to help readers understand the text.

5. Parsimonious use of a dictionary

The theory suggests that readers should use monolingual dictionary sparingly. Overuse of dictionary and using a bilingual dictionary are the two big mistakes which usually occur with non-native readers. Readers should also take notes on the meaning of unknown or unfamiliar words. Readers often keep looking up the same words over and over because they forget what the entry was immediately after finding it.

6. Judicious use of context

If the text has relatively few difficult words, readers should interpret the meaning of unknown or unfamiliar word from the context. If the text is too difficult for readers and the context is too limited, using the dictionary wisely can help the reader to extract the meaning.

7. Reading in broad phrase

Successful readers tend to take in group of words at a time, not word by word. This strategy helps readers to speed up their reading speed.

8. Ongoing summaries

Readers do few notes while they are reading. It helps readers to recognize what they have read. There are two kinds of ongoing summaries. The first one is writer-based whereas the second one is reader-based. The former written, writer-based, is for the person who do the summary and not for someone else. The later written, reader-based, is not only for writers, but also for readers.

9. Making predictions

When readers read too slow and plodding, they are usually tired and bored. Keep actively predicting what the writer is likely to be writing about in the next portion of text can help readers stay alert.

10. Looking for markers of cohesion

This reading strategy is an aid in a reading process. Such markers indicate who or what is being referred to and the function of the reference.

11. Metacognitive strategies

Metacognitive strategies include planning strategies to use, monitoring the use of strategies, and assessing the effectiveness of the use of strategies. When the reading strategy does not work, readers then choose new reading strategies which can fit with that piece of written text.

In simple terms, reading strategies which Cohen proposed were scanning, skimming, taking note, schema, identifying main ideas from supporting details, using monolingual dictionary occasionally, using context clues, summary, prediction, using of markers, and metacognition.

Duffy (1993, cited in Richards and Renandya, 2002) defined reading strategies as plans for solving problems encountered in constructing meaning. In his view, more proficient readers used more reading strategies than less proficient readers, and reading could be taught to the students, and when taught, strategies helped improve the students' performance on test of comprehension and recall. Reading strategies ranged from bottom-up vocabulary strategies, such as looking up

an unknown word in the dictionary, to more comprehension actions, such as connecting what is being read to the reader's background knowledge.

Zhicheng (1993) viewed reading strategies as the effective ways to help a great deal to non-native readers to overcome language deficiency and obtain better reading achievement both for regular school assignments and on language proficiency test. He divided reading strategies into four types and points out the usefulness of each strategy as follows:

1. Cognitive strategies which include the skills of predicting based on prior knowledge, using statements to check their comprehension, and analyzing text organization by looking for specific patterns

2. Compensation strategies including using context clues which are divided into two major divisions: (1) syntactic clue which is related to grammatical structure, and (2) semantic clues which involve intra-and-inter sentence meaning: restatement, use of example and summary clues. These strategies could be used to unlock unfamiliar vocabulary and unknown concepts.

3. Memory strategies which comprise the techniques of creating mental/visual images, grouping, story mapping, and organizing information in meaningful patterns. These strategies could help the reader to have clear picture of the sentences or ideas.

4. Test-taking strategies which are widely used in taking multiple-choice items in standardized tests. This strategy is mainly concerned with question type and corresponding question-answering strategies.

Brown (1994, cited in Thearntanachock, 1999) stated that the process contributing to efficient reading, he suggested the following reading processes as a part of reading strategies.

First, for intermediate to advanced levels, readers should read silently because it helps them to have relatively rapid comprehension. They are three silent reading techniques: readers do not need to pronounce each word, readers should try to visually perceive more than one word at a time, preferably phrases, and readers should skip some unknown words or try to infer their meaning from context.

Second, skimming and scanning are needed in reading. Skimming consists of quickly running one's eyes across a whole text to get the gist. It gives readers the advantage of being able to predict the purpose of the passage, the main topic or message, and possibly some of the developing or supporting ideas. In contrast, scanning is a process of quickly searching for some particular piece or pieces of information in a text. The main purpose is to extract certain specific information without reading through the whole text.

Third, semantic mapping of clustering also known as mind map or concept map helps readers to group their ideas into meaningful clusters. It enhances vocabulary development by helping the students link new information with previous experience. It is a good way to memorize vocabulary. It helps the reader to organize new words and ideas. When you make such a map, you make it easier for your brain to store and retrieve new information.

Fourth, guessing is one of the reading strategies. Readers can use guessing to find meaning of words, figure out grammatical and discourse relationships, infer implied meanings, know culture references, and get content messages. However, readers need to guess wisely by using their schemata and metacognitive strategies or clues which are available to them.

Fifth, vocabulary analysis is another way that readers can use guessing abilities to help them to get the meaning from the texts. Readers may look for (1) prefix that may give clues (2) suffix that may indicate what part of speech it is (3) roots that are familiar (4) grammatical contexts that may signal information (5) semantic context for clues.

In short, reading strategies which Brown proposed were reading silently, using context clues, inferencing, skimming, scanning, mind map, guessing wisely, using word parts, and using grammatical clues.

Wallace (1996) opined that reading strategies were strategy-based approach which indicated how reader conceived a task, what textual clues they attended to, how they made sense of what they read, and what they did when they didn't understand.

In his idea, reading strategies ranged from skipping inessential words, guessing from context, reading in broad phrases, and continuing reading the text where they were unsuccessful in decoding a word or phrase.

Jacobus (2001) mentioned that reading referred to the process of perceiving the reading task and making sense of what the reader read. He also classified the idea about reading strategies to improve reading abilities into two types:

1. Strategies for general reading which includes the following:

- 1.1 find the main idea of the text

- 1.2 study the subheadings

- 1.3 study the paragraph relating to (1) opening sentence of a paragraph (2) the opening paragraph (3) the functions of paragraph namely, definition, cause and effect,

real or hypothetical result analysis, establishing opinions, establishing circumstances, and explanation.

2. Strategies for higher-level reading or cognitive skills which include 1) summarizing 2) questioning 3) clarifying 4) predicting 5) the SQ3R reading technique whose meaning is explained below.

S : Survey the text in advance.

Q : Question the text and look for answers.

R : Read the text part by part.

R : Recite to yourself what you have read.

R : Review what you have read along with the answers to your questions.

Adams and Patterson (2001) described that reading strategies were the mental process people used to enhance their reading comprehension. They concluded and explained the types of reading strategies accordingly:

1. Scanning refers to the skill by which you read very quickly to find needed specific information.
2. Skimming refers to the skill by which students move the eyes rapidly through the material to find the gist or general idea.
3. Schema refers to the skill by which you connect new information to their

previous knowledge and then interpret it meaningfully.

4. Identifying main ideas and supporting details refers to the skill by which you use either key words which lead to topic sentences or the topic sentences of the paragraphs and/ or texts to obtain the main idea and the skill by which students can identify the crucial details (fact, reason, comparison, example or statistics) which develop the main idea.
5. Using grammatical clues refers to the skill by which you use nine types of grammatical clues to unlock word and sentence meaning : part of speech, sentence pattern, punctuation, modifier, subject and verb agreement, tense, phrase, clause, and type of sentence.
6. Using word parts refers to the skill by which you use word parts (prefix, suffix, and root) to determine the meaning of words.
7. Using context clues refers to the skill by which you use features within the sentence or paragraph that can help them to define unfamiliar words : pronoun reference, restatement, transitional markers, relative pronoun, synonym, antonym.
8. Making inferences refers to the skill by which you use context clues and their background knowledge to gather information and draw the final or proper meaning which is not clearly stated by the writer.

9. SQ3R standing for survey, question, read, recite and review refers to the skill

which helps you to point out only important point and fix them in your memory, resulting in reading faster.

10. Summary is the skill by which you state briefly in your words of the main ideas

and support used in a reading selection. However, three basic things for summary

are brief, complete and objective(the feeling and opinion of the people who

summarize is not included.

David and Thompson (2005) claimed that reading strategies were the tool the help the test-takers to understand the texts and got high score on the test such as standardized test like TOEIC. However, to achieve high score, they had to use a wide range of reading strategies under test conditions. They furthered that the important strategies to overcome the test included scanning, skimming, speeding reading, identifying and eliminating irrelevant information. Additionally, comprehending academic reading requires students to use more reading strategies such as analyzing the texts, making inference, and thinking critically.

Wichadee (2005) explained that reading strategies were the tool which the reader used spontaneously to help them understand the text better and she also described three major reading strategies which are extensively taught: scanning,

skimming, and intensive reading. For scanning, it is a type of reading that involves finding a particular piece of information located in material. The reader wants that information to answer set questions or to provide data in completing assignments. It differs from skimming which is reading rapidly through a text to get a general idea about the subject or what the text is about as a whole. In intensive reading, the reader tends to find details that support the main points picked out at the skimming level.

Abita (2005) defined reading strategies as deliberate, conscious procedures used by the readers to enhance text comprehension. She proposed 18 reading strategies and the steps in which each strategy occurs as follows:

1. Activating prior knowledge is to use pre-reading tasks to help reader make connections between new knowledge and what is known. This strategy occurs in the step of “Before Reading”.
2. Clarifying is to make the meaning of text clear to the reader. This strategy occurs in the step of “During Reading”.
3. Context clue is to use surrounding unknown word to determine its meaning. This strategy occurs in the step of “During Reading”.
4. Drawing conclusions is to use written or visual cues to figure out something that is not directly stated. This strategy occurs in the step of “After Reading”.

5. Evaluating is to form opinions, make judgment, and develop idea from reading.

This strategy occurs in the step of “During and After Reading”.

6. Fix-up is to encourage self-monitoring and checking for understanding. This

strategy occurs in the step of “During Reading”.

7. Inferring is to give logical guess based on the facts or evidence presented using

prior knowledge to help “read between the lines”. This strategy occurs in the step of

“During Reading”.

8. Key word is to identify words that guide the reader to determine the organizational

structure and content focus of the written text. This strategy occurs in the step of

“Before and During Reading”.

9. Predicting is to use text to decide what will happen next- confirm as they read. This

strategy occurs in the step of “Before and During Reading”.

10. QAR is to use question, answer, relationships to identify whether an answer will

be found in the text. This strategy occurs in the step of “Before, During, After

Reading”.

11. Rereading is to give the reader more than one chance to make sense of

challenging text. This strategy occurs in the step of “During Reading”.

12. Restating is to retell, shorten, or summarize the meaning of a passage orally or in

written form. This strategy occurs in the step of “During Reading”.

13. Setting a purpose is to provide a focus for the reader. This strategy occurs in the step of “Before Reading”.

14. Skimming is to read quickly to get the gist of a section while scanning is to read quickly to locate specific information. This strategy occurs in the step of “During Reading”.

15. Summarizing is to organize and restate information, usually in written form. This strategy occurs in the step of “During and After Reading”.

16. Surveying is to get a general idea about the text in order to anticipate information and structure. This strategy occurs in the step of “Before, During and After Reading”.

17. Think aloud is to engage the reader in metacognitive dialogue about his/her comprehension of text and the use of reading strategies. This strategy occurs in the step of “Before, During and After Reading”.

18. Visualizing is to use mental images that emerge from reading the text to aid in understanding. This strategy occurs in the step of “During Reading”.

To sum up, reading strategies can be viewed differently from each person.

Some view them as mental process, but some view them as plan, approach, and procedure. Any way, all of them view reading strategies as the tool to help the reader to comprehend the text effectively.

Regarding the types of reading strategies, upon reviewing the ideas of 10 reading researchers, the types of reading strategies which they proposed can be summarized in table 1 as follows:

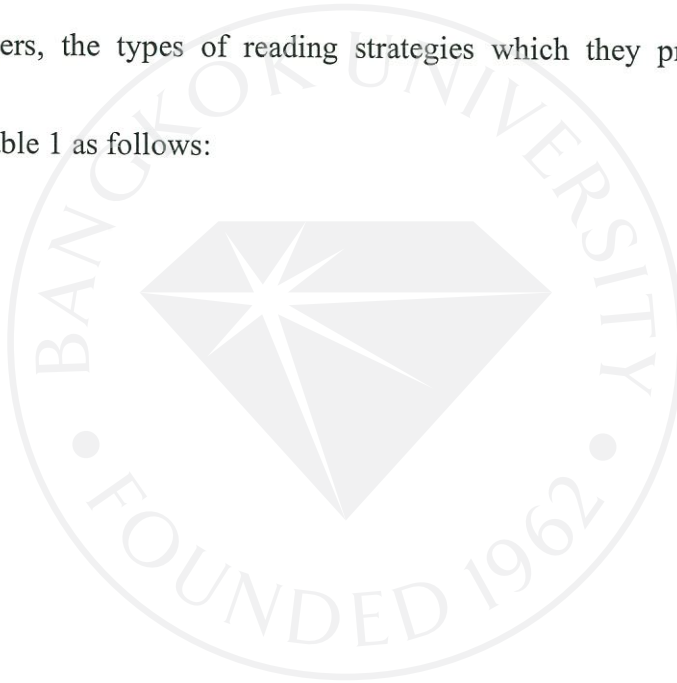


Table 1 : Summary of Reading Strategies Proposed by Ten Reading Researchers

Cohen	Duffy	Zhicheng	Brown	Wallace	Jacobus	Adam & Patterson	David & Thompson	Wichadee	Abita
Scanning	Using dictionary	Prediction	Scanning	Skipping inessential words	Skimming	Scanning	Scanning	Scanning	Skimming
Skimming	Schema	Looking for organization pattern	Skimming	Context clue	Recognizing pattern of organization	Skimming	Skimming	Skimming	Clarifying
Taking note		Context clues	Read silently	Reading in broad phrase (skimming)	Finding the main idea	Schema	Speeding reading	Finding main idea (intensive reading)	Context clue
Schema		Mental/ visual image	Mind map		Summarizing	Identifying main idea	Identifying main idea		Drawing conclusion
Identifying main idea		Grouping	Guessing wisely		Questioning	Using grammatical clue	Analyzing		Evaluating
Using monolingual dictionary		Story mapping	Using Word parts		Clarifying	Using word parts	Making inference		Fix-up (self-monitoring and checking
Context clues		Questioning & answering	Using Grammatical clues		Predicting	Context clue	Thinking critically		Inference
Summary			Schema		SQ3R	Making inference			Pattern of organization

Table 1 : Summary of Reading Strategies Proposed by Ten Reading Researchers

Cohen	Duffy	Zhicheng	Brown	Wallace	Jacobus	Adam & Patterson	David & Thompson	Wichadee	Abita
Prediction			Identifying main Idea			SQ3R			Predicting
Using of markers			Using context clues			summary			QAR (Question, answer, relationship)
Metacognition			Making inference						Rereading
									Context clue
									Setting a purpose
									Schema
									Summarizing
									Surveying
									Think aloud
									Visualizing

At this step, upon analyzing the types of reading strategies proposed by 10 reading researchers, the researcher of this research would like to conclude that there are 33 reading strategies as follows: 1) scanning 2) skimming 3) schema 4) identifying main idea and supporting details 5) using grammatical clues 6) using word parts 7) using context clues 8) making inference 9) taking note 10) using dictionary 11) summary 12) prediction 13) metacognition 14) mental/visual image 15) grouping 16) story mapping 17) questioning & question 18) read silently 19) mind map 20) guessing wisely 21) clarifying 22) SQ3R 23) speeding reading 24) analyzing 25) thinking critically 26) drawing conclusion 27) evaluating 28) fix-up (self-monitoring and checking) 29) QAR (question, answer, relation) 30) rereading 31) setting a purpose 32) surveying 33) think aloud.

However, as mentioning the reasons in chapter 1, the researcher undertakes this research by using 8 reading strategies to investigate the use of reading strategies of Bangkok University students. Those strategies are scanning, skimming, schema, identifying main idea and supporting details, using grammatical clues, using word parts, using context clues, and making inference

3. Related Research

According to the researcher's literature review, it was found that there were a number of researches about reading strategies in many aspects done by Thai and foreign researchers. These studies were summarized and presented as follows:

3.1 Research in Thailand

Suriyamanee (1993) studied self-assessment on reading strategy instruction of English language instructors at the undergraduate level in Rajamangala Institute of Technology. The population was 114 English instructors from 21 faculties and campuses. The research instrument was a questionnaire adapted from reading strategies proposed by G. Sarig. The result of the study showed that reading strategies used at the high level to improve students' reading ability were skimming, scanning, use of caption, decoding through synonym, using schema, predicting from the information obtained, and cumulative decoding.

After that, Dockiao (1996) compared inferencing ability and strategies in English reading of mathayomsuksa six students with different levels of English proficiency and prior reading background. She aimed to compare the inferencing ability and inferencing strategy used in English reading of the samples with different level of English proficiency and prior reading background. The findings indicated that

there was a statistically significant difference in the inferencing strategy used in English reading of students with different level of English proficiency and prior reading background at .01 level and that there was an interaction between level of English proficiency and prior reading background on the inferencing ability in reading English at .01 level of significance.

In 1999, Ravangvong examined EFL reading ability of Matayomsuksa 5 phromkiripittayakom school students with reading strategy training. The purposes of this study were to investigate whether certain reading strategies enhance EFL reading ability of Matayomsuksa 5 students and to examine their attitudes towards EFL reading before and after they were equipped with reading strategies. The experimental group was equipped with reading strategies, while the control group was taught through reading procedures without the reading strategy training for a sixteen-week period by the investigator. The findings of this study were summarized as follows: 1. The English reading ability of both groups was significantly different after the use of two different teaching methods ($p < 0.05$). 2. The attitudes towards EFL reading of the experimental group changed positively and significantly after the reading strategy training ($p < 0.01$). 3. The attitudes towards EFL reading of both subject groups changed positively and significantly after the use of two different teaching methods (p

< 0.01). However, the attitudes towards EFL reading of the experimental group changed more positively than those of the control group. 4. The subjects in the experimental group recognized the importance and benefit of the reading strategy training, and based on the interview, it was found that they utilized reading strategies more effectively after the training.

Kamwachirapitak (2003) investigated the effects of reading strategies based on cognitive psychology. The subjects were 45 undergraduate students at Ramkhamhaeng University. They were divided into three experimental groups. The four reading comprehension skills were recognition, main ideas, inference and problem solving. The findings revealed that all of the reading strategies improved the students' reading abilities.

Phakiti (2003) did a research on a closer look at gender and strategy use in L2 reading. This study examined gender differences in cognitive and metacognitive strategy use in the context of an English as a foreign language reading comprehension test. Three hundred eighty-four Thai university students took a multiple-choice reading comprehension test, then completed a questionnaire on their strategy use. Gender differences were analyzed using multivariate analysis of variance. Males and females did not differ in their reading comprehension performance and their use of

cognitive strategies. Unexpectedly, males reported significantly higher use of metacognitive strategies than females. Within the same achievement groups (highly successful, moderately successful, and unsuccessful), however, there were no gender differences in either reading performance or use of cognitive and metacognitive strategies. The article also discussed the implications for future gender-based research.

Naumnoi (2004) did a research which aimed to study the students' achievement of reading techniques on guessing English word meanings by analyzing word parts and using context clues. Her research's purposes were to compare the mean scores of the students before and after learning reading techniques for guessing English word meanings and to find out the correctness in guessing word meanings by using each reading techniques. The samplings were seventy nine second year English major students of Naresuan University, Phayao Campus. It was found that the average mean scores of the students that were obtained from the pretest and posttest were significantly different at the level of .05. and that the results of the correctness analysis showed the word parts analysis that the most correctly used technique was the prefixes, then the suffixes and the roots. Additionally, the results of the

correctness analysis of the contextual clues usage showed that the illustration was the most correctly used, followed by the explanation, the contrast, and the definition.

In 2005, Wijanpreecha conducted her research in order to investigate the relationship between reading strategies and reading abilities and to study the types and the number of reading strategies used by the students who were studying in the third year majoring in English in the Faculty of Education at Naresuan University. She found out that there was statistically significant relationship at .01 level between reading strategies and reading abilities and the most frequently used strategies were : applying images, using context and encouraging oneself. Moreover, the findings revealed that the students with higher reading proficiency employed more reading strategies than the students with moderate and lower reading proficiency.

In the same year, Wongphangamol studied the use of reading strategies by high and low English ability. The subjects of her study were 56 Mattayomsuksa six students of Assumption College Thonburi in both science and arts programs. The subjects in each program consisted of 28 students (14 high ability and 14 low ability). The findings revealed that there was no significant difference in the overall use of reading strategies between the two groups of science students. On the contrary, there was a significant difference in the overall strategies between the two groups in

arts program at the level of .05. The arts students with high English ability used all strategies more frequently than the low English ability arts students did.

3.2 Foreign Research

Zhicheng (1992) investigated the effect on reading comprehension in English as a Second Language (ESL) of formally incorporating four reading strategies into reading instruction. The four strategies taught were cognitive, memory, compensation, and test-taking strategies. The subjects were 29 students at the University of Alabama of varying language backgrounds in an academic English program. The samples consisted of 46.7% Japanese, 16.7% Korean, 10% Saudi Arabian, 6.7% Chinese, 6.7% Brazilian, 6.7% Venezuelan, 3.3% Costa Rican, and 3.3% Thai students. They were randomly assigned to experimental and control groups, and the experimental group was offered pre-reading activities. Both groups then read two texts of differing difficulty levels, each testing use of two different reading strategies. The results show that the introduction of reading strategies, particularly memory, cognitive, and compensation strategies, did help students make gains in reading comprehension, supporting previous research findings. Introduction of various techniques and strategies was also found to intensify the student's interaction with the text. Instruction in test-taking strategy did not improve

comprehension. Interaction effects between strategy and language proficiency level were statistically significant.

Dretzke and Keniston (1993) examined the relation between individual differences in reading behavior and achievement in college students. Subjects, 197 students enrolled in four undergraduate psychology courses at a Midwestern University, completed questionnaires concerning their reading strategies, attitudes toward reading, and personal background information. Responses to the strategy and attitude items on the questionnaire were submitted to factor analysis. Results indicated that a distinct set of factors, which replicated the factors identified by G. E. Rice and B. J. F. Meyer in their 1986 study, was generated: (1) enjoyment of reading; (2) summarizing strategy; (3) detail rehearsal strategy; (4) relating strategy; and (5) main idea strategy. Results also indicated that enjoyment of reading, summarizing strategy, and main idea strategy were positively correlated with course grades. Findings suggest that the survey instrument would be a valuable diagnostic tool to recommend reading strategies for students who are doing poorly in their course work.

Kuo (2002) organized a research on the proficiency and gender differences in reading strategies used by junior high school students towards the basic competence test. The findings showed that high proficiency students adopted more reading

strategies than low proficiency students and that there was no significant difference between boys and girls in reading strategies usage.

Dreyer and Nel (2003) implemented the research on teaching reading strategies and reading comprehension within a technology-enhanced learning environment. They described the format and structure of a strategic reading instruction component in an English for Professional Purposes course offered in a technology-enhanced environment over a 13-week semester. The program consisted of : a printed interactive study guide, (explaining the benefits of particular strategies); face-to-face contact sessions (modeling strategies and providing practice opportunities); and a technology-enhanced feature in the form of Varsite, a Learning Content Management System (LCMS). In pre-testing, all 131 first-year English as a Second Language (ESL) students were given a Reading Strategies Questionnaire, the TOEFL test, and two reading comprehension tests. The subjects were divided into “successful” and “ at risk” (30% of those enrolled), according to their performance on the reading comprehension test. Successful students’ use was found to be goal-directed, seeming to monitor and evaluate their learning by reading comprehension, while the at-risk used mainly meta-cognitive strategies. Post-testing of reading comprehension, following completion of the strategic reading instruction module,

showed significant increases in reading comprehension scores and use of reading strategies, especially among the at-risk' students in the experimental group.

Lau and Chan (2003) conducted a research with 83 good readers and 76 poor readers. They were compared on their ability to use reading strategies in English reading comprehension and on various reading motivation variables. The findings revealed that poor readers scored lower than good readers in using all reading strategies, and the ability to use reading strategies had the strongest relation with reading comprehension.

Poole (2005) investigated gender differences in reading strategy use among ESL college students. The use of a complex battery of reading strategies has been found to be obligatory for those English as a Second Language (ESL) students desirous of a high level of English language literacy and success in US academic institutions. Even though we know of the importance of reading strategies, little research exists on whether or not ESL males and females have similar or different strategic reading habits. This study endeavored to fill this void by comparing the academic reading strategies of 248 (138 = male; 110 = female) advanced college ESL students. The results of a quantitative survey showed very few strategic differences, with both genders using strategies with medium or high frequency. These findings

suggested that advanced ESL readers' strategies were primarily influenced by factors other than gender.

To conclude, the literature review cited above points out that reading strategies improve reading comprehension of the students. Generally, high-achievers use more reading strategies than low-achievers, and the students should be trained not only taught to use various and appropriate of reading strategies to improve reading comprehension. Thus, this research is one among others which intends to improve reading comprehension of the students by examining their use of reading strategies. However, apart from exploring the use of English reading strategies of the second-year students at Bangkok University, this research compares the use of English reading strategies between the low-achievers and high-achievers and compares the use of reading strategies of the second-year students classified by their background information, i.e. gender, faculty, English learning experience, and reading behaviour outside class. The researcher hopes that the findings of this research will be useful and can be applied by the parties involved.

CHAPTER III

RESEARCH METHODOLOGY

This chapter presents the procedures in conducting the research to investigate the use of reading strategies of the second-year students of Bangkok University. The important aspects in conducting this research are presented as follows: population and subjects, research instruments, data collection, and data analysis.

1. Population and Subjects

1.1 Population

The population of this study obtained from BU intranet was 3,685 second-year students enrolling in EN211 course (four-year program) in semester one of the academic year of 2006 at Bangkok University. All of them were from Faculty of Communication Art, Fine and Applied Arts, Law, Engineering, Humanities, Science and Technology, Accounting, Business Administration, and Economics.

1.2 Samples

The samples in this study were 370 second-year students enrolling in EN 211 course (four-year program) in semester one of the academic year of 2006 selected from Stratified Random Sampling technique with following steps:

1. The estimated sample size was based on Taro Yamane table. A 95% of confidence level is selected with a precision rate of $\pm 5\%$. When the population is 3,685, the samples should be at least 364. However, in order to avoid the possibility of incomplete or unreturned questionnaires, the researcher agreed to employ 370 samples in this study which had sampling rate error $< \pm 5\%$.
2. The researcher divided proportionally the samples into groups according to the faculty. The number of students from nine faculties were shown in table 2.

Table 2 : Population and samples of Bangkok University students

Faculty	population	Samples
1. Accounting	612	61
2. Law	214	22
3. Science and Technology	360	36
4. Communication Arts	1,115	111
5. Economics	86	9
6. Engineering	137	14
7. Humanities	206	21
8. Fine and Applied Arts	306	31
9. Business Administration	649	65
Total	3,685	370

3. For an interview, the researcher randomized another 12 subjects from all 370 subjects (six from low achievers and another six from high achievers) through simple random sampling technique.

2. Instruments

The instruments used for collecting data were a questionnaire, a reading comprehension test, and an in-depth interview.

2.1 The questionnaire consists of two parts.

- The first part was about the respondent's background. It consisted of four aspects: gender, faculty, English learning experience, reading behavior outside class.

- The second part was based on reading strategies proposed by Adams & Patterson(2001). It aimed to examine the respondent's reading strategies usage when he/ she reads and also focuses on the eight reading strategies: scanning, skimming, schema, identifying main ideas and supporting details, using grammatical clues, using word parts, using context clues, and making inferences. This part consisted of 47 items in the form of Likert rating scales ranging from "very frequently", "frequently", "sometimes", "rarely", to "never" for the students to check in the column. The samples were asked to complete the questionnaire immediately after taking the reading test.

In order to avoid misinterpretation of the language used in each items, the questionnaire was prepared in Thai language for the students.

2.1.1 Validity of the questionnaire

A variety of related research and theory concerning reading strategies were studied to get the relevant information about the scope of this study in order to provide guidelines for topics in the draft questionnaire. Then the draft questionnaire was examined with the suggestions of four specialists: three in English teaching field and one in statistics field. After that, the final revision was done according to the results of assessment of each item. It was found that the congruence index is 0.96.

2.1.2 Reliability of the questionnaire

To test the proper reliability of the questionnaire, the questionnaire was piloted with 40 second-year students during summer session of academic year 2005 at Bangkok University and calculated for proper reliability value on five-point scale items by using Cronbach's Coefficient Alpha. It was found that the reliability of this questionnaire is 0.948

2.2 The reading comprehension test was in a multiple-choice form containing 40 items. It was created to measure students' reading proficiency. The content was based on course description of EN 211 (Intermediate English) for second-year students which focused on 8 strategies: scanning, skimming, schema, identifying main ideas and supporting details, using grammatical clues, using word

parts, using context clues, and making inferences. Time allowed for the test was 100 minutes. The scores got after checking the test will be used to divide the samples into three groups (high achievers, medium achievers, and low achievers) based on one-third criterion of the whole score range. In this case, the score range was equal (13.33) which was calculated from $(40 \div 3 = 13.33)$. Hence, the scores of three groups will be ranged accordingly :

Low achievers = 0-13.33

Medium achievers = 13.34-26.66

High achievers = 26.67-40

However, upon reviewing literatures of Lau and Chan (2003) and Wijanpreecha (2005), they used only two groups of achievers (low and high achievers) to compare the use of reading strategies of the students. The results of their research showed that high achievers whose reading comprehension were good used reading strategies more frequently than the low achievers whose reading comprehension were poor. So, in this research, the researcher decided to use only low and high achievers group to investigate the use of reading strategies of the students at Bangkok University. However, the medium group will not be ignored because the results of this research will also be used to encourage low and medium achievers to

use reading strategies more extensively so that their reading comprehension will be improved.

Procedure of Constructing and Developing the Reading Test

1. analyze the course objectives of EN 211
2. study textbooks, document, and research about how to construct a test
3. select four unseen texts which have the same difficulty level as the texts used in EN 211 course and write 50 multiple-choice questions for those text.
4. request four specialists, one English teacher from Thammasat University and three English teachers at Language Institute, Bangkok University, to check the content validity of the test items.
5. improve the test items using the comments obtained from the specialists, then select only 40 items for the reading test. The congruence index value of the 40-multiple choice reading test is .94.
6. conduct a try-out for the reading test with 50 students who were taking EN 211 course (Intermediate English) in summer session of the academic year 2005 to find out difficulty and discrimination level. The students who had done the try-out did not participate in the study.
7. select the test which had 0.20-0.80 difficulty level (p value) and over 0.20 discrimination level (r value) for this test. (Kajornsilp, 2000)

2.3 The in-depth interview

The in-depth interview was conducted to elicit the further information about the use of reading strategies and the reasons why the subjects chose to use those strategies. The structured interview questions were employed in the in-depth interview. To conduct the interview, six with highest scores and six with the lowest scores were randomized through simple random sampling technique to give their opinions on three questions provided. Each subject was individually interviewed for about half an hour and the interview was conducted in Thai and recorded by a tape.

The questions were as follows:

1. What reading strategies do you use when reading? How often do you use them?
2. What are the advantages of reading strategies you use?
3. What reading strategies do you use when you read the following publications, Why and How?

3.1 newspaper

3.2 journal and magazine

3.3 textbook and academic text

3.4 advertisement

After finishing the interview, the researcher will summarize the ideas about reading strategies usage given by both groups of low and high achievers and use them to support the research findings.

3. Data Collection

The data were collected from 370 second-year students at Bangkok University. They enrolled in a required EN 211 Course (Intermediate English) in the first semester of 2006 academic year. The researcher got the samples of all faculties through the student lists appearing in BU Intranet. All questionnaires and tests were given to the samples and taken back by the researcher. It took about three weeks for data collection of all questionnaires.

4. Data Analysis

After the tests were scored, the researcher calculated for appropriate ranges and divided the students into 3 groups (high, medium, low). However, two groups of achievers were chosen to be analyzed for the characteristic of reading proficiency.

Then the data got from the questionnaires were statistically analyzed through the following statistical device:

4.1 Percentage was used to demonstrate the background information of second-year students.

4.2 Mean and standard deviation were employed to analyze the level of reading strategy usage.

Then the computed means of reading strategy usage were interpreted in the form of range as shown in table 3.

Table 3 : Interpretation of Means of Reading Strategies Usage

Mean range	Level of strategy usage	Meaning
4.50-5.00	very extensive	using reading strategies with most frequency
3.50-4.49	extensive	using reading strategies with much frequency
2.50-3.49	medium	using reading strategies with medium frequency
1.50-2.49	little	using reading strategies with little frequency
1.00-1.49	very little	using reading strategies with very little frequency

4.3 A t-test analysis was used to compare the mean scores of the opinions on reading strategy usage of two groups of achievers (low and high achievers) and two groups of gender.

4.4 One-way analysis of variance (ANOVA) was employed to test the mean scores of the opinions on reading strategy usage in terms of faculty, English learning experience, and reading behavior outside class. If there is a statistically significant difference, the researcher will use Scheffe to compare each pair because it does not restrict the condition of group number of each variable and sample size in each group.

CHAPTER IV

RESULT AND ANALYSIS

After analyzing the data concerning the usage of reading strategies of 370 second-year students of Bangkok University from 9 faculties enrolling EN 211 (Intermediate English) in the first semester of academic year 2006, the researcher presents the results accordingly.

Part 1: Demographic Information of Respondents

Part 2: The Use of Reading Strategies Employed by Bangkok University Students

Part 3: The Comparison of the Use of Reading Strategies Classified by Background Information

Part 4 : Result of an Interview

Part 1 : Demographic Information of Respondents

Demographic information of respondents such as gender, faculty, English learning experience, reading behavior outside class, and group of achievers is presented in table 4.

Table 4 Number and Percentage of Demographic Information of Respondents

Status	Number	Percentage
1. Gender		
Male	157	42.43
Female	213	57.57
2. Faculty		
Accounting	61	16.49
Law	22	5.95
Science and Technology	36	9.73
Communication Arts	111	30.00
Economics	9	2.43
Engineering	14	3.78
Humanities	21	5.68
Fine and Applied Arts	31	8.38
Business Administration	65	17.57
3. English Learning Experience		
Less than 8 years	14	3.78
8-12 years	93	25.14
More than 12 years	263	71.08
4. Reading Behavior Outside Class		
Often	32	8.65
Sometimes	309	83.51
Never	29	7.84
5. Group of Achievers		
Low achiever	89	24.05
Medium achiever	238	64.32
High achiever	43	11.62

Table 4 shows that, out of 370 respondents, 157 were male (42.43%) while 213 were female (57.57%).

In terms of faculty, the majority of respondents was from Communication Arts (30.00%) followed by Business Administration (17.57%) and Accounting (16.49%).

When categorized by English learning experience, 263 respondents (71.08%) spent more than 12 years learning English while 93 people (25.14%) spent 8-12 years and 14 people (3.78%) spent less than 8 years learning English respectively.

Regarding reading behavior outside class, 309 respondents (83.51%) reported that they sometimes read English publications outside class whereas 32 respondents (8.64%) often read and 29 respondents (7.84%) never read.

From the reading scores, the respondents were classified into three groups: high achievers, medium achievers, and low achievers. The majority of respondents was medium achievers (64.32%). Low achievers (24.05%) were placed the second and high achievers (11.62%) were placed the third respectively.

Part 2: The Use of Reading Strategies by Bangkok University Students

Data analysis of the use of eight reading strategies of Bangkok University students including scanning, skimming, schema, identifying main idea and supporting details, using grammatical clues, using word parts, using context clues, making inference was presented in Table 5-13.

Table 5 The Results of the Use of Reading Strategies by Bangkok University Students

Reading Strategies	\bar{X}	S.D.	Level
1. Scanning	3.84	.61	extensive
2. Skimming	3.49	.59	medium
3. Schema	3.54	.71	extensive
4. Identifying main idea and supporting details	3.42	.63	medium
5. Using grammatical clues	3.21	.77	medium
6. Using word parts	3.12	.93	medium
7. Using context clues	3.41	.68	medium
8. Making inference	3.55	.80	extensive
Total	3.45	.49	medium

Table 5 shows that the overall use of strategies was medium ($\bar{X} = 3.45$) which could be interpreted that the students use all strategies moderately. The three most frequently used strategies were scanning ($\bar{X} = 3.84$), making inference ($\bar{X} = 3.55$), and schema ($\bar{X} = 3.54$) respectively. These items were at an extensive level.

Table 6 The Result of the Use of Scanning

Scanning	\bar{X}	S.D.	level
1. When you are reading, you sweep your eyes through the passage to locate relevant specific information.	3.81	.79	extensive
2. If you do the test, you will look at the questions first, then go back to look for specific answers in the passage.	3.92	.78	extensive
3. While you are reading, you always realize that you are looking for the answer.	3.77	.84	extensive
4. You look at charts, graphs, pictures, or captions to help you understand the text.	3.79	.78	extensive
5. While you are reading, you will observe words that are italicized or bold.	3.90	.78	extensive
Total	3.84	.61	extensive

Table 6 shows that the use of reading strategy in terms of scanning was at extensive level ($\bar{X} = 3.84$). When considering each item, item2 (If you do the test, you will look at the questions first, then go back to look for specific answers in the passage) got the highest mean scores ($\bar{X} = 3.92$) followed by item 5 (While you are reading, you will observe words that are italicized or bold) ($\bar{X} = 3.90$) and item 1 (When you are reading, you sweep your eyes through the passage to locate relevant specific information) ($\bar{X} = 3.81$) respectively.

Table 7 The Result of the Use of Skimming

Skimming	\bar{X}	S.D.	level
1. While you are reading, you will move your eyes very quickly through the whole passage to get the information and idea.	3.62	.86	extensive
2. While you are reading, you will move your eyes very quickly to predict the purpose of the passage.	3.58	.85	extensive
3. When you read the passage, you read the first line of each paragraph.	3.78	.98	extensive
4. When you read, you will read in broad phrase.	3.38	.96	medium
5. You will read only important words or phrases.	3.11	.95	medium
Total	3.49	.59	medium

Table 7 indicates that the average mean of skimming was 3.49. The first three items that were used the most frequently were item 3 (When you read the passage, you read the first line of each paragraph) ($\bar{X} = 3.78$), item 1 (While you are reading, you will move your eyes very quickly through the whole passage to get the information and idea) ($\bar{X} = 3.62$) and item 2 (While you are reading, you will move your eyes very quickly to predict the purpose of the passage) ($\bar{X} = 3.58$) respectively. These items were at an extensive level.

However, the least frequently used item was item 5 (You will read only important words or phrases) ($\bar{X} = 3.11$). This item was at a medium level.

Table 8 The Result of the Use of Schema

Schema	\bar{X}	S.D.	level
1. Before you read, you think of what you already know about the topic.	3.49	.91	medium
2. While you are reading, you connect your background knowledge to what is being read.	3.53	.92	extensive
3. While you are reading, you will decide whether the information makes sense based on what you already know about the topic.	3.56	.86	extensive
4. While you are reading, you imagine scenes or draw pictures of what you are reading.	3.64	.96	extensive
5. After you read, you will use your knowledge and experience to lead you to logical conclusion.	3.51	.89	extensive
Total	3.54	.71	extensive

Table 8 shows that the average use of reading strategy in terms of schema was at an extensive level ($\bar{X} = 3.54$). The first three items that were used the most frequently were item 4 (While you are reading, you imagine scenes or draw pictures of what you are reading) ($\bar{X} = 3.64$) followed by item 3 (While you are reading, you will decide whether the information makes sense based on what you already know about the topic) ($\bar{X} = 3.56$) and item 2 (While you are reading, you connect your background knowledge to what is being read) ($\bar{X} = 3.53$) respectively. These items were at an extensive level.

However, the least frequently used item was item 1 (Before you read, you think of what you already know about the topic) ($\bar{X} = 3.49$). This item was at a medium level.

Table 9 The Result of the Use of Identifying Main Idea and Supporting details

Identifying Main Idea and Supporting details	\bar{X}	S.D.	level
1. When you read, you will search for topic sentence of each paragraph.	3.60	.91	extensive
2. While you are reading, you look for detail (fact, reason, or statistics) used to support the topic sentence.	3.54	.85	extensive
3. You make use of main idea and supporting detail to help you understand the passage.	3.57	.83	extensive
4. When you read, you will distinguish between main ideas, major details and minor details.	3.18	.89	medium
5. You will compose the statement of main idea when none appears in the text.	3.16	.88	medium
6. When you read, you will recognize the pattern of organization of the text (e.g. chronological order, cause and effect and compare and contrast).	3.30	.88	medium
7. When you read, you will look for the topic of the text.	3.83	.89	extensive
8. You summarize in your mind or in writing important information that you read.	3.16	.87	medium
Total	3.42	.63	medium

Table 9 illustrates that the average mean of identifying main idea and supporting details was ($\bar{X} = 3.42$) which could be interpreted that the students' level usage of this strategy was at a medium level. The first three items that were used the most frequently by students were item 7 (When you read, you will look for the topic of the text) ($\bar{X} = 3.83$), item 1 (When you read, you will search for topic sentence of each paragraph) ($\bar{X} = 3.60$) and item 3 (You make use of main idea and supporting detail to help you understand the passage) ($\bar{X} = 3.57$) respectively. These items were at an extensive level.

However, the least frequently used items were item 5 (You will compose the statement of main idea when none appears in the text) ($\bar{X} = 3.16$) and item 8 (You summarize in your mind or in writing important information that you read) ($\bar{X} = 3.16$). These items were at a medium level.

Table 10 The Result of the Use of Using Grammatical Clues

Using Grammatical Clues	\bar{X}	S.D.	level
1. You use the knowledge of part of speech (noun, verb, adjective) to help you understand word meaning and sentence structure.	3.22	.91	medium
2. You use the knowledge of sentence pattern to help you understand long and complex sentences which are difficult to interpret.	3.18	.91	medium
3. You use punctuation (dash, colon, and parenthesis) as a signal to help you understand word meaning.	3.26	.98	medium
4. You notice some modifiers to help you understand unfamiliar words.	3.19	.89	medium
5. You use the knowledge of subject and verb agreement to help you understand word and sentence meanings.	3.16	.90	medium
6. You use the knowledge of tense to help you understand the event of what you are reading.	3.25	.97	medium
7. You use the knowledge of phrase such as participial phrase, gerundial phrase and infinitive phrase to help you understand words and sentence meanings.	3.21	.89	medium
8. You use the knowledge of clause such as adjective clause, noun clause and adverb clause to help you understand words and sentence meanings.	3.19	.90	medium
9. You use the knowledge of type of sentence to help you understand sentence meanings.	3.26	.95	medium
Total	3.21	.77	medium

Table 10 shows that the average use of reading strategy in terms of using grammatical clues was at a medium level ($\bar{X} = 3.21$). When considering each item, item 3 (You use punctuation (dash, colon, and parenthesis) as a signal to help you understand word meaning) and item 9 (You use the knowledge of type of sentence to help you understand sentence meanings) got the highest mean scores ($\bar{X} = 3.26$) followed by item 6 (You use the knowledge of tense to help you understand the event of what you are reading) ($\bar{X} = 3.25$) and item 1 (You use the knowledge of part of speech (noun, verb, adjective) to help you understand word meaning and sentence structure) ($\bar{X} = 3.22$) respectively. These items were at a medium level.

However, item 5 (You use the knowledge of subject and verb agreement to help you understand word and sentence meanings) was reported to be the least frequently used at a medium level. ($\bar{X} = 3.16$).

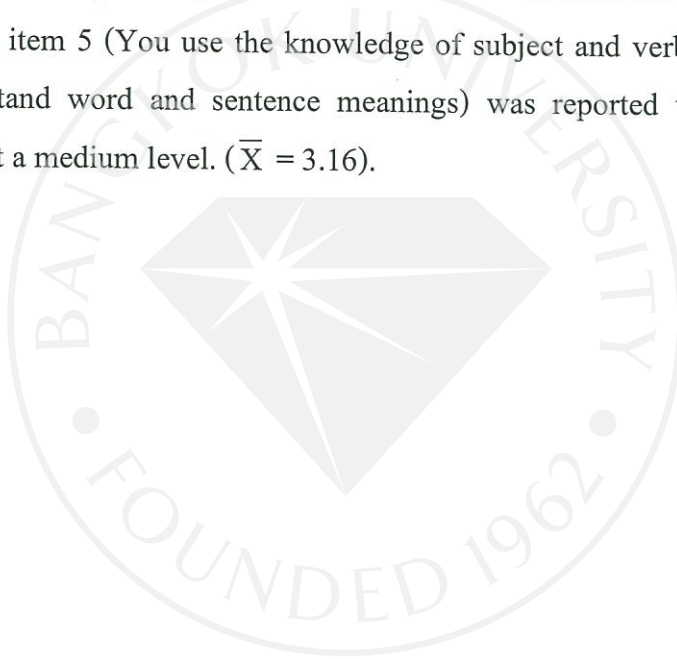


Table 11 The Result of the Using Word Parts

Using Word Parts	\bar{X}	S.D.	level
1. You use the knowledge of root to help you understand the meaning of unfamiliar word.	3.09	.96	medium
2. You use the knowledge of prefix to help you understand the meaning of unfamiliar word.	3.17	.91	medium
3. You use the knowledge of suffix to help you understand the meaning of unfamiliar word.	3.11	.95	medium
Total	3.12	.93	medium

Table 11 shows that the average mean of using word parts was at a medium level ($\bar{X} = 3.12$). When considering each item, item2 (You use the knowledge of prefix to help you understand the meaning of unfamiliar word) ($\bar{X} = 3.17$) was placed no.1 followed by item 3 (You use the knowledge of suffix to help you understand the meaning of unfamiliar word) ($\bar{X} = 3.11$) and item 1 (You use the knowledge of root to help you understand the meaning of unfamiliar word) ($\bar{X} = 3.09$) was placed the third order.

Table 12 The Result of Using Context Clues

Using Context Clues	\bar{X}	S.D.	level
1. When you see pronoun reference (he, she, it, that, those), you will find what they refer to by repeating the preceding sentences.	3.56	.88	extensive
2. You use restatement to help you understand difficult words.	3.42	.92	medium
3. You notice transitional markers such as first, however, therefore, but, similarly etc to help you understand sequence, emphasis, contrast, and similarity.	3.35	.85	medium
4. You use relative clause to help you understand difficult words.	3.44	.88	medium
5. You make use of synonym and antonym to help you understand unfamiliar words.	3.25	.91	medium
6. When you read a word you don't know, you try to figure out its meaning by looking at the rest of the story.	3.43	.90	medium
Total	3.41	.68	medium

Table 12 indicates that the average mean of using context clues was at a medium level. ($\bar{X} = 3.41$) Among all items, the first three items that were used the most frequently were item 1 (When you see pronoun reference (he, she, it, that, those), you will find what they refer to by repeating the preceding sentences) ($\bar{X} = 3.56$), item 4 (You use relative clause to help you understand difficult words) ($\bar{X} = 3.44$) and item 6 (When you read a word you don't know, you try to figure out its meaning by looking at the rest of the story) ($\bar{X} = 3.43$) respectively.

However, the least frequently used item was no. 5 (You make use of synonym and antonym to help you understand unfamiliar words) ($\bar{X} = 3.25$).

Table 13 The Result of Making Inference

Making Inference	\bar{X}	S.D.	level
1. You will read between the lines when you want to conclude the writer's idea which was not stated directly and clearly in the passage.	3.56	.89	extensive
2. While you are reading, you periodically check whether the material is making sense to you.	3.61	.84	extensive
3. You use clues in a text along with what you already know to figure out what the author means.	3.55	.88	extensive
4. When you read, you will go beyond literal interpretation.	3.51	.88	extensive
5. You make reasonable predictions and test or revise those predictions as you read further.	3.65	.84	extensive
6. After you read, you will synthesize a new idea and information.	3.41	.84	medium
Total	3.55	.80	extensive

Table 13 shows that the average mean of making inference usage was at an extensive level ($\bar{X} = 3.55$). The first three items that were used the most frequently were item 5 (You make reasonable predictions and test or revise those predictions as you read further) ($\bar{X} = 3.65$) followed by item 2 (While you are reading, you periodically check whether the material is making sense to you) ($\bar{X} = 3.61$) and item 1 (You will read between the lines when you want to conclude the writer's idea which was not stated directly and clearly in the passage) ($\bar{X} = 3.56$) respectively. These items were at an extensive level. However, item 6 (After you read, you will synthesize a new idea and information) ($\bar{X} = 3.41$) was reported to be used the least frequently at a medium level.

The results of the study of the use of reading strategy of Bangkok University students categorized by variables including gender, group of achievers (low and high), faculty, English learning experience, and reading behavior outside class were illustrated in table 14-18.

Table 14 Mean and Standard Deviation of the Use of Reading Strategy of Bangkok University Students Classified by Gender

Reading Strategy	Male		Female		Total	
	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1. Scanning	3.83	.61	3.84	.62	3.84	.61
2. Skimming	3.56	.60	3.45	.58	3.49	.59
3. Schema	3.60	.65	3.50	.75	3.54	.71
4. Identifying main idea and supporting details	3.40	.62	3.43	.64	3.42	.63
5. Using grammatical clues	3.19	.74	3.23	.79	3.21	.77
6. Using word parts	3.15	.90	3.10	.95	3.12	.93
7. Using context clues	3.37	.65	3.44	.70	3.41	.68
8. Making inference	3.57	.79	3.54	.81	3.55	.80
Total	3.46	.48	3.44	.51	3.45	.49

Table 14 shows that average strategy usage of male and female students was a little bit different. That is, both of male and female students used reading strategy at a medium level ($\bar{X} = 3.46$, $\bar{X} = 3.44$).

When considering all strategies, it was found that the first three strategies that were used the most frequently by male students were scanning ($\bar{X} = 3.83$), schema ($\bar{X} = 3.60$), and making inference ($\bar{X} = 3.57$). These strategies were at an extensive level.

The first three strategies that were used the most frequently by female students were scanning ($\bar{X} = 3.84$), making inference ($\bar{X} = 3.54$), and schema ($\bar{X} = 3.50$). They used these three items at an extensive level.

Moreover, five reading strategies were used by female students at a medium level. These were skimming ($\bar{X} = 3.45$), identifying main idea and supporting details ($\bar{X} = 3.43$), using grammatical clues ($\bar{X} = 3.23$), using word parts ($\bar{X} = 3.10$), and using context clues ($\bar{X} = 3.44$).

There were four strategies which male students used at an extensive level: scanning ($\bar{X} = 3.83$), schema ($\bar{X} = 3.60$), making inference ($\bar{X} = 3.57$), and skimming ($\bar{X} = 3.56$). In addition, four reading strategies were used by male students at a medium level. These were identifying main idea and supporting details ($\bar{X} = 3.40$), using context clues ($\bar{X} = 3.37$), using grammatical clues ($\bar{X} = 3.19$), and using word parts ($\bar{X} = 3.15$).

Table 15 Mean and Standard Deviation of the Use of Reading Strategy of Bangkok University Students Classified by Group of Achievers

Reading Strategy	High Achiever		Low Achiever		Total	
	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1. Scanning	3.94	.59	3.87	.62	3.84	.61
2. Skimming	3.72	.61	3.47	.54	3.49	.59
3. Schema	3.85	.69	3.51	.70	3.54	.71
4. Identifying main idea and supporting details	3.76	.65	3.29	.59	3.42	.63
5. Using grammatical clues	3.62	.71	2.96	.69	3.21	.77
6. Using word parts	3.60	.94	2.79	.88	3.12	.93
7. Using context clues	3.67	.71	3.26	.63	3.41	.68
8. Making inference	3.70	.63	3.44	.83	3.55	.80
Total	3.73	.55	3.32	.38	3.45	.49

Table 15 shows that high achievers and low achievers had different levels of strategy usage. That is, high achievers had an extensive level of strategy usage ($\bar{X}=3.73$) while low achievers had a medium level of strategy usage ($\bar{X}=3.32$).

When considering all strategies, it was found that high achievers used all eight strategies at an extensive level. Low achievers used six strategies at a medium level including skimming ($\bar{X}=3.47$), making inference ($\bar{X}=3.44$), identifying main idea and supporting details ($\bar{X}=3.29$), using context clues ($\bar{X}=3.26$), using grammatical clues ($\bar{X}=2.96$), and using word parts ($\bar{X}=2.79$). However, they used two strategies (scanning ($\bar{X}=3.87$) and schema ($\bar{X}=3.51$)) at an extensive level.

Table 16 Mean and Standard Deviation of the Use of Reading Strategy of Bangkok University Students Classified by Faculty

Reading Strategy	Accounting		Law		Science and Technology		Communication Arts		Economics		Engineering		Humanities		Fine and Applied Arts		Business Administration		Total	
	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1. Scanning	3.77	.60	3.92	.62	3.63	.65	3.84	.59	3.58	.34	3.66	.48	4.48	.51	3.95	.59	3.79	.59	3.84	.61
2. Skimming	3.44	.57	3.32	.55	3.20	.50	3.52	.63	3.33	.40	3.58	.55	4.27	.42	3.59	.57	3.43	.51	3.49	.59
3. Schema	3.38	.56	3.51	.83	3.21	.67	3.50	.71	3.07	.33	3.51	.59	4.48	.50	3.79	.61	3.62	.69	3.54	.71
4. Identifying main idea and supporting details	3.35	.43	3.33	.66	3.06	.59	3.39	.63	3.19	.42	3.50	.64	4.33	.50	3.40	.73	3.48	.58	3.42	.63
5. Using grammatical clues	3.02	.60	3.38	.82	3.13	.52	3.06	.74	3.07	.15	3.38	.49	4.36	.68	3.34	.73	3.19	.88	3.21	.77
6. Using word parts	2.84	.73	2.95	.87	2.89	.82	3.07	.88	3.11	.33	3.48	.64	4.48	.75	3.22	1.15	3.11	.92	3.12	.93
7. Using context clues	3.25	.56	3.59	.58	2.99	.67	3.41	.64	3.22	.23	3.48	.63	4.36	.44	3.43	.65	3.40	.72	3.41	.68
Making inference	3.27	.68	3.51	1.01	3.62	.78	3.60	.80	3.35	.53	3.45	.63	4.35	.52	3.57	.83	3.47	.82	3.55	.80
Total	3.29	.33	3.44	.40	3.22	.44	3.43	.44	3.24	.16	3.50	.54	4.39	.36	3.54	.47	3.44	.49	3.45	.49

From table 16, the average mean scores of nine faculties were presented as follows:

1. Faculties which had an extensive level of strategy usage included Engineering ($\bar{X}=3.50$), Humanities ($\bar{X}=4.39$), and Fine and Applied Arts ($\bar{X}=3.54$).
2. Faculties which had a medium level of strategy usage included Accounting ($\bar{X}=3.29$), Law ($\bar{X}=3.44$), Science and Technology ($\bar{X}=3.22$), Communication Arts ($\bar{X}=3.43$), Economics ($\bar{X}=3.24$), and Business Administration ($\bar{X}=3.44$).

When considering all strategies, it was found that the students from Accounting used scanning at an extensive level ($\bar{X}=3.77$) while they used seven strategies at a medium level which included skimming ($\bar{X}=3.44$), schema ($\bar{X}=3.38$), identifying main idea and supporting details ($\bar{X}=3.35$), using grammatical clues ($\bar{X}=3.02$), using word parts ($\bar{X}=2.84$), using context clues ($\bar{X}=3.25$), and making inference ($\bar{X}=3.27$).

Students from faculty of Law used four strategies at an extensive level including scanning ($\bar{X}=3.92$), schema ($\bar{X}=3.51$), using context clues ($\bar{X}=3.59$), and making inference ($\bar{X}=3.51$). However, they also used four strategies at a medium

level. These were skimming ($\bar{X}=3.32$), identifying main idea and supporting details ($\bar{X}=3.33$), using grammatical clues($\bar{X}=3.38$), and using word parts ($\bar{X}=2.95$).

Students from the faculty of Science and Technology used two strategies at an extensive level including scanning ($\bar{X}=3.63$) and making inference ($\bar{X}=3.62$). However, they also used six strategies at a medium level. These were skimming ($\bar{X}=3.20$), schema ($\bar{X}=3.21$), identifying main idea and supporting details ($\bar{X}=3.06$), using grammatical clues ($\bar{X}=3.13$), using word parts ($\bar{X}=2.89$) and using context clues ($\bar{X}=2.99$).

Students from Communication Arts used four strategies at an extensive level including scanning ($\bar{X}=3.84$), skimming ($\bar{X}=3.52$), schema ($\bar{X}=3.50$), and making inference ($\bar{X}=3.60$). However, they also used four strategies at a medium level. These were identifying main idea and supporting details ($\bar{X}=3.39$), using grammatical clues ($\bar{X}=3.06$), using word parts ($\bar{X}=3.07$) and using context clues ($\bar{X}=3.41$).

It was found that the students from Economics used scanning at an extensive level ($\bar{X}=3.58$) while they used seven strategies at a medium level which includes skimming ($\bar{X}=3.33$), schema ($\bar{X}=3.07$), identifying main idea and supporting details ($\bar{X}=3.19$), using grammatical clues($\bar{X}=3.07$), using word parts ($\bar{X}=3.11$), using context clues ($\bar{X}=3.22$), and making inference ($\bar{X}=3.35$).

The students from Engineering used four strategies at an extensive level including scanning ($\bar{X}=3.66$), skimming ($\bar{X}=3.58$), schema ($\bar{X}=3.51$), identifying main idea and supporting details ($\bar{X}=3.50$). However, they also used four strategies at a medium level. These were using grammatical clues ($\bar{X}=3.38$), using word parts ($\bar{X}=3.48$), using context clues ($\bar{X}=3.48$), and making inference ($\bar{X}=3.45$).

The students from Humanities used all eight strategies at an extensive level.

The students from Fine and Applied Arts used four strategies at an extensive level including scanning ($\bar{X}=3.95$), skimming ($\bar{X}=3.59$), schema ($\bar{X}=3.79$), and making inference ($\bar{X}=3.57$). However, they also used four strategies at a medium level. These were identifying main idea and supporting details ($\bar{X}=3.40$), using grammatical clues ($\bar{X}=3.34$), using word parts ($\bar{X}=3.22$), and using context clues ($\bar{X}=3.43$).

For Business Administration, the students used scanning and schema at an extensive level ($\bar{X}=3.79$ and $\bar{X}=3.62$) while they used six strategies at a medium level which includes skimming ($\bar{X}=3.43$), identifying main idea and supporting details ($\bar{X}=3.48$), using grammatical clues ($\bar{X}=3.19$), using word parts ($\bar{X}=3.11$), using context clues ($\bar{X}=3.40$), and making inference ($\bar{X}=3.47$).

Table 17 Mean and Standard Deviation of the Use of Reading Strategy of Bangkok University Students Classified by English Learning Experience

Reading Strategy	Less than 8 yrs		8-12 yrs		More than 12 yrs		Total	
	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1. Scanning	3.61	.67	3.81	.60	3.86	.61	3.84	.61
2. Skimming	3.21	.71	3.38	.58	3.55	.59	3.49	.59
3. Schema	3.20	.89	3.42	.65	3.61	.71	3.54	.71
4. Identifying main idea and supporting details	3.31	.55	3.32	.55	3.46	.66	3.42	.63
5. Using grammatical clues	2.72	.72	3.01	.75	3.31	.76	3.21	.77
6. Using word parts	2.76	1.00	2.82	.79	3.25	.94	3.12	.93
7. Using context clues	3.05	.47	3.27	.61	3.47	.70	3.41	.68
8. Making inference	3.20	.76	3.34	.74	3.64	.81	3.55	.80
Total	3.13	.47	3.30	.42	3.52	.50	3.45	.49

Table 17 shows that the students with English learning experience of less than 8 years, 8-12 years, and more than 12 years had different level of strategy usage. That is, the students with English learning experience of less than 8 years and 8-12 years had a medium level of strategy usage ($\bar{X}=3.13$ and $\bar{X}=3.30$) while the students with English learning experience of more than 12 years had an extensive level of strategy usage ($\bar{X}=3.52$).

When considering all strategies, the students with English learning experience of less than 8 years used seven strategies at a medium level including skimming ($\bar{X}=3.21$), schema ($\bar{X}=3.20$), identifying main idea and supporting details ($\bar{X}=3.31$), using grammatical clues ($\bar{X}=2.72$), using word parts ($\bar{X}=2.76$), using context clues ($\bar{X}=3.05$), and making inference ($\bar{X}=3.20$). However, they used scanning at an extensive level ($\bar{X}=3.61$).

Similarly, the students with English learning experience of 8-12 years used seven strategies at a medium level including skimming ($\bar{X}=3.38$), schema ($\bar{X}=3.42$), identifying main idea and supporting details ($\bar{X}=3.32$), using grammatical clues ($\bar{X}=3.01$), using word parts ($\bar{X}=2.82$), using context clues ($\bar{X}=3.27$), and making inference ($\bar{X}=3.34$). However, they also used scanning at an extensive level ($\bar{X}=3.81$).

Unlike the prior two groups, the students with English learning experience of more than 12 years used four strategies at an extensive level including scanning ($\bar{X}=3.86$), skimming ($\bar{X}=3.55$), schema ($\bar{X}=3.61$), and making inference ($\bar{X}=3.64$). However, they also used four strategies at a medium level. These were identifying main idea and supporting details ($\bar{X}=3.46$), using grammatical clues ($\bar{X}=3.31$), using word parts ($\bar{X}=3.25$), using context clues ($\bar{X}=3.47$).

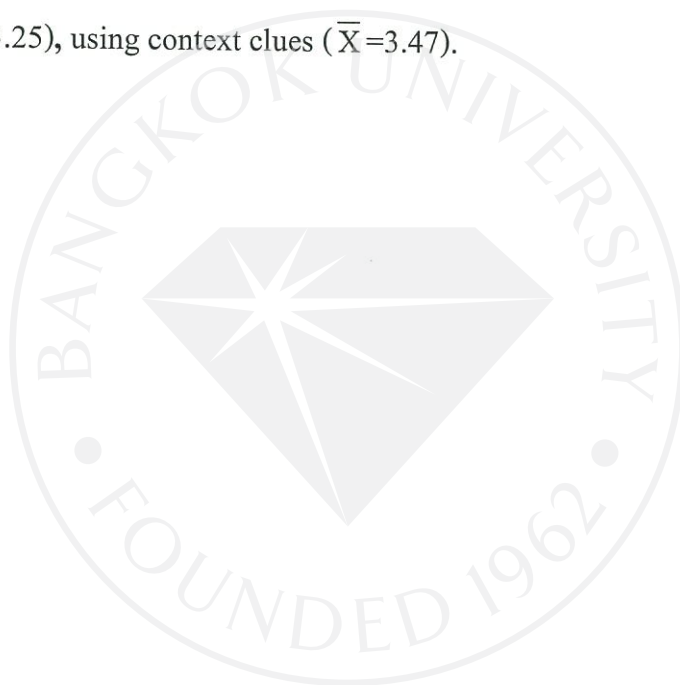


Table 18 Mean and Standard Deviation of the Use of Reading Strategy of Bangkok University Students Classified by Reading Behavior Outside Class

Reading Strategy	Often		Sometimes		Never		Total	
	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
1. Scanning	3.90	.75	3.82	.58	3.89	.75	3.84	.61
2. Skimming	3.71	.69	3.48	.57	3.35	.70	3.49	.59
3. Schema	3.94	.72	3.51	.69	3.43	.82	3.54	.71
4. Identifying main idea and supporting details	3.87	.67	3.38	.62	3.27	.53	3.42	.63
5. Using grammatical clues	3.82	.85	3.19	.74	2.78	.66	3.21	.77
6. Using word parts	3.78	1.13	3.08	.88	2.84	.90	3.12	.93
7. Using context clues	3.91	.83	3.38	.64	3.11	.65	3.41	.68
8. Making inference	3.97	.78	3.51	.79	3.50	.83	3.55	.80
Total	3.86	.60	3.42	.46	3.27	.47	3.45	.49

Table 18 illustrates that the students who (often, sometimes, and never) read outside class had different levels of strategy usage. That is, the students who often read outside class had an extensive level of strategy usage ($\bar{X}=3.86$) while the students who sometimes and never read outside class had a medium level of strategy usage ($\bar{X}=3.42$ and $\bar{X}=3.27$).

When considering the use of all strategies, it was found that the students who often read outside class used all eight strategies at an extensive level.

The students who sometimes read outside class used three strategies at an extensive level including scanning ($\bar{X}=3.82$), schema ($\bar{X}=3.51$) and making inference ($\bar{X}=3.51$). However, they used five strategies at a medium level. These included skimming ($\bar{X}=3.48$), identifying main idea and supporting details ($\bar{X}=3.38$), using grammatical clues ($\bar{X}=3.19$), using word parts ($\bar{X}=3.08$), and using context clues ($\bar{X}=3.38$).

The students who never read outside class used two strategies at an extensive level including scanning ($\bar{X}=3.89$) and making inference ($\bar{X}=3.50$). However, they used six strategies at a medium level. These included skimming ($\bar{X}=3.35$), schema ($\bar{X}=3.43$), identifying main idea and supporting details ($\bar{X}=3.27$), using grammatical clues ($\bar{X}=2.78$), using word parts ($\bar{X}=2.84$), and using context clues ($\bar{X}=3.11$).

Part 3: The Comparison of the Use of Reading Strategies Classified by Students' Background Information

To conduct the comparison, a statistical procedure was used. The students' mean scores were analyzed by means of t-test and One-way ANOVA.

Table 19 A Comparison of the Use of Reading Strategy of Bangkok University Students Classified by Gender.

Reading Strategy	Variable		n	\bar{X}	S.D.	t	Sig
1. Scanning	gender	male	157	3.83	.61	-.123	.90
		female	213	3.84	.62		
2. Skimming	gender	male	157	3.56	.60	1.84	.07
		female	213	3.45	.58		
3. Schema	gender	male	157	3.60	.65	1.38	.17
		female	213	3.50	.75		
4. Identifying main idea and supporting details	gender	male	157	3.40	.62	-.49	.62
		female	213	3.43	.64		
5. Using grammatical clues	gender	male	157	3.19	.74	-.43	.67
		female	213	3.23	.79		
6. Using word parts	gender	male	157	3.15	.90	.47	.64
		female	213	3.10	.95		
7. Using context clues	gender	male	157	3.37	.65	-.96	.34
		female	213	3.44	.70		
8. Making inference	gender	male	157	3.57	.79	.32	.75
		female	213	3.54	.81		
Total	gender	male	157	3.46	.48	.35	.72
		female	213	3.44	.51		

Table 19 shows the results obtained from the application of a t-test. It was found that there was no statistically significant difference between male and female students in the overall strategy usage and in each strategy at the level of .05.



Table 20 A Comparison of the Use of Reading Strategy of Bangkok University

Students Classified by Group of Achievers.

Reading Strategy	Variable		n	\bar{X}	S.D.	t	Sig
1. Scanning	group	low	89	3.87	.62	-.66	.51
		high	43	3.94	.59		
2. Skimming	group	low	89	3.47	.54	-2.44	.02*
		high	43	3.72	.61		
3. Schema	group	low	89	3.51	.70	-2.62	.01*
		high	43	3.85	.69		
4. Identifying main idea and supporting details	group	low	89	3.29	.59	-4.24	.00*
		high	43	3.76	.65		
5. Using grammatical clues	group	low	89	2.96	.69	-5.16	.00*
		high	43	3.62	.71		
6. Using word parts	group	low	89	2.79	.88	-4.87	.00*
		high	43	3.60	.94		
7. Using context clues	group	low	89	3.26	.63	-3.40	.00*
		high	43	3.67	.71		
8. Making inference	group	low	89	3.44	.83	-2.00	.05
		high	43	3.70	.63		
Total	group	low	89	3.32	.38	-4.44	.00*
		high	43	3.73	.55		

*p<.05

Table 20 presents the results obtained from the application of a paired t-test. It was found that there was a statistically significant difference between two groups of achievers (low and high) in the overall strategy usage at the level of .05. In general, the mean of the high achiever group was higher than that of the low achiever group.

It was also found that there were statistically significant differences in the students' strategy usage in six strategies at the level of .05. These were skimming, schema, identifying main idea and supporting details, using grammatical clues, using word parts, and using context clues. However, there was no statistically significant difference found between two groups in terms of two strategies (scanning and making inference).

Table 21 Analysis of Variance of the Use of Reading Strategy of Bangkok University

Students in Terms of Strategy Classified by Faculty

Reading strategy	Variance	df	SS	MS	F	Sig
1. Scanning	Within group	8	12.11	1.51	4.36	.00*
	Between group	361	125.31	.35		
	Total	369	137.42			
2. Skimming	Within group	8	17.42	2.18	6.95	.00*
	Between group	361	113.07	.31		
	Total	369	130.49			
3. Schema	Within group	8	28.47	3.56	8.14	.00*
	Between group	361	157.86	.44		
	Total	369	186.33			
4. Identifying main idea and supporting details	Within group	8	22.30	2.91	8.42	.00*
	Between group	361	124.83	.35		
	Total	369	148.12			
5. Using grammatical clues	Within group	8	34.33	4.29	8.36	.00*
	Between group	361	185.37	.51		
	Total	369	219.70			
6. Using word parts	Within group	8	48.26	6.03	8.12	.00*
	Between group	361	268.24	.75		
	Total	369	316.50			
7. Using context clues	Within group	8	27.73	3.47	8.74	.00*
	Between group	361	143.19	.40		
	Total	369	170.92			
8. Making inference	Within group	8	19.63	2.45	4.06	.00*
	Between group	361	217.98	.60		
	Total	369	237.61			
Total	Within group	8	22.64	2.83	15.27	.00*
	Between group	361	66.89	.18		
	Total	369	89.53			

*p<.05

The results, obtained from applying ANOVA presented in table 21, reveal that significant differences among nine faculties were found at the level of .05 in all strategies. That is, the students in Humanities used all reading strategies more frequently than the students in other faculties.

As ANOVA showed significant differences among the nine groups in eight strategies, a Post Hoc test (Scheffe) was further conducted to investigate significant differences in the mean scores among the nine groups of students in each strategy.

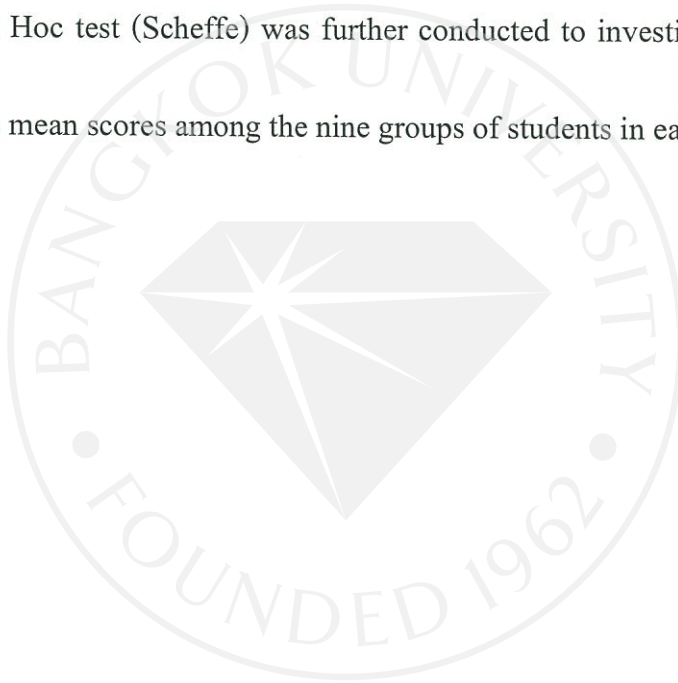


Table 22 The Test of the Mean Scores of the Use of Scanning Classified by Faculty

Faculty	Eco (\bar{X} = 3.58)	Sci (\bar{X} = 3.63)	Engi (\bar{X} = 3.66)	Acc (\bar{X} = 3.77)	Bus (\bar{X} = 3.79)	Com (\bar{X} = 3.84)	Law (\bar{X} = 3.92)	Fine (\bar{X} = 3.95)	Hum (\bar{X} = 4.48)
Eco	(\bar{X} = 3.58)								
Sci	(\bar{X} = 3.63)								
Engi	(\bar{X} = 3.66)								
Acc	(\bar{X} = 3.77)								
Bus	(\bar{X} = 3.79)								
Com	(\bar{X} = 3.84)								
Law	(\bar{X} = 3.92)								
Fine	(\bar{X} = 3.95)	*							
Hum	(\bar{X} = 4.48)	*	*	*	*	*	*	*	

*p<.05

According to table 22, Post Hoc (Scheffe) analysis reveals that the scanning usage of Humanities students was different from that of the rest eight faculties at the significance level of .05. The mean of strategy usage of Humanities students was higher than those of students in eight faculties. That is, every faculties used scanning at an extensive level but Humanities used this strategy most frequently.

In addition, it was found that the strategy usage of Fine and Applied Arts students was different from that of Science and Technology students at the significance level of .05, and its mean was higher than that of Science and Technology students. That is, Fine and Applied Arts students used scanning more frequently than Science and Technology students.

Table 23 The Test of the Mean Scores of the Use of Skimming Classified by Faculty

Faculty	Sci (\bar{X} = 3.20)	Law (\bar{X} = 3.32)	Eco (\bar{X} = 3.33)	Bus (\bar{X} = 3.43)	Acc (\bar{X} = 3.44)	Com (\bar{X} = 3.52)	Engi (\bar{X} = 3.58)	Fine (\bar{X} = 3.59)	Hum (\bar{X} = 4.27)
Sci	(\bar{X} = 3.20)								
Law	(\bar{X} = 3.32)								
Eco	(\bar{X} = 3.33)								
Bus	(\bar{X} = 3.43)	*							
Acc	(\bar{X} = 3.44)	*							
Com	(\bar{X} = 3.52)	*							
Engi	(\bar{X} = 3.58)	*							
Fine	(\bar{X} = 3.59)	*							
Hum	(\bar{X} = 4.27)	*	*	*	*	*	*	*	*

* $p < .05$

Table 23 shows that the students from Science and Technology had statistically significant difference in the use of skimming from the students from the faculty of Business Administration, Accounting, Communication Arts, Engineering, and Fine and Applied Arts at the level of .05, and its mean was lower than those of students in faculty of Business Administration, Accounting, Communication Arts, Engineering, and Fine and Applied Arts. That is, the students from Science and Technology used skimming less frequently than the students from Business Administration, Accounting, Communication Arts, Engineering, and Fine and Applied Arts.

In addition, the use of reading strategy in terms of skimming of the students from Humanities was different and had greater score than those of the students from eight faculties at the significance level of .05. That is, among nine faculties, the students from Humanities used skimming most frequently.

Table 24 The Test of the Mean Scores of the Use of Schema Classified by Faculty.

Faculty	Eco (\bar{X} =3.07)	Sci (\bar{X} =3.21)	Acc (\bar{X} =3.38)	Com (\bar{X} =3.50)	Engi (\bar{X} =3.51)	Law (\bar{X} =3.51)	Bus (\bar{X} =3.62)	Fine (\bar{X} =3.79)	Hum (\bar{X} =4.48)
Eco	(\bar{X} = 3.07)								
Sci	(\bar{X} = 3.21)								
Acc	(\bar{X} = 3.38)								
Com	(\bar{X} = 3.50)	*							
Engi	(\bar{X} = 3.51)								
Law	(\bar{X} = 3.51)								
Bus	(\bar{X} = 3.62)	*	*	*					
Fine	(\bar{X} = 3.79)	*	*	*	*				
Hum	(\bar{X} = 4.48)	*	*	*	*	*	*	*	*

*p<.05

Table 24 shows that Communication Arts students used schema differently from Science and Technology students at the significance level of .05, and its mean was higher than that of Science and Technology students which meant that Communication Arts students used schema more frequently than Science and Technology students.

The use of schema of the students from Humanities was different and had greater score than that of the eight faculties at the significance level of .05.

In addition, the use of schema of Fine and Applied Arts students had statistically significant difference from that of the students from the faculty of Accounting, Science and Technology, Communication Arts, and Economics. The mean of Fine and Applied Arts students was higher than those of students in four faculties which meant that Fine and Applied Arts students used schema more frequently than the students in Accounting, Science and Technology, Communication Arts, and Economics.

The use of schema of Business Administration students had statistically significant difference from that of the students from the faculty of Accounting, Science and Technology, and Economics. The mean of the use of schema of Business Administration students was higher than those of the students in three faculties. That is, among four faculties, Business Administration students used schema most frequently.

Table 25 The Test of the Mean Scores of the Use of Identifying Main Idea and Supporting Details Classified by Faculty

Faculty	Sci (\bar{X} = 3.06)	Eco (\bar{X} = 3.19)	Law (\bar{X} = 3.33)	Acc (\bar{X} = 3.35)	Com (\bar{X} = 3.39)	Fine (\bar{X} = 3.40)	Bus (\bar{X} = 3.48)	Engi (\bar{X} = 3.50)	Hum (\bar{X} = 4.33)
Sci	(\bar{X} = 3.06)								
Eco	(\bar{X} = 3.19)								
Law	(\bar{X} = 3.33)								
Acc	(\bar{X} = 3.35)	*							
Com	(\bar{X} = 3.39)	*							
Fine	(\bar{X} = 3.40)	*							
Bus	(\bar{X} = 3.48)	*							
Engi	(\bar{X} = 3.50)	*							
Hum	(\bar{X} = 4.33)	*	*	*	*	*	*	*	

* $p < .05$

Table 25 shows that the use of reading strategy in terms of identifying main idea and supporting details of Science and Technology students had statistically significant difference from that of the students from the faculty of Accounting, Communication Arts, Fine and Applied Arts, Business Administration, and Engineering. The mean of strategy usage of Science and Technology students was lower than those of students in five faculties. That is, among six faculties, Science and Technology students used this strategy least frequently.

In addition, the use of reading strategy in this strategy of the students from Humanities had statistically significant difference from that of the students from eight faculties at the level of .05, and its mean was higher than those of students in eight faculties which meant that the students from Humanities used this strategy most frequently.

Table 26 The Test of the Mean Scores of Using Grammatical Clues Classified by Faculty

Faculty	Acc (\bar{X} = 3.02)	Com (\bar{X} = 3.06)	Eco (\bar{X} = 3.07)	Sci (\bar{X} = 3.13)	Bus (\bar{X} = 3.19)	Fine (\bar{X} = 3.34)	Law (\bar{X} = 3.38)	Engi (\bar{X} = 3.38)	Hum (\bar{X} = 4.36)
Acc	(\bar{X} = 3.02)								
Com	(\bar{X} = 3.06)								
Eco	(\bar{X} = 3.07)								
Sci	(\bar{X} = 3.13)								
Bus	(\bar{X} = 3.19)								
Fine	(\bar{X} = 3.34)	*							
Law	(\bar{X} = 3.38)	*							
Engi	(\bar{X} = 3.38)								
Hum	(\bar{X} = 4.36)	*	*	*	*	*	*	*	

*p<.05

Table 26 shows that the use of grammatical clues of the students from Accounting had statistically significant difference from that of the students from the faculty of Law and Fine and Applied Arts, and its mean was lower than those of the students in the faculty of Law and Fine and Applied Arts. That is, students from Accounting used grammatical clues less frequently than the students in the faculty of Law and Fine and Applied Arts.

In addition, the use of grammatical clues of the students from Humanities had greater score and statistically significant difference from that of the students from eight faculties at the level of .05. That is, the students from Humanities used this strategy most frequently when compared to other eight faculties.

Table 27 The Test of the Mean Scores of Using Word Parts Classified by Faculty

Faculty	Acc (\bar{X} = 2.84)	Sci (\bar{X} = 2.89)	Law (\bar{X} = 2.95)	Com (\bar{X} = 3.07)	Eco (\bar{X} = 3.11)	Bus (\bar{X} = 3.11)	Fine (\bar{X} = 3.22)	Engi (\bar{X} = 3.48)	Hum (\bar{X} = 4.48)
Acc	(\bar{X} = 2.84)								
Sci	(\bar{X} = 2.89)								
Law	(\bar{X} = 2.95)								
Com	(\bar{X} = 3.07)								
Eco	(\bar{X} = 3.11)								
Bus	(\bar{X} = 3.11)								
Fine	(\bar{X} = 3.22)	*							
Engi	(\bar{X} = 3.48)	*	*						
Hum	(\bar{X} = 4.48)	*	*	*	*	*	*	*	*

* $p < .05$

Table 27 indicates that using word parts of the Accounting students was different from that of the students from Fine and Applied Arts at the significance level of .05, and the mean of using word parts of the Accounting students was lower than that of the students from Fine and Applied Arts. That is, Accounting students used word parts less frequently than the students from Fine and Applied Arts.

In addition, Engineering students used this strategy differently from the students of the faculty of Accounting and Science and Technology. The mean of using word parts of Engineering students was higher than that of the students from the faculty of Accounting and Science and Technology which meant that Engineering students used word parts more frequently than the students from the faculty of Accounting and Science and Technology.

Humanities students had statistically significant differences in the use of word parts from the students from eight faculties. The mean of using this strategy of Humanities students was also higher than those of the students from eight faculties. That is, Humanities students used word parts more frequently than the rest eight faculties.

Table 28 The Test of the Mean Scores of Using Context Clues Classified by Faculty

Faculty	Sci (\bar{X} = 2.99)	Eco (\bar{X} = 3.22)	Acc (\bar{X} = 3.25)	Bus (\bar{X} = 3.40)	Com (\bar{X} = 3.41)	Fine (\bar{X} = 3.43)	Engi (\bar{X} = 3.48)	Law (\bar{X} = 3.59)	Hum (\bar{X} = 4.36)
Sci	(\bar{X} = 2.99)								
Eco	(\bar{X} = 3.22)								
Acc	(\bar{X} = 3.25)								
Bus	(\bar{X} = 3.40)	*							
Com	(\bar{X} = 3.41)	*							
Fine	(\bar{X} = 3.43)	*							
Engi	(\bar{X} = 3.48)	*							
Law	(\bar{X} = 3.59)	*	*						
Hum	(\bar{X} = 4.36)	*	*	*	*	*	*	*	

* $p < .05$

Table 28 illustrates that the use of context clues of Law students was different at the significance level of .05 from that of the students from Accounting. The mean of the use of context clues of Law students was higher than those of the students in Accounting. That is, Law students used context clues more frequently than the students in Accounting.

The use of context clues of the students from Science and Technology had statistically significant difference from that of the students from the faculty of Business Administration, Communication Arts, Fine and Applied Arts, Engineering, and Law. The mean of the use of this strategy of Science and Technology students was higher than those of the students in four faculties which meant that the students from Science and Technology used this strategy most frequently when compared to the faculty of Business Administration, Communication Arts, Fine and Applied Arts, Engineering, and Law.

In addition, the use of context clues of the Humanities students had statistically significant difference from eight faculties and had greater score than that of the eight faculties at the significance level of .05. That is, the Humanities students used this strategy most frequently among nine faculties.

Table 29 The Test of the Mean Scores of the Use of Making Inference Classified by Faculty

Faculty	Acc (\bar{X} = 3.27)	Eco (\bar{X} = 3.35)	Engi (\bar{X} = 3.45)	Bus (\bar{X} = 3.47)	Law (\bar{X} = 3.51)	Fine (\bar{X} = 3.57)	Com (\bar{X} = 3.60)	Sci (\bar{X} = 3.62)	Hum (\bar{X} = 4.35)
Acc	(\bar{X} = 3.27)								
Eco	(\bar{X} = 3.35)								
Engi	(\bar{X} = 3.45)								
Bus	(\bar{X} = 3.47)								
Law	(\bar{X} = 3.51)								
Fine	(\bar{X} = 3.57)								
Com	(\bar{X} = 3.60)	*							
Sci	(\bar{X} = 3.62)	*							
Hum	(\bar{X} = 4.35)	*	*	*	*	*	*	*	

*p<.05

Table 29 shows that the use of making inference of Accounting students was statistically significant different at the level of .05 from that of the students from the faculty of Science and Technology and Communication Arts. The mean of the use of making inference of Accounting students was lower than those of the students in Science and Technology and Communication Arts. That is, Accounting students used making inference less frequently than the students in Science and Technology and Communication Arts.

In addition, the use of making inference of Humanities students had statistically significant difference from eight faculties and had greater score than those of the eight faculties which meant that Humanities students used this strategy more frequently than the students in the rest eight faculties.

Table 30 The Test of the Mean Scores of the Use of Overall Strategy Usage Classified by Faculty

Faculty	Sci (\bar{X} = 3.22)	Eco (\bar{X} = 3.24)	Acc (\bar{X} = 3.29)	Com (\bar{X} = 3.43)	Bus (\bar{X} = 3.44)	Law (\bar{X} = 3.44)	Engi (\bar{X} = 3.50)	Fine (\bar{X} = 3.54)	Hum (\bar{X} = 4.39)
Sci	(\bar{X} = 3.22)								
Eco	(\bar{X} = 3.24)								
Acc	(\bar{X} = 3.29)								
Com	(\bar{X} = 3.43)	*							
Bus	(\bar{X} = 3.44)	*							
Law	(\bar{X} = 3.44)								
Engi	(\bar{X} = 3.50)	*							
Fine	(\bar{X} = 3.54)	*	*						
Hum	(\bar{X} = 4.39)	*	*	*	*	*	*	*	

* $p < .05$

Table 30 shows that the overall use of reading strategies of Accounting students had statistically significant difference from that of Fine and Applied Arts students at .05 level, and the mean of the overall use of reading strategies of Accounting students was lower than that of Fine and Applied Arts students. That is, Accounting students used overall strategy less frequently than Fine and Applied Arts students.

It also presents that the overall use of reading strategies of Science and Technology students had statistically significant differences with that of the students from Communication Arts, Engineering, Fine and Applied Arts, and Business Administration. The mean of the overall use of reading strategies of Science and Technology students was lower than those of the students in four faculties which meant that Science and Technology students used overall strategy less frequently than the students in Communication Arts, Engineering, Fine and Applied Arts, and Business Administration.

Furthermore, the overall use of reading strategies of Humanities students had statistically significant differences with that of the students from the eight faculties at .05 level, and the mean of the overall use of reading strategies of Humanities students was also higher than that of the students from the eight faculties. That is, Humanities students used overall strategy most frequently while the students in Science and Technology used overall strategy least frequently.

Table 31 Analysis of Variance of the Use of Reading Strategy Classified by English learning experience

Reading strategy	Variance	df	SS	MS	F	Sig
1. Scanning	Within group	2	.88	.44	1.19	.30
	Between group	367	136.54	.37		
	Total	369	137.42			
2. Skimming	Within group	2	3.04	1.52	4.38	.01*
	Between group	367	127.45	.35		
	Total	369	130.49			
3. Schema	Within group	2	4.22	2.11	4.25	.01*
	Between group	367	182.12	.50		
	Total	369	186.33			
4. Identifying main idea and supporting details	Within group	2	1.53	.76	1.92	.15
	Between group	367	146.59	.40		
	Total	369	148.12			
5. Using grammatical clues	Within group	2	9.63	4.82	8.41	.00*
	Between group	367	210.07	.57		
	Total	369	219.70			
6. Using word parts	Within group	2	14.34	7.17	8.71	.00*
	Between group	367	302.16	.82		
	Total	369	316.50			
7. Using context clues	Within group	2	4.58	2.29	5.06	.01*
	Between group	367	166.34	.45		
	Total	369	170.92			
8. Making inference	Within group	2	7.96	3.98	6.36	.00*
	Between group	367	229.65	.63		
	Total	369	237.61			
Total	Within group	2	4.80	2.40	10.40	.00*
	Between group	367	84.73	.23		
	Total	369	89.53			

*p<.05

Table 31 shows that the students who had different English learning experience (less than 8 years, 8-12 years, more than 12 years) employed overall reading strategies at the level of significance of .05. Every reading strategy had statistically significant differences except scanning and identifying main idea and supporting details.

When statistically significant differences were found, Scheffe was used to test a statistically significant difference between the mean scores of the use of reading strategy of each pair as shown in table 32-38.

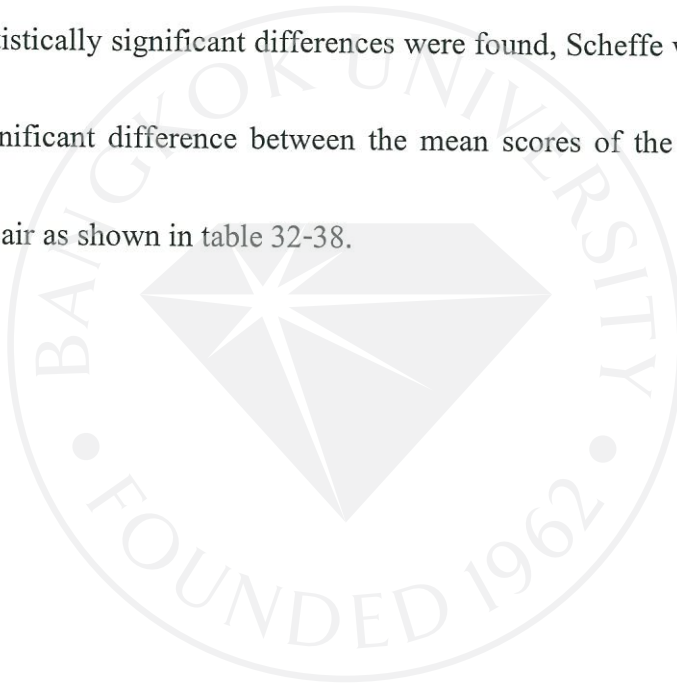


Table 32 The Test of the Mean Scores of the Use of Skimming Classified by English Learning Experience.

English Learning Experience	Less than 8 years ($\bar{X}=3.21$)	8-12 years ($\bar{X}=3.38$)	More than 12 Years ($\bar{X}=3.55$)
Less than 8 years ($\bar{X}=3.21$)			
8-12 years ($\bar{X}=3.38$)			
More than 12 years ($\bar{X}=3.55$)	*	*	

* $p<.05$

Table 32 shows that students with English learning experience of more than 12 years employed skimming strategy differently from those with English learning experience of less than 8 years and 8-12 years at the significance level of .05.

In addition, the mean of using this strategy of the students with English learning experience of more than 12 years was higher than those of the students with English learning experience of less than 8 years and 8-12 years. That is, the students with English learning experience of more than 12 years used skimming more frequently than the students with English learning experience of less than 8 years and 8-12 years.

Table 33 The Test of the Mean Scores of the Use of Schema Classified by English Learning Experience.

English Learning Experience	Less than 8 years ($\bar{X}=3.20$)	8-12 years ($\bar{X}=3.42$)	More than 12 Years ($\bar{X}=3.61$)
Less than 8 years ($\bar{X}=3.20$)			
8-12 years ($\bar{X}=3.42$)			
More than 12 years ($\bar{X}=3.61$)	*	*	

*p<.05

Table 33 shows that students with English learning experience of more than 12 years employed schema strategy differently from those with English learning experience of less than 8 years and 8-12 years at the significance level of .05.

In addition, the mean of using this strategy of the students with English learning experience of more than 12 years was higher than those of the students with English learning experience of less than 8 years and 8-12 years. That is, the students with English learning experience of more than 12 years used schema more frequently than the students with English learning experience of less than 8 years and 8-12 years.

Table 34 The Test of the Mean Scores of the Use of Using Grammatical Clues
Classified by English Learning Experience

English Learning Experience	Less than 8 years ($\bar{X}=2.72$)	8-12 years ($\bar{X}=3.01$)	More than 12 Years ($\bar{X}=3.31$)
Less than 8 years ($\bar{X}=2.72$)			
8-12 years ($\bar{X}=3.01$)			
More than 12 years ($\bar{X}=3.31$)	*	*	

*p<.05

Table 34 shows that students with English learning experience of more than 12 years employed using grammatical clues strategy differently from those with English learning experience of less than 8 years and 8-12 years at the level of .05.

In addition, the mean of using this strategy of the students with English learning experience of more than 12 years was higher than those of the students with English learning experience of less than 8 years and 8-12 years. That is, the students with English learning experience of more than 12 years used grammatical clues more frequently than the students with English learning experience of less than 8 years and 8-12 years.

Table 35 The Test of the Mean Scores of the Use of Using Word Parts Classified by English Learning Experience.

English Learning Experience	Less than 8 years ($\bar{X}=2.76$)	8-12 years ($\bar{X}=2.82$)	More than 12 Years ($\bar{X}=3.25$)
Less than 8 years ($\bar{X}=2.76$)			
8-12 years ($\bar{X}=2.82$)			
More than 12 years ($\bar{X}=3.25$)			*

* $p<.05$

According to Table 35, when the Scheffe test was applied, it was found that students with English learning experience of 8-12 years employed strategy of using word parts differently from those with English learning experience of more than 12 years at the significance level of .05. The mean of using this strategy of the students with English learning experience of 8-12 years was lower than that of the students with English learning experience of more than 12 years. That is, the students with English learning experience of more than 12 years used word parts more frequently than the students with English learning experience of 8-12 years.

Table 36 The Test of the Mean Scores of Using Context Clues Classified by English Learning Experience.

English Learning Experience	Less than 8 years ($\bar{X}=3.05$)	8-12 years ($\bar{X}=3.27$)	More than 12 Years ($\bar{X}=3.47$)
Less than 8 years ($\bar{X}=3.05$)			
8-12 years ($\bar{X}=3.27$)			
More than 12 years ($\bar{X}=3.47$)	*	*	

*p<.05

Table 36 indicates that students with English learning experience of more than 12 years employed strategy of using context clues differently from those with English learning experience of less than 8 years and 8-12 years at the significance level of .05.

In addition, the mean of using this strategy of the students with English learning experience of more than 12 years was higher than those of the students with English learning experience of less than 8 years and 8-12 years. That is, the students with English learning experience of more than 12 years used context clues more frequently than the students with English learning experience of less than 8 years and 8-12 years.

Table 37 The Test of the Mean Scores of the Use of Making Inference Classified by English Learning Experience

English Learning Experience	Less than 8 years ($\bar{X}=3.20$)	8-12 years ($\bar{X}=3.34$)	More than 12 Years ($\bar{X}=3.64$)
Less than 8 years ($\bar{X}=3.20$)			
8-12 years ($\bar{X}=3.34$)			
More than 12 years ($\bar{X}=3.64$)	*	*	

* $p < .05$

According to table 37, when the Scheffe test was applied, it was found that the students with English learning experience of more than 12 years employed strategy of making inference differently from those with English learning experience of less than 8 years and 8-12 years at the significance level of .05.

Furthermore, the mean of using this strategy of the students with English learning experience of more than 12 years was higher than those of the students with English learning experience of less than 8 years and 8-12 years. That is, the students with English learning experience of more than 12 years used making inference more frequently than the students with English learning experience of less than 8 years and 8-12 years.

Table 38 The Test of the Mean Scores of the Overall Use of Reading Strategy
Classified by English Learning Experience

English Learning Experience	Less than 8 years ($\bar{X}=3.13$)	8-12 years ($\bar{X}=3.30$)	More than 12 Years ($\bar{X}=3.52$)
Less than 8 years ($\bar{X}=3.13$)			
8-12 years ($\bar{X}=3.30$)			
More than 12 years ($\bar{X}=3.52$)	*	*	

* $p<.05$

Table 38 shows that students with English learning experience of more than 12 years employed overall strategy differently from those with English learning experience of less than 8 years and 8-12 years at the significance level of .05.

Furthermore, the mean of using this strategy of the students with English learning experience of more than 12 years was higher than those of the students with English learning experience of less than 8 years and 8-12 years. That is, the students with English learning experience of more than 12 years used overall reading strategies more frequently than the students with English learning experience of less than 8 years and 8-12 years.

Table 39 Analysis of Variance of the Use of Reading Strategy Classified by Reading Behavior Outside Class.

Reading strategy	Variance	df	SS	MS	F	Sig
1. Scanning	Within group	2	.26	.13	.35	.70
	Between group	367	137.16	.37		
	Total	369	137.42			
2. Skimming	Within group	2	2.14	1.07	3.06	.05
	Between group	367	128.35	.35		
	Total	369	130.49			
3. Schema	Within group	2	5.75	2.88	5.85	.00*
	Between group	367	180.58	.49		
	Total	369	186.33			
4. Identifying main idea and supporting details	Within group	2	7.37	3.68	9.61	.00*
	Between group	367	140.76	.38		
	Total	369	148.12			
5. Using grammatical clues	Within group	2	17.32	8.66	15.70	.00*
	Between group	367	202.38	.55		
	Total	369	219.70			
6. Using word parts	Within group	2	16.69	8.35	10.22	.00*
	Between group	367	299.81	.82		
	Total	369	316.50			
7. Using context clues	Within group	2	10.73	5.36	12.29	.00*
	Between group	367	160.19	.44		
	Total	369	170.92			
8. Making inference	Within group	2	6.13	3.06	4.86	.01*
	Between group	367	231.48	.63		
	Total	369	237.61			
Total	Within group	2	6.59	3.29	14.57	.00*
	Between group	367	82.94	.23		
	Total	369	89.53			

*p<.05

Table 39 shows that the students who had different reading behavior outside class (often, sometimes, and never) employed overall reading strategies at the level of significance at .05. Every reading strategy had statistically significant differences except scanning and skimming.

When statistically significant differences were found, Scheffe test was used to test a statistically significant difference between the mean scores of the use of reading strategy of each pair as shown in table 40-46.

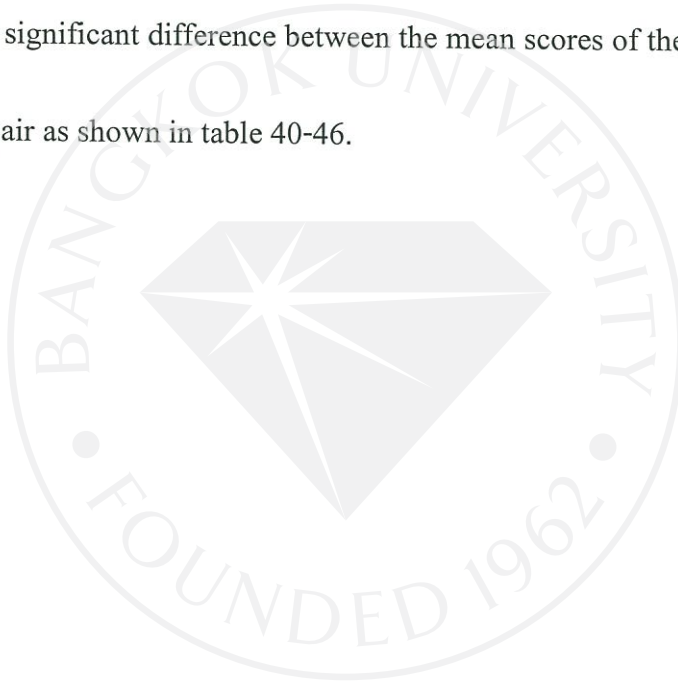


Table 40 The Test of the Mean Scores of the Use of Schema Classified by Reading Behavior Outside Class

Reading Behavior Outside Class		Often	Sometimes	Never
		($\bar{X}=3.94$)	($\bar{X}=3.51$)	($\bar{X}=3.43$)
Often	($\bar{X}=3.94$)			
Sometimes	($\bar{X}=3.51$)	*		
Never	($\bar{X}=3.43$)	*		

*p<.05

Table 40 shows that students who often read outside class employed schema strategy differently from those who sometimes and never read outside class at the significance level of .05, and the mean of strategy usage of the students who often read outside class was higher than those of students who sometimes and never read outside class. That is, the students who often read outside class used schema more frequently than the students who sometimes and never read outside class.

Table 41 The Test of the Mean Scores of the Use of Identifying Main Idea and Supporting Details Classified by Reading Behavior Outside Class

Reading Behavior Outside Class		Often	Sometimes	Never
		($\bar{X}=3.87$)	($\bar{X}=3.38$)	($\bar{X}=3.27$)
Often	($\bar{X}=3.87$)			
Sometimes	($\bar{X}=3.38$)	*		
Never	($\bar{X}=3.27$)	*		

*p<.05

Table 41 shows that students who often read outside class employed strategy of identifying main idea and supporting details differently from those who sometimes and never read outside class at the level of .05, and the mean of strategy usage of the students who often read outside class was higher than those of students who sometimes and never read outside class. That is, the students who often read outside class used identifying main idea and supporting details more frequently than the students who sometimes and never read outside class.

Table 42 The Test of the Mean Scores of Using Grammatical Clues Classified by Reading Behavior Outside Class

Reading Behavior Outside Class		Often	Sometimes	Never
		($\bar{X}=3.82$)	($\bar{X}=3.19$)	($\bar{X}=2.78$)
Often	($\bar{X}=3.82$)			
Sometimes	($\bar{X}=3.19$)	*		
Never	($\bar{X}=2.78$)	*	*	

* $p<.05$

Table 42 shows that students who often read outside class employed strategy of using grammatical clues differently from those who sometimes and never read outside class at the significance level of .05, and the mean of strategy usage of the students who often read outside class was higher than those of students who sometimes and never read outside class. That is, the students who often read outside class used grammatical clues more frequently than the students who sometimes and never read outside class.

It was also found that students who sometimes read outside class used this strategy differently from those who never read outside class. The mean of using this strategy of the students who sometimes read outside class was lower than that of the students who never read outside class. That is, the students who sometimes read outside class used grammatical clues more frequently than the students who never read outside class.

Table 43 The Test of the Mean Scores of Using Word Parts Classified by Reading Behavior Outside Class

Reading Behavior Outside Class		Often	Sometimes	Never
		($\bar{X}=3.78$)	($\bar{X}=3.08$)	($\bar{X}=2.84$)
Often	($\bar{X}=3.78$)			
Sometimes	($\bar{X}=3.08$)	*		
Never	($\bar{X}=2.84$)	*		

* $p<.05$

Table 43 shows that students who often read outside class employed strategy of using word parts differently from those who sometimes and never read outside class at the significance level of .05, and the mean of strategy usage of the students who often read outside class was higher than those of students who sometimes and never read outside class. That is, the students who often read outside class used word parts more frequently than the students who sometimes and never read outside class.

Table 44 The Test of the Mean Scores of Using Context Clues Classified by Reading Behavior Outside Class

Reading Behavior Outside Class		Often	Sometimes	Never
		($\bar{X}=3.91$)	($\bar{X}=3.38$)	($\bar{X}=3.11$)
Often	($\bar{X}=3.91$)			
Sometimes	($\bar{X}=3.38$)	*		
Never	($\bar{X}=3.11$)	*	*	

* $p<.05$

Table 44 shows that students who often read outside class employed strategy of using context clues differently from those who sometimes and never read outside class at the significance level of .05, and the mean of strategy usage of the students who often read outside class was higher than those of students who sometimes and never read outside class. That is, the students who often read outside class used context clues more frequently than the students who sometimes and never read outside class.

Moreover, students who sometimes read outside class used this strategy differently from those who never read outside class. The mean of using this strategy of the students who sometimes read outside class was higher than that of the students who never read outside class. That is, the students who sometimes read outside class used context clues more frequently than the students who never read outside class.

Table 45 The Test of the Mean Scores of the Use of Making Inference Classified by Reading Behavior Outside Class

Reading Behavior Outside Class		Often	Sometimes	Never
		($\bar{X}=3.97$)	($\bar{X}=3.51$)	($\bar{X}=3.50$)
Often	($\bar{X}=3.97$)			
Sometimes	($\bar{X}=3.51$)	*		
Never	($\bar{X}=3.50$)	*		

*p<.05

Table 45 shows that students who often read outside class employed strategy of making inference differently from those who sometimes and never read outside class at the significance level of .05, and the mean of strategy usage of the students who often read outside class was higher than those of students who sometimes and never read outside class. That is, the students who often read outside class used making inference more frequently than the students who sometimes and never read outside class.

Table 46 The Test of the Mean Scores of the Overall Use of Reading Strategy
Classified by Reading Behavior Outside Class

Reading Behavior Outside Class		Often	Sometimes	Never
		($\bar{X}=3.86$)	($\bar{X}=3.42$)	($\bar{X}=3.27$)
Often	($\bar{X}=3.86$)			
Sometimes	($\bar{X}=3.42$)	*		
Never	($\bar{X}=3.27$)	*		

* $p<.05$

Table 46 shows that students who often read outside class employed overall strategy differently from those who sometimes and never read outside class at the level of .05, and the mean of strategy usage of the students who often read outside class was higher than those of students who sometimes and never read outside class.

That is, the students who often read outside class used overall reading strategies more frequently than the students who sometimes and never read outside class.

In addition to the quantitative data, six students with the highest scores and six with the lowest scores were chosen to give their opinion about the use of reading strategies and the reasons why they choose to use those strategies. The questions were as follows:

1. What reading strategies do you use when reading? Why and how often do you use them?
2. What are the advantages of reading strategies you use?
3. What reading strategies do you use when you read the following publications, Why and How?

3.1 newspaper

3.2 journal and magazine

3.3 textbook and academic text

3.4 advertisement

Six high achievers

1. Here are what she says. "I know the importance of reading strategies and I try to use different reading strategies to help me understand the passage better. I am very happy to know that I get high score from this test. Before I read any publications, I will use scanning because I want to know whether what I will read is interesting. I always use skimming when I read newspaper and advertisement because I just want to know the main point of them. Sometimes when I finish reading newspaper, I will practice writing the main idea and summary of those news because this is what I have to do when I have exam. However I know that the knowledge of

grammar will help me to break the sentences, helping to understand the text clearly in spite of not knowing some difficult words. Now I'm trying to review grammar that I don't understand clearly."

2. The second student says accordingly. "As I am an English major student, I have to learn reading strategies because it will help my reading comprehension. Scanning and skimming are some basic strategies I use when I reading any text. When I read newspapers I use skimming and try to identify the main idea from supporting details. In my opinion, I think skimming and identifying main idea and supporting details are rather the same. However, what I usually read is textbooks and academic texts, so I have to use every strategy. I will set the purpose or goal of my reading and use every strategy interchangeably."
3. I like reading strategies because it helps me to understand what I read without using a dictionary very often. I like to apply reading strategies when I read English newspapers because newspapers always use repetition especially vocabulary. I learn a lot of vocabulary from newspaper. As I am majoring in Hotel and Tourism, I have to read a lot of traveling magazines. I have to preview the overall picture and try to scan the magazine very quickly and use skimming with what interests me. In addition, I have to use schema because I try to integrate text with prior knowledge.

In conclusion, reading strategies improve my reading comprehension and I will try to develop them.

4. I usually use identifying main idea and supporting details to understand what I read because I usually distinguish between relevant and irrelevant ideas. So, in my opinion, this strategy is the most important for me. However, I further study that a variety of strategies will help improve comprehension despite we do not have large word power. I am now interested in using word parts and using context clues because I enjoy guessing the unfamiliar words, and these two strategies help me to succeed in unlocking the meaning the difficult words. Now, I try to recognize every strategies when I read every text.

5. I am very happy to know that my score for the test is high. My strategy for doing the test is that I will look at the questions first, then I will go back to scan for specific answers in the passage. However, I use inference strategy for some questions which were not stated clearly in order to figure out what the author means. Most of the time I will use scanning and skimming before other strategies to get the broad picture of what I will read especially newspaper, journal and magazine, and advertisement. In addition, as I have to read English textbooks, I will have to use finding main idea in order to find the main point of the text.

6. I am so proud of my score. I think reading strategy helps me to achieve high score.

No matter what I read, I try to find the main idea of what I am reading by deleting trivial information and summarize them. Furthermore, context clues and the knowledge of grammar – pronoun reference and relative clause - helps me to understand the text better because I can guess the meaning of the sentences better.

However, I will have to practice using a variety of reading strategies because I realize that it is the valuable tool in understanding any text.

Six low achievers

1. I like using scanning in order to preview what the text is about. However, since I don't like English, I will use only a dictionary to look up the meaning of difficult words when I don't understand the text. The reading test is very difficult for me as my English is limited. I used to study word parts like prefix, suffix and root, but I don't find it useful when I read. My strategy is to reread if I don't understand. And most of the time I will translate from English into Thai.
2. I feel negative about English, so I am not interested in reading strategies. Frankly speaking, I hate when the teacher tells me to use context clues and grammar to unlock the difficult words because I don't know what they are. When I read, I like to see the pictures and flip through the whole book to see whether the book is

interesting. However, I read further on in the text in addition to use some basic prefixes and suffixes -un, im, ness, tion- to help me when I face difficult words.

In addition, I usually use my prior knowledge to help me guess the unfamiliar words and help me understand the content better.

3. I always use schema to help me understand the text because background

knowledge about what I am reading is supporting new understanding. When I read newspaper and advertisement, I will use scanning to help me to get the overall picture of what I am reading. My problem is that I don't know much about the reading strategies and I don't know how to apply when facing difficult passages.

4. I know the importance of reading strategies but I can't apply them interchangeably.

Thus, I can't understand the passage thoroughly most of the time. In addition, my word power is rather limited; therefore, I always don't know the meaning of

difficult words. My solution is to consult dictionary. However, I can't bring my

dictionary into exam room, resulting in bad score in the test. I am not surprised

why I got bad score in this test. As you (the researcher) told me I should read a lot

to learn more vocabulary without memorizing and learn word part strategy as the

first priority. I think I should follow that suggestion and then study other strategies

so that it will help me to understand the passage which includes newspaper, journal

and the text better.

5. I think grammar affects my score in addition to limited vocabulary. I usually use scanning, skimming and schema when I read every publications. I think schema is very useful for me because I can guess the meaning of unfamiliar words. I also underline the main point of what I read. However, as the English exam paper of the second year students will focus on how to summarize the text, I think I should learn more about reading strategies especially finding main idea by locating the topic sentence and other key statements so that I can summarize the text, resulting in better score.
6. I know that my score for this test is poor as usual because the test is rather difficult for me. To tell you the truth, I am always against reading strategies. When I read Thai, I can understand without using any reading strategies. So, Why do I have to learn English reading strategies? I will preview what I will read whether the text is interesting but I am not familiar with other reading strategies. However, I think I have to change my attitude to pay attention to how to apply reading strategies to help me understand English more clearly because my friend's score for this test is better than mine since he knows how to apply reading strategies.

Summary of in-dept interview

3.1 High achievers gave an opinion that

3.1.1 they realized the importance of reading strategies which will help them to improve their reading comprehension.

3.1.2 they used particular reading strategies for reading particular publications i.e. using skimming and scanning to read newspaper or using summarizing when reading textbooks.

3.1.3 they practiced using every reading strategies very often and interchangeably.

3.2 Low achievers gave an opinion that

3.2.1 they have known about reading strategies but have not familiar with them so they lack practicing using them.

3.2.2 they had bad attitude towards English and were against reading strategies.

3.2.3 they always used dictionary when facing difficult vocabulary without knowing that reading strategies can help them understand the meaning of unfamiliar vocabulary.

3.2.4 they accepted that their grammar was poor. This was the obstacle to understand some reading strategies which involved grammar such as using grammatical clues and using context clues.

CHAPTER V

CONCLUSION AND DISCUSSION

The main point of interest revealed by the findings in the previous chapter will be discussed in details in this chapter. The organization of presentation will be a summary of the study, discussion of the findings, implication for teaching and learning reading at Bangkok University, and recommendations for further research.

Summary of the study

The purposes of this research were to 1) investigate the use of English reading strategies of second-year students at Bangkok University 2) compare the use of English reading strategies between the low-achievers and high achievers 3) compare the use of English reading strategies of second-year students classified by their gender, faculty, English learning experience, and reading behavior outside class. The instruments used for collecting data were a questionnaire, a reading comprehension test, and an in-depth interview. Proportional stratified random sampling was employed to formulate a sample of 370 students from nine faculties of Bangkok University. The data were statistically analyzed in terms of mean and standard deviation. A t- test analysis was used to find the difference between two groups (male and female students, low and high achievers) on the use of reading strategies. In

addition, One-way Analysis of Variance (ANOVA) was used to compare the use of reading strategies of students with different faculty, English learning experience, and reading behavior outside class. For the in-depth interview, six students with highest scores and six with the lowest scores were randomized through a simple random sampling technique to give their opinions on three questions provided, and the data were collected to assure the results of the study. The findings can be concluded accordingly:

1. The use of reading strategies of second-year students of Bangkok University students.

1.1 The overall use of reading strategies of Bangkok University students was $\bar{X} = 3.45$ which could be interpreted that the students use all strategies moderately. The three most frequently used strategies which were at an extensive level included scanning ($\bar{X} = 3.84$), making inference ($\bar{X} = 3.55$), and schema ($\bar{X} = 3.54$) respectively.

1.2 High achievers and low achievers had different levels of strategy usage. That is, high achievers had an extensive level of strategy usage ($\bar{X}=3.73$) which meant that high achievers used reading strategies much frequently while low

achievers had a medium level of strategy usage ($\bar{X}=3.32$) which meant that low achievers used reading strategies with medium frequency.

1.3 The students with English learning experience of less than 8 years, 8-12 years, and more than 12 years had different level of strategy usage. That is, the students with English learning experience of less than 8 years and 8-12 years had medium level of strategy usage ($\bar{X}=3.13$ and $\bar{X}=3.30$) while the students with English learning experience of more than 12 years had an extensive level of strategy usage ($\bar{X}=3.52$).

1.4 Faculties which had extensive level of strategy usage included Humanities ($\bar{X}=4.39$), Fine and Applied Arts ($\bar{X}=3.54$), and Engineering ($\bar{X}=3.50$). Faculties which had a medium level of strategy usage included Law ($\bar{X}=3.44$), Business Administration ($\bar{X}=3.44$), Communication Arts ($\bar{X}=3.43$), Accounting ($\bar{X}=3.29$), Economics ($\bar{X}=3.24$), and Science and Technology ($\bar{X}=3.22$).

1.5 The students who (often, sometimes, and never) read outside class had different level of strategy usage. That is, the students who often read outside class had an extensive level of strategy usage ($\bar{X}=3.86$) while the students who sometimes and never read outside class had a medium level of strategy usage ($\bar{X}=3.42$ and $\bar{X}=3.27$).

2. The comparison of reading strategy usage of the second-year students of Bangkok University classified by gender, group of achievers, faculty, English learning experience, and reading behavior outside class.

2.1 There was no statistically significant difference between male and female students in the overall strategy usage and in each strategy.

2.2 There was a statistically significant difference between the two groups of achievers (low and high) in the overall strategy usage at the level of .05. In general, the mean of the high achiever group was higher than that of the low achiever group. It was also found that there were statistically significant differences between two groups in six strategies at the level of .05. These were skimming, schema, identifying main idea and supporting details, using grammatical clues, using word parts, and using context clues. However, there was no statistically significant difference found between two groups in terms of two strategies (scanning and making inference).

2.3 Significant differences among nine faculties were found at the level of .05 in all strategies. These were scanning, skimming, schema, identifying main idea and supporting details, using grammatical clues, using word parts, using context clues, and making inference. That is, the students in Humanities used reading strategies most frequently among nine faculties.

2.4 The students who had different English learning experience (less than 8 years, 8-12 years, more than 12 years) employed overall reading strategies at the level of significance of .05. Every reading strategy had statistically significant differences except scanning and identifying main idea and supporting details.

2.5 The students who had different reading behavior outside class (often, sometimes, and never) employed overall reading strategies at the level of significance at .05. Every reading strategy had statistically significant differences except scanning and skimming.

Discussion

Discussion of research hypothesis 1 : Different group of students (low and high achievers) have different reading strategy usage.

According to research findings, there was a statistically significant difference between two groups of achievers (low and high) in the overall strategy usage at the level of .05. In general, the mean of reading strategies usage of the high achiever group was higher than that of the low achiever group. The result was in consistent with Lau and Chan (2003) whose findings revealed that good readers scored higher than poor readers in using all reading strategies and with Wijanpreecha (2005) whose findings revealed that the students with higher reading proficiency employed more

reading strategies than the students with moderate and lower reading proficiency.

This is due to the following reasons :

- 1) Naturally the high achievers were reading-lovers, so they read a variety of materials. The more they read, the more strategic readers they would become, and they would develop how to use reading strategies spontaneously (Monos, 2005).
- 2) According to the result of in-dept interview, the high achievers realized the importance of reading strategies which would help them improve reading comprehension and they knew how to select the reading strategies to suit their reading task. This result agrees with Duffy (1993, cited in Richards and Renandya, 2002) indicating that strategy use was different in more proficient and less proficient readers. More proficient readers used different types of strategies, and they used them in different ways to achieve their reading comprehension.
- 3) High achievers tended to set learning goal, so they tried to study hard every subject in order to acquire good grade. For English subject especially reading part, the exam paper would require the students to summarize and give response from what they read. The students knew that reading strategies were key factor to help them to summarize and give response well, so they paid more attention to study hard how to

use reading strategies effectively so that they could accomplish the reading exam and get good grade (Srijunyachol, 2006).

Discussion of research hypothesis 2 : Male and female students have different reading strategy usage.

According to research findings, there was no gender difference in the overall strategy usage. This is because reading is not a subject which requires linguistic talents and intellectual ability, and both male and female students have been practicing in both secondary and university level. So either gender can apply reading strategies whenever they read. This result is in consistent with Phakiti (2003) who investigated gender and strategy use in L2 reading and with Poole (2005) who investigated difference in reading strategy use among ESL college students. Both of them suggested in their findings that reading strategies usage was primarily influenced by factors other than gender.

Discussion of research hypothesis 3 : Students coming from different faculties have different reading strategy usage.

As the research findings revealed, significant differences among nine faculties were found at the level of .05 in all strategies. Faculties which had an extensive level of strategy usage included Humanities ($\bar{X}=4.39$), Fine and Applied Arts ($\bar{X}=3.54$), and

Engineering ($\bar{X}=3.50$). Faculties which had a medium level of strategy usage included Law ($\bar{X}=3.44$), Business Administration ($\bar{X}=3.44$), Communication Arts ($\bar{X}=3.43$), Accounting ($\bar{X}=3.29$), Economics ($\bar{X}=3.24$), Science and Technology ($\bar{X}=3.22$) However, the mean of reading strategies usage of all students from nine faculties was at a medium level. The students from the faculty of Humanities received the highest mean ($\bar{X} = 4.39$) while students from the faculty of Science and Technology and Economics received the lowest mean ($\bar{X} = 3.22, \bar{X} = 3.24$). This is because 1) the students in Humanities had more exposure to other materials in English and were more exposed to English in their high school than the students in other faculties. 2) the students in Humanities are involved in English since this faculty provides English major and Hotel and Tourism in which the students must be continuously taught and encouraged to practice reading strategies as part of their major subjects. This findings are in accordance with Oxford (1990) who explained that students in Humanities were found to employ some strategies more often than the students in technical or business major.

Discussion of research hypothesis 4 : Students with different English learning experience have different reading strategy usage.

According to research findings, the students who had different English learning experience (less than 8 years, 8-12 years, more than 12 years) employed different overall reading strategies at the level of significance of .05. That is, years of studying English or English learning experience affects the reading strategy usage of the students. In this view, the students with English learning experience of less than 8 years and 8-12 years had medium level of strategy usage ($\bar{X}=3.13$ and $\bar{X}=3.30$) while the students with English learning experience of more than 12 years had extensive level of strategy usage ($\bar{X}=3.52$). This is because years of studying will provide opportunity for the students to read; therefore, the more the students read, the more language they acquire (Harmer, 2001). This findings also agree with Monos (2005) confirming that the more time spent on academic texts, the higher levels of strategy use is reported. He also discussed that skilled reading can be developed through a lot of reading; that is, the more someone reads, the more strategic reader he or she becomes. In addition, the findings can be supported by Haugen (2007) saying that learning experience given by parents were also important. He clarified that some students were good readers because their parents educated them about reading and supported them to read a great deal since they were young. So, they found reading easy and instinctively understood how to use reading strategies. For instance, when

reading newspaper, these students had no difficulty scanning the pages quickly, then slowed down to focus on one interesting article.

Discussion of research hypothesis 5 : Students who have different reading behavior outside class have different reading strategy usage.

According to research findings, reading behavior outside class affects overall reading strategies at the level of significance at .05. That is, the students who often read outside class had extensive level of strategy usage ($\bar{X}=3.86$) while the students who sometimes and never read outside class had medium level of strategy usage ($\bar{X}=3.42$ and $\bar{X}=3.27$) This is because outside reading will allow the students to choose material specially written for them; hence, it will improve their overall comprehension skills (Harmer, 2001). The findings are also in consistent with Haugen (2007) indicating that one of factors which helps the readers to learn how to read more successfully is the reader's interest in the topic. So, the students have an opportunity to select the books or topics they like resulting in improved reading comprehension. In contrast to the good readers, the poor students who are lazy and inattentive about reading, or feel insecure and easily intimidated by complex material have never had to read anything as difficult as their college textbooks and research materials. As a result, such students have not learned to use a variety of reading

strategies. In addition, according to Oxford (1990), language learners must seek out or create opportunities to practice the language skills, especially, if students want to reach high proficiency, classroom time cannot usually provide adequate practice opportunities. Therefore, students will need to find additional chances to practice the language whenever and wherever possible.

Implication for teaching and learning reading at Bangkok University

1. Teacher should encourage and motivate the low and medium achievers to use overall reading strategies extensively as high achievers use, especially some reading strategies which they don't use frequently such as identifying main idea and supporting details, using grammatical clues ,and using word parts. If doing so, they will improve their reading comprehension, English test score at Bangkok University, and even test score of standardized test like TOEIC which will be useful for their future careers. (Duffy,1993 cited in Richards and Renandya, 2002 and David and Thompson, 2005)
2. Since the product-oriented approach does not work in teaching reading (Rerkaroonthong, 2000 cited in Wichadee, 2005), the teacher should seek more interesting teaching techniques to teach reading or construct other instructional medium such as computer-assisted instruction or online lesson for teaching reading

strategies so that the students will study reading more attentively and use reading strategies they rarely use or haven't recognized before which will lead to better reading comprehension.

3. Teacher should not ignore teaching grammar although the policy of teaching English at Bangkok University will place an emphasis on communicative approach because it involves some reading strategies such as using grammatical clues and using context clues. As the findings and the results of in-dept interview revealed, the students had limited grammar knowledge, so they could not use those reading strategies extensively.
4. Although theoretically, English for Specific Purposes (ESP) will mainly focus on content and knowledge in particular field (Munsakorn, 2006), in response to research findings, Bangkok University Language Institute should add more supplementary exercises for the students to practice using reading strategies in English for Specific Purposes (ESP) courses such as English for Arts and Design for Fine and Applied Arts students, English Reading and Writing for Communication Arts for Communication Arts students, English Legal Language for Law students, and English for Business Purposes for Business Administration and Economics students.

5. Teacher should emphasize more practice on the use of reading strategies for the technical and business students like Accounting, Science and Technology, Communication Arts, Economics, and Business Administration because the students in these fields were found to use less reading strategies. (Oxford, 1990).

6. At present, there are the students in three faculties: Communication Arts, Fine and Applied Arts, and Science and Technology who do not study Advanced English (English four), Bangkok University Language Institute; therefore, should have discussion with the administrators of those faculties to add more learning period of Advanced English (English four) for their students because this course is the last general English subject taught in Bangkok University which will provide the students more time to practice reading strategies. This will help the students in these faculties to become more strategic readers because the more time they spent to read and use reading strategies, the more they will become proficient readers. (Monos, 2005 and Haugen, 2007)

7. Teacher should assign the students to read external reading materials every week, and they have to write a review or summary of what they read to communicate with the teacher. However, the teachers have to let them choose the reading materials in which they are interested because if the students have an opportunity to select the

books or the topics they like, their reading comprehension will be improved since they have learned to use a variety of reading strategies by themselves automatically. (Haugen, 2007)

Recommendation for Further Research

1. There should be another research which investigates other learning strategies such as writing strategies.
2. The usage of reading strategies should be tested with other levels such as first year students so that reading materials will be suitably prepared to improve their reading ability.

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Part I : Personal Data of Respondents**Instruction:** Put a tick (✓) in the box.

1. Gender

☐ Male☐ Female

2. What faculty do you belong to?

☐ Accounting☐ Law☐ Science and Technology☐ Communication Arts☐ Economics☐ Engineering☐ Humanities☐ Fine Arts☐ Business Administration

3. How long have you been studying English?

☐ less than 8 years☐ 8-12 years☐ more than 12 years

4. How often do you read publications in English (document, magazine, textbook) outside the classroom?

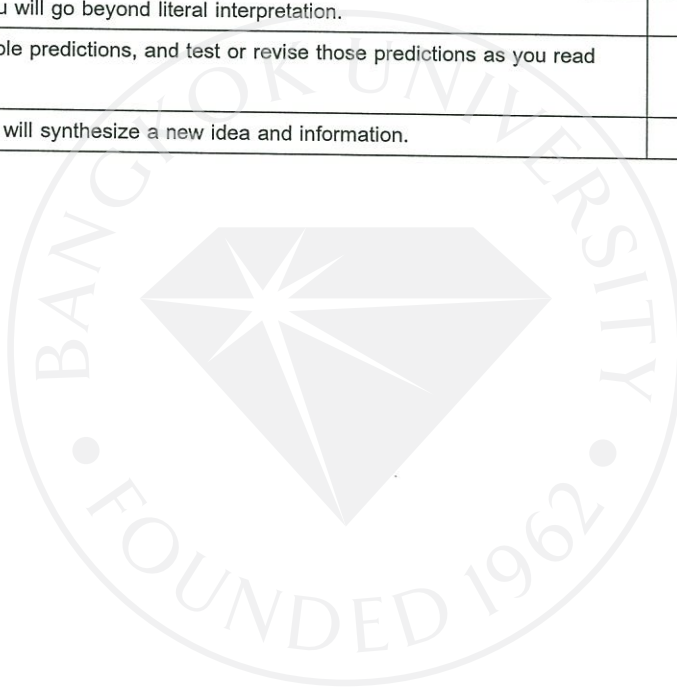
☐ Often☐ Sometimes☐ Never**Part II : The Use of Reading Strategies****Instruction:** Put a tick (✓) in the box that shows how often you use each reading strategy according to the five scales:

- 5 = very frequently
 4 = frequently
 3 = sometimes
 2 = rarely
 1 = never

Questions	5	4	3	2	1
1. When you are reading, you sweep your eyes through the passage to locate relevant specific information.					
2. If you do the test, you will look at the questions first, then go back to look for specific answers in the passage.					
3. While you are reading, you always realize that you are looking for the answer.					
4. You look at charts, graphs, pictures, or captions to help you understand the text.					
5. While you are reading, you will observe words that are italicized or bold.					
6. While you are reading, you will move your eyes very quickly through the whole passage to get the information and idea.					
7. While you are reading, you will move your eyes very quickly to predict the purpose of the passage.					
8. When you read the passage, you read the first line of each paragraph.					
9. When you read, you will read in broad phrase.					
10. You will read only important words or phrases.					
11. Before you read, you think of what you already know about the topic.					
12. While you are reading, you connect your background knowledge to what is being read.					
13. While you are reading, you will decide whether the information makes sense based on what you already know about the topic.					
14. While you are reading, you imagine scenes or draw pictures of what you are reading.					

Questions	5	4	3	2	1
15. After you read, you will use your knowledge and experience to lead you to logical conclusion.					
16. When you read, you will search for topic sentence of each paragraph.					
17. While you are reading, you look for detail (fact, reason, or statistics) used to support the topic sentence.					
18. You make use of main idea and supporting detail to help you understand the passage.					
19. When you read, you will distinguish between main ideas, major details and minor details.					
20. You will compose the statement of main idea when none appears in the text.					
21. When you read, you will recognize the pattern of organization of the text (e.g. chronological order, cause and effect and compare and contrast).					
22. When you read, you will look for the topic of the text.					
23. You summarize in your mind or in writing important information that you read.					
24. You use the knowledge of part of speech (noun, verb, adjective) to help you understand word meaning and sentence structure.					
25. You use the knowledge of sentence pattern to help you understand long and complex sentences which are difficult to interpret.					
26. You use punctuation (dash, colon, and parenthesis) as a signal to help you understand word meaning.					
27. You notice some modifiers to help you understand unfamiliar words.					
28. You use the knowledge of subject and verb agreement to help you understand word and sentence meanings.					
29. You use the knowledge of tense to help you understand the event of what you are reading.					
30. You use the knowledge of phrase such as participial phrase, gerundial phrase and infinitive phrase to help you understand words and sentence meanings.					
31. You use the knowledge of clause such as adjective clause, noun clause and adverb clause to help you understand words and sentence meanings.					
32. You use the knowledge of type of sentence to help you understand sentence meanings.					
33. You use the knowledge of root to help you understand the meaning of unfamiliar word.					
34. You use the knowledge of prefix to help you understand the meaning of unfamiliar word.					
35. You use the knowledge of suffix to help you understand the meaning of unfamiliar word.					
36. When you see pronoun reference (he, she, it, that, those), you will find what they refer to by repeating the preceding sentences.					
37. You use restatement to help you understand difficult words.					
38. You notice transitional markers such as first, however, therefore, but, similarly etc to help you understand sequence, emphasis, contrast, and similarity.					

Questions	5	4	3	2	1
39. You use relative clause to help you understand difficult words.					
40. You make use of synonym and antonym to help you understand unfamiliar words.					
41. When you read a word you don't know, you try to figure out its meaning by looking at the rest of the story.					
42. You will read between the lines when you want to conclude the writer's idea which was not stated directly and clearly in the passage.					
43. While you are reading, you periodically check whether the material is making sense to you.					
44. You use clues in a text along with what you already know to figure out what the author means.					
45. When you read, you will go beyond literal interpretation.					
46. You make reasonable predictions, and test or revise those predictions as you read further.					
47. After you read, you will synthesize a new idea and information.					



APPENDIX B

THAI QUESTIONNAIRE



แบบสอบถามนักศึกษามหาวิทยาลัยกรุงเทพชั้นปีที่ 2 เกี่ยวกับการใช้กลยุทธ์ในการอ่านภาษาอังกฤษ

ตอนที่ 1: ข้อมูลส่วนตัวของผู้ตอบแบบสอบถาม

คำแนะนำ กรุณาทำเครื่องหมาย (✓) ลงในช่องสี่เหลี่ยม

1. เพศ

☐

ชาย

☐

หญิง

2. ท่านกำลังศึกษาในคณะ

☐

บัญชี

☐

นิติศาสตร์

☐

วิทยาศาสตร์และเทคโนโลยี

☐

นิเทศศาสตร์

☐

เศรษฐศาสตร์

☐

วิศวกรรมศาสตร์

☐

มนุษยศาสตร์

☐

ศิลปกรรมศาสตร์

☐

บริหารธุรกิจ

3. ท่านเรียนภาษาอังกฤษมาแล้วเป็นระยะเวลารวมทั้งสิ้น

☐

น้อยกว่า 8 ปี

☐

8-12 ปี

☐

มากกว่า 12 ปี

4. ท่านได้อ่านเอกสารหรือสิ่งตีพิมพ์ที่เป็นภาษาอังกฤษนอกห้องเรียนในระดับใด

☐

บ่อยครั้ง

☐

บางครั้ง

☐

ไม่เคยเลย

ตอนที่ 2: การใช้กลยุทธ์ในการอ่านภาษาอังกฤษ

คำแนะนำ กรุณาทำเครื่องหมาย (✓) ลงในช่องสี่เหลี่ยมเพื่อแสดงถึงการใช้กลยุทธ์ในการอ่านภาษาอังกฤษ ตามระดับดังต่อไปนี้

5 = บ่อยมาก

4 = บ่อย

3 = บางครั้ง

2 = ไม่ค่อยใช้

1 = ไม่เคย

คำถาม	5	4	3	2	1
1. ในขณะที่อ่าน ท่านกวาดสายตาเพื่อหาข้อมูลเฉพาะที่ท่านต้องการทราบ					
2. ถ้าท่านทำแบบทดสอบ ท่านดูคำถามก่อนแล้วหาคำตอบเฉพาะที่เกี่ยวข้องกับคำถาม					
3. ในขณะที่อ่าน ท่านคำนึงตลอดเวลาว่ากำลังหาคำตอบ					
4. ท่านดูแผนภูมิ กราฟ รูปภาพ หรือคำอธิบายได้ภาพ เพื่อช่วยในการอ่าน					
5. ในขณะที่อ่านท่านสังเกตคำที่เป็นอักษรตัวเอียงและตัวหนา					
6. ในขณะที่อ่าน ท่านกวาดสายตาอย่างรวดเร็วเพื่อจับสาระสำคัญหรือใจความสำคัญของเรื่อง					
7. ในขณะที่อ่าน ท่านกวาดสายตาอย่างรวดเร็วเพื่อคาดเดาวัตถุประสงค์ของเนื้อหา					
8. เมื่อท่านอ่านเนื้อเรื่อง ท่านอ่านประโยคแรกของทุกย่อหน้า					
9. ในขณะที่อ่าน ท่านไม่อ่านทุกคำแต่จะอ่านข้ามเป็นตอน ๆ					
10. ท่านอ่านแต่เฉพาะกลุ่มคำหรือวลีที่สำคัญเท่านั้น					
11. ก่อนอ่าน ท่านจะคิดถึงสิ่งที่ท่านรู้แล้วเกี่ยวกับเรื่องที่อ่าน					
12. ในขณะที่อ่าน ท่านเชื่อมโยงความรู้ที่ท่านมีอยู่เดิมกับสิ่งที่กำลังอ่านอยู่					
13. ในขณะที่อ่าน ท่านตัดสินใจว่าข้อมูลนั้นสมเหตุสมผล โดยอาศัยความรู้เดิมเกี่ยวกับข้อมูลนั้น					
14. ในขณะที่อ่าน ท่านจินตนาการถึงภาพของสิ่งที่อ่าน					
15. หลังจากอ่านเสร็จ ท่านใช้ความรู้และประสบการณ์เดิมของท่านสรุปสิ่งที่อ่านอย่างมีเหตุผล					
16. ในขณะที่อ่าน ท่านมองหาประโยคที่เป็นใจความหลักของแต่ละย่อหน้า					
17. ในขณะที่อ่าน ท่านมองหารายละเอียดต่าง ๆ ที่ใช้สนับสนุนประโยคที่เป็นใจความหลัก					
18. ในขณะที่อ่าน ท่านใช้ประโยคใจความหลักและใจความสนับสนุนเพื่อให้เข้าใจเรื่องที่อ่าน					
19. เมื่อท่านอ่าน ท่านแยกใจความหลักออกจากใจความสนับสนุน					
20. ท่านจะสรุปใจความหลักเองถ้าผู้เขียนไม่ได้ให้มา					
21. เมื่อท่านอ่าน ท่านสังเกตรูปแบบการนำเสนอเนื้อหา เช่น เนื้อหาที่นำเสนอโดยเรียงตามลำดับเหตุการณ์, เหตุและผลหรือการเปรียบเทียบความเหมือนและความต่าง					
22. เมื่อท่านอ่าน ท่านมองหาหัวข้อของเรื่องที่อ่าน					
23. ท่านสรุปข้อมูลสำคัญที่ท่านอ่านไว้ในใจหรือจดบันทึกไว้					
24. ท่านใช้ความรู้ทางไวยากรณ์เรื่องชนิดของคำ (part of speech) เช่น คำนาม กริยา คุณศัพท์ ช่วยให้เข้าใจความหมายของคำหรือ โครงสร้างของประโยค					

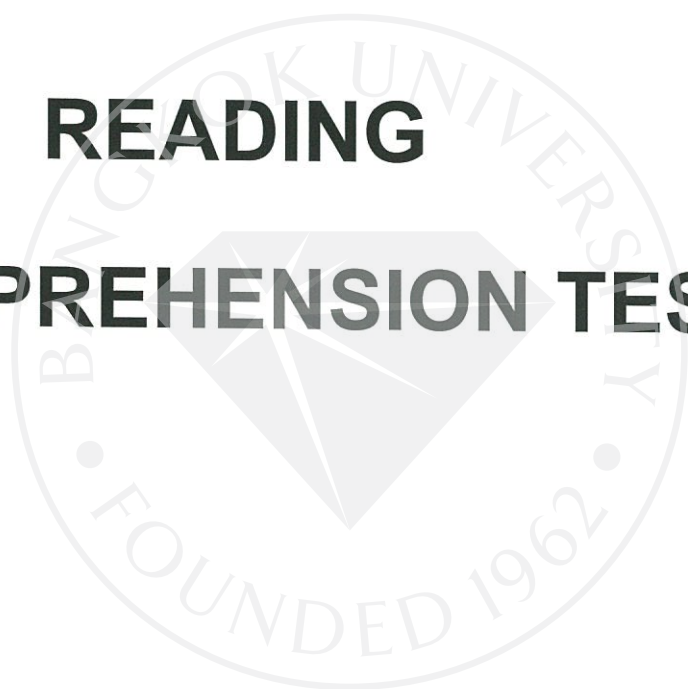
คำถาม	5	4	3	2	1
25. เมื่อพบประโยคที่มีความยาวและซับซ้อนซึ่งทำให้ยากต่อการตีความ ท่านใช้ความรู้ทางไวยากรณ์เรื่อง รูปประโยค (sentence pattern) เพื่อช่วยให้เข้าใจสิ่งที่อ่าน					
26. ท่านใช้เครื่องหมายวรรคตอน (punctuation) เช่น dash, colon, parenthesis เป็นสัญญาณบอกให้ทราบว่าคำหรือกลุ่มคำที่ตามหลังอธิบายขยายความคำที่มาข้างหน้า					
27. ท่านสังเกตคำขยาย (modifier) เพื่อช่วยเดาความหมายของศัพท์ยาก					
28. ท่านใช้ความรู้เรื่องการใช้กริยาให้สอดคล้องกับประธานในประโยค (subject and verb agreement) ช่วยเพื่อให้เข้าใจความหมายของประโยคได้ดียิ่งขึ้น					
29. ท่านใช้ความรู้เรื่อง กาล (tense) ช่วยเพื่อให้เข้าใจเหตุการณ์ของเรื่องที่อ่านได้ดียิ่งขึ้น					
30. ท่านใช้ความรู้เรื่องวลี (phrase) ประเภทต่างๆ เช่น participial phrase, gerundial phrase and infinitive phrase ช่วยในการเข้าใจความหมายของศัพท์ยากและเข้าใจความหมายระดับประโยค					
31. ท่านใช้ความรู้เรื่องอนุประโยค (clause) ประเภทต่างๆ เช่น adjective clause, noun clause and adverb clause ช่วยในการเข้าใจความหมายของศัพท์ยากและเข้าใจความหมายระดับประโยค					
32. ท่านใช้ความรู้เรื่อง ประเภทของประโยค (type of sentence) ช่วยในการเข้าใจความหมายระดับประโยค					
33. ท่านใช้ความรู้เรื่องรากศัพท์ (root) ช่วยเพื่อให้เข้าใจความหมายของ ศัพท์ยาก					
34. ท่านใช้ความรู้เรื่องอุปสรรค (prefix) ช่วยเพื่อให้เข้าใจความหมายของ ศัพท์ยาก					
35. ท่านใช้ความรู้เรื่องปัจจัย (suffix) ช่วยเพื่อให้เข้าใจความหมายของ ศัพท์ยาก					
36. เมื่อเจอคำสรรพนามที่ใช้อ้างถึงคำหรือกลุ่มคำอื่น ๆ (pronoun reference) เช่น he, she, it, that, those ท่านจะอ่านประโยคที่ปรากฏหน้าคำเหล่านี้เพื่อดูว่าคำเหล่านี้หมายถึงอะไรหรือแทนอะไร					
37. เมื่อท่านเจอคำศัพท์ยาก ท่านจะอาศัยการกล่าวซ้ำ (restatement) ที่ตามมาช่วยให้ท่านเข้าใจความหมาย					
38. ท่านสังเกตการใช้คำเชื่อม (transitional marker) เช่น first, however, therefore, but, similarly etc. เพื่อทราบถึงลำดับเหตุการณ์ การเน้น การขัดแย้งหรือคล้ายกัน					

คำถาม	5	4	3	2	1
39. เมื่อท่านเจอคำศัพท์ยาก ท่านอาศัยคำขยายความที่ตามหลัง relative pronouns เช่น which, that, who ช่วยให้เข้าใจคำศัพท์นั้น					
40. เมื่อท่านเจอคำศัพท์ยาก ท่านใช้คำที่มีความหมายเหมือนและความหมายตรงกันข้าม (synonym/ antonym) ช่วยให้ท่านเข้าใจ					
41. เมื่อท่านเจอศัพท์ที่ท่านไม่รู้ ท่านจะพยายามหาความหมายด้วยการอ่านข้อความที่เหลือ					
42. ท่านอ่านอย่างละเอียดเมื่อท่านต้องการสรุปแนวคิดของผู้เขียนที่ไม่ได้กล่าวไว้อย่างชัดเจน					
43. ในขณะที่อ่านท่านจะตรวจสอบเป็นระยะๆว่า เนื้อหาที่ท่านมีเหตุผลหรือไม่					
44. ท่านใช้ตัวช่วยในเนื้อเรื่องที่อ่านและสิ่งที่ท่านรู้เกี่ยวกับเรื่องที่อ่านช่วยในการทำ ความเข้าใจความหมายที่ผู้เขียนต้องการสื่อสาร					
45. เมื่ออ่านท่านจะตีความให้ครอบคลุมเกินกว่าความหมายตามตัวอักษร					
46. ท่านคาดการณ์สิ่งที่ท่านอย่างมีเหตุผล นอกจากนี้ท่านจะตรวจสอบและทบทวนสิ่งที่คาดการณ์ไว้เมื่อต้องอ่านต่อ					
47. เมื่ออ่านเสร็จท่านจะสังเคราะห์แนวคิดและข้อมูลใหม่ๆ ที่ได้จากการอ่าน					

APPENDIX C

READING

COMPREHENSION TEST



Part III : Reading Test

Instruction: Choose the best answer and put (X) in the answer sheet provided.

Passage I

1 A survey team has spotted at least 6,000 of the sparrows in the Everglades spring, up from an estimated 4,000 to 5,000. The increase followed a decision by flooding control engineers not to inundate a key nesting ground.

2 Despite the good news, the Cape Sable seaside sparrow remains on the endangered list. Since 1981, its numbers have dropped more than 60 percent. The Everglades is home to at least 14 animal species classified as threatened or endangered.

3 Ecologists had argued the best way to save the sparrow was for flood – control engineers to stop storing and releasing millions of gallons of water in farm and residential areas surrounding Everglades National Park.

4 This year, the flight got as far as Washington before engineers decided they would not open the gates and flood an important sparrow nesting area. Environmentalists had warned that flooding this year could lead to the bird's extinction. The decision not to open the gates had led to the upturn in the sparrow's population. "By doing this, we have allowed the species to recover," an ecologist said.

(Source : อาจารย์จรยา (ยามะเพวัน) ประไพกรเกียรติ, 2537)

1. Ecologists were worried about the Cape sable seaside sparrow because.....
 - a. it had moved to other areas
 - b. it had been classified as extinct
 - c. its numbers had fallen
 - d. its nesting area had been discovered
2. The word "**spotted**" in paragraph 1 could best be replaced by
 - a. caught
 - b. labeled
 - c. followed
 - d. seen
3. The Cape Sable seaside sparrow is
 - a. extinct
 - b. ignored by local ecologists
 - c. common in other areas
 - d. endangered
4. The word "**inundate**" in paragraph 1 is closest in meaning to
 - a. remove
 - b. flood
 - c. protect
 - d. destroy

Passage II

1 Although the distant origins of soccer can be traced back thousands of year, the modern game is a **dynamic** sport, often undergoing significant changes in its rules, its players, its team formations, and in the organization of its important events. In the 1950s, the Brazilian national team, with its innovative team strategies, changed the way the game is played. Japan and Korea found a new way to organize soccer's greatest tournament, offering shared **venues** for the World Cup in 2002. But soccer is not just a man's game. In many parts of the world women have struggled, with varying degree of success, to achieve recognition for women's soccer. Recent years have seen them make great advances.

2 In 1958, Brazil won the World Cup in Sweden. This was a surprise win for two reasons. First, because no other Latin American team before had ever won when the finals took place outside Latin America. And secondly, because Brazil had never won the Cup before. Their victory was unforgettable, not just because of their skill, speed, and goal-scoring ability but also because they can caught their opponents off guard by changing the traditional 5-3-2 team formation. Brazil's new approach permitted much greater flexibility. When defending, they used the 4-3-3 formation with four players defending at the back, three in midfield, and three in the attack. While when attacking, they reversed the formation and place four men up front. From then onwards, soccer changed forever, with teams all over the world taking their cue from the **flamboyant** Brazilians and experimenting with a greater variety of formations.

3 While Brazil influenced the way soccer is played on the field, Japan and Korea completely changed the way soccer's World Cup is organized. They became the first Asian nations ever to host the finals and the first countries to do this together. Until 2002, the World Cup had taken place in only one country each time, but Japan and Korea formed a partnership, using a total of twenty stadiums, ten in Japan and ten in Korea, to meet the needs of the thousands of soccer fans that flocked to Asian from all over the world. Most of the stadiums were new and designed to the highest standards, so **this** also contributed to making the 2002 World Cup very memorable for the fans.

4 The time when a women's World Cup attracts the same interest and excitement as the men's event is probably still a long way off, but historically speaking, women's role in the story of soccer starts a surprisingly long time ago. The first known records of women's soccer are some Chinese frescoes of women playing soccer at the time of the Donghan Dynasty (A.D. 25-220). Women's soccer then seems to have disappeared with the next dynasty, the Quings. In the late19th century, records show that women's soccer matches were very popular in Scotland, where married women played against single women. In the

20th century, however, the women's game was banned in England, Holland, and Germany. Then, in the second half of same century, women's soccer made a comeback, and since 1984, it has had its own World Cup event. Now, many countries such as Italy, Denmark, Sweden, Japan, the U.S., and Brazil are very enthusiastic about women's soccer. So maybe, some time soon, women's soccer will produce its own soccer legend of the stature of Zidane, Moradona, Ronaldo, and Pele.

(Source : Johannsen, 2003)

11. The word "**dynamic**" in paragraph 1 means.....
 - a. forming
 - b. changing
 - c. tracing back
 - d. interesting
12. What is the best title for the passage?
 - a. Women in Soccer History
 - b. Historical Changes to Soccer Rules
 - c. Making Soccer History
 - d. The Most Popular Sport of the World
13. What is true according to information given?
 - a. No other Latin American team won the World Cup.
 - b. New team formation was initiated by Brazil.
 - c. In the old times, soccer was for man only.
 - d. Japan and Korea are the first nations to organize the World Cup.
14. When did soccer start to change greatly?
 - a. 1950
 - b. 1958
 - c. 1984
 - d. 2002
15. It can be inferred from the passage that Japan and Korea.....
 - a. changed the organization of soccer's World Cup
 - b. were rivals in economics and sport
 - c. attracted the soccer fans from all over the world
 - d. were rich and had to spend a lot of money to maintain the stadiums in good conditions
16. What countries banned women's soccer in the first part of the 20th century?
 - a. England, Germany, the U.S.
 - b. Germany, England, Holland
 - c. Japan, Holland, England
 - d. Denmark, Italy, Holland
17. The word "**flamboyant**" in paragraph 2 means.....
 - a. different
 - b. exciting
 - c. beating
 - d. reversing
18. "**This**" in paragraph 3 does not include.....
 - a. the new organization of the World Cup
 - b. the new and modern stadiums
 - c. the thousands of soccer fans
 - d. the memorable cooperation of Japan and Korea

19. The word “**venue**” in paragraph 1 means.....
- a. competition b. judgment c. place d. influence
20. The last paragraph is mainly about.....
- a. the recognition of women’s World Cup.
- b. the development of women’s soccer.
- c. the origin of women’s soccer.
- d. the countries who encourages and discourages women’s soccer.

Passage III

1 Just outside the archaeological dig that made this ancient city famous sit old two farmers who share at least three things : the name Yang, a not-too-recently shaved head, and the claim to have unearthed China’s greatest historical find of the century.

2 It is a **spectacular** site – a grand army of terracotta warriors built to guard the tomb of Qin Shihuan, the emperor who unified China in 220 B.C. In March 1974, an usually bad drought prompted the commune leader to send several farmers to dig a well in Lintong, just outside Xian. According to Yang Zhifa, it was about noon on the third day of digging when he and one other farmer were six feet deep in a hole and he hit something hard. Digging it out, Yang Zhifa saw a torso – shaped piece of terracotta , carved in the shape of a warriors’ tunic.

3. As it turned out, the site of the well was only inches inside the original front entrance of an underground **vault**, which was eventually discovered to contain 6,000 life-size figures. The exact spot is marked in today’s excavated vault and was pointed out to Clinton, as it is to every visitor. No written record of the terracotta vault existed, so archaeologists were stunned as they uncovered its full length, several hundred yards long – and then found three smaller vaults behind it. The excavation continues and will probably take decades longer.

(Source : อาจารย์จรยา (ยามะเพวัน) ประไพกรเกียรติ, 2537)

21. According to the passage, the event which happened first was.....
- a. two old sitting outside the Xian archaeological site.
- b. the unearthing of China’s greatest historical site.
- c. the water shortage in Linton area.

Passage IV

1 The term biological clock is applied to the means by which living things adjust their activity patterns, without any obvious cue, to the time of the day, or the month, or the year. The biological clocks seem to be beautifully adapted to the needs of living things. They are affected but little, if at all, by drugs, chemicals, or wide temperature differences – factors which may alter substantially the rates of all ordinary processes of the body.

2 The nature of biological clocks' mechanism is still a mystery. Two quite different theories have been advanced to account for them. According to the first of these theories, each individual contains its own independent timing system. This is believed to have evolved, aided by natural selection, as an adaptation to the rhythmic environment. It has now become independent of the environment. According to this view, the clocks are not perfect timers. They require regular corrections by the natural light and tide cycles and the changing length of the day throughout the year.

3 The other theory holds that living things react continuously to their rhythmic physical environment. The setting of their biological clocks; therefore, involves a constant adjustment to subtle environment forces. If this view is correct, the basic living clocks are potentially perfect timers.

4 Biological clocks appear to be everywhere in living things – even in individual cells or parts of cells, but the search for the specific timing system has been futile thus far. Despite the careful study of many rhythmic phenomena and even of detailed chemical variations between cells, there is no evidence that any one of them is the clock – timer itself. Not only has no independent timing system ever been discovered, but there has not been even a plausible guess as to its nature.

(Source : ศศ. ดวงฤดี กาญจนพันธ์และคณะ, 2537)

31. The passage is mainly about.....

- a. a comparison of two types of biological clocks.
- b. theories of mechanism of biological clocks.
- c. the origin of timing systems in individuals.
- d. the study of rhythmic phenomena.

32. In paragraph 1, **they** refers to

- a. factors
- b. needs
- c. living things
- d. biological clocks

Content Validity of the Reading Test Assessed by Four Specialists

Items of the Reading Test	Specialists				Total	Average	Meaning
	1	2	3	4			
1	0	+1	+1	+1	3	.75	acceptable
2	+1	+1	+1	+1	4	1	acceptable
3	+1	+1	0	+1	3	.75	acceptable
4	+1	+1	+1	+1	4	1	acceptable
5	+1	+1	+1	+1	4	1	acceptable
6	+1	+1	+1	+1	4	1	acceptable
7	+1	+1	+1	+1	4	1	acceptable
8	+1	+1	+1	+1	4	1	acceptable
9	+1	+1	+1	0	3	.75	acceptable
10	+1	+1	+1	+1	4	1	acceptable
11	+1	+1	+1	+1	4	1	acceptable
12	+1	+1	+1	+1	4	1	acceptable
13	+1	0	+1	+1	3	.75	acceptable
14	+1	+1	+1	+1	4	1	acceptable
15	+1	+1	+1	+1	4	1	acceptable
16	+1	+1	+1	+1	4	1	acceptable
17	+1	+1	+1	+1	4	1	acceptable
18	+1	+1	+1	+1	4	1	acceptable
19	+1	+1	+1	+1	4	1	acceptable
20	+1	+1	+1	+1	4	1	acceptable
21	+1	+1	0	+1	3	.75	acceptable
22	+1	+1	+1	+1	4	1	acceptable
23	+1	+1	+1	+1	4	1	acceptable
24	0	+1	+1	+1	3	.75	acceptable
25	+1	+1	+1	+1	4	1	acceptable
26	+1	+1	+1	+1	4	1	acceptable

APPENDIX E

ANALYSIS OF DIFFICULTY

LEVEL (P VALUE) AND

DISCRIMINATION LEVEL

(R VALUE) OF THE

READING TEST

Analysis of Difficulty Level (P value) and Discrimination level (R value) of the Reading Test

Item	No. of students in the high achievers group who chose correct answers (RU)	No. of students in the medium achievers group who chose correct answers (RM)	No. of students in the low achievers group who chose correct answers (RL)	Difficulty level	Discrimination level
*1	17	11	10	0.76	0.41
*2	17	13	9	0.78	0.47
*3	16	13	8	0.74	0.47
4	14	12	8	0.68	0.35
*5	15	14	7	0.72	0.47
*6	17	16	5	0.76	0.71
*7	15	15	8	0.76	0.41
*8	16	12	8	0.72	0.47
*9	16	13	7	0.72	0.53
10	13	8	9	0.60	0.24
11	16	15	12	0.86	0.24
*12	15	10	8	0.66	0.41
*13	17	9	8	0.68	0.53
*14	16	15	6	0.74	0.59
*15	16	15	8	0.78	0.47
*16	16	12	8	0.72	0.47
17	17	15	13	0.90	0.24
*18	15	12	7	0.68	0.47
19	17	15	14	0.92	0.18
*20	17	12	8	0.74	0.53
*21	16	12	9	0.74	0.41
*22	15	16	7	0.76	0.47
*23	17	13	4	0.68	0.76
24	15	12	11	0.76	0.24
25	17	16	13	0.92	0.24
*26	16	12	8	0.72	0.47
*27	16	14	8	0.76	0.47
*28	17	14	4	0.70	0.76
*29	17	12	7	0.72	0.59
*30	17	13	8	0.76	0.53
31	8	9	5	0.44	0.18

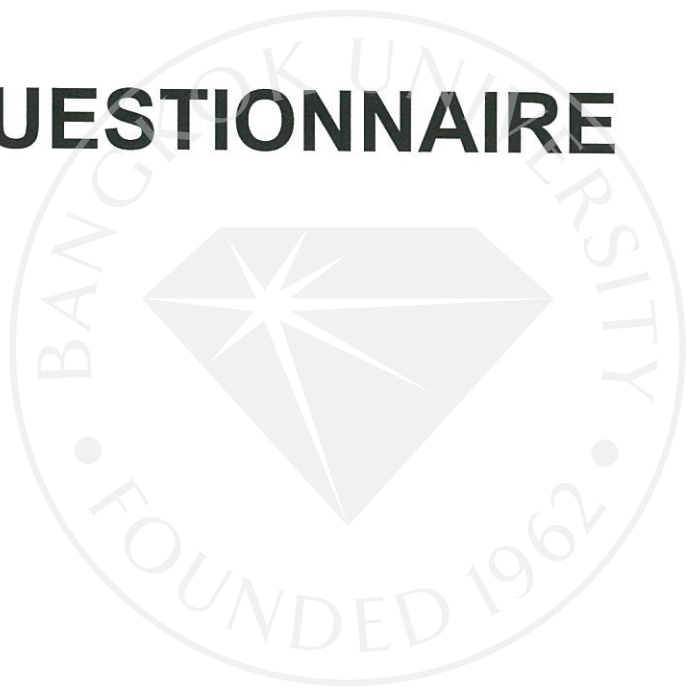
Item	No. of students in the high achievers group who chose correct answers (RU)	No. of students in the medium achievers group who chose correct answers (RM)	No. of students in the low achievers group who chose correct answers (RL)	Difficulty level	Discrimination level
*32	16	11	8	0.70	0.47
*33	17	12	9	0.76	0.47
*34	15	13	8	0.72	0.41
*35	16	13	7	0.72	0.53
*36	16	13	7	0.72	0.53
*37	16	11	8	0.70	0.47
*38	16	16	6	0.76	0.59
39	15	13	10	0.76	0.29
*40	15	13	8	0.72	0.41
*41	16	15	8	0.78	0.47
*42	15	14	7	0.72	0.47
*43	16	13	7	0.72	0.53
*44	16	12	8	0.72	0.47
45	14	12	8	0.68	0.35
*46	17	12	8	0.74	0.53
*47	17	13	9	0.78	0.47
*48	17	13	4	0.68	0.76
*49	15	12	7	0.68	0.47
*50	16	15	6	0.74	0.59

Remark : * are the items which were selected to be used in the reading test

APPENDIX F

CONTENT VALIDITY OF

QUESTIONNAIRE



The Results of Assessment done by 4 Specialists on 47 Items of the Questionnaire

Items of Questionnaire	Specialists				Total	Average	Meaning
	1	2	3	4			
1	+1	+1	+1	+1	4	1	acceptable
2	+1	+1	+1	+1	4	1	acceptable
3	+1	+1	+1	+1	4	1	acceptable
4	+1	+1	+1	+1	4	1	acceptable
5	+1	+1	+1	+1	4	1	acceptable
6	+1	+1	+1	+1	4	1	acceptable
7	+1	+1	0	+1	3	.75	acceptable
8	0	+1	+1	+1	3	.75	acceptable
9	+1	0	+1	+1	3	.75	acceptable
10	+1	+1	+1	+1	4	1	acceptable
11	+1	+1	+1	+1	4	1	acceptable
12	+1	+1	+1	+1	4	1	acceptable
13	+1	+1	+1	+1	4	1	acceptable
14	+1	+1	+1	0	3	.75	acceptable
15	+1	+1	+1	+1	4	1	acceptable
16	+1	+1	+1	+1	4	1	acceptable
17	+1	+1	+1	+1	4	1	acceptable
18	+1	+1	+1	+1	4	1	acceptable
19	+1	+1	+1	+1	4	1	acceptable
20	+1	+1	+1	+1	4	1	acceptable
21	+1	+1	0	+1	3	.75	acceptable
22	+1	+1	+1	+1	4	1	acceptable
23	+1	+1	+1	+1	4	1	acceptable
24	+1	+1	+1	+1	4	1	acceptable
25	+1	+1	+1	+1	4	1	acceptable
26	+1	+1	+1	+1	4	1	acceptable

Items of Questionnaire	Specialists				Total	Average	Meaning
	1	2	3	4			
27	+1	+1	+1	+1	4	1	acceptable
28	+1	+1	+1	+1	4	1	acceptable
29	+1	+1	+1	+1	4	1	acceptable
30	+1	+1	+1	+1	4	1	acceptable
31	+1	+1	+1	+1	4	1	acceptable
32	+1	+1	+1	0	3	.75	acceptable
33	+1	+1	+1	+1	4	1	acceptable
34	+1	+1	+1	+1	4	1	acceptable
35	+1	+1	+1	+1	4	1	acceptable
36	+1	+1	+1	+1	4	1	acceptable
37	+1	+1	+1	+1	4	1	acceptable
38	+1	+1	+1	+1	4	1	acceptable
39	+1	+1	+1	+1	4	1	acceptable
40	+1	+1	+1	+1	4	1	acceptable
41	+1	+1	+1	+1	4	1	acceptable
42	+1	+1	+1	+1	4	1	acceptable
43	+1	+1	+1	0	3	.75	acceptable
44	+1	+1	+1	+1	4	1	acceptable
45	+1	+1	+1	+1	4	1	acceptable
46	+1	+1	+1	+1	4	1	acceptable
47	0	+1	+1	+1	3	.75	acceptable
Total						.96	acceptable

APPENDIX G

RELIABILITY OF QUESTIONNAIRE

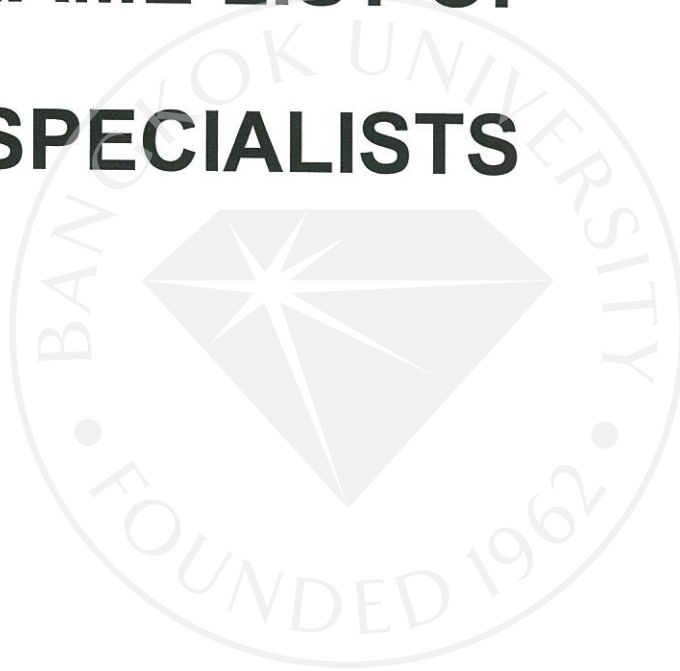


Reliability of the Questionnaire

Reading Strategies	Cronbach's Coefficient Alpha
1. Scanning	.897
2. Skimming	.621
3. Schema	.874
4. Identifying main idea and supporting	.882
5. Using grammatical clues	.947
6. Using word parts	.934
7. Using context clues	.852
8. Making inference	.878
Total	.948

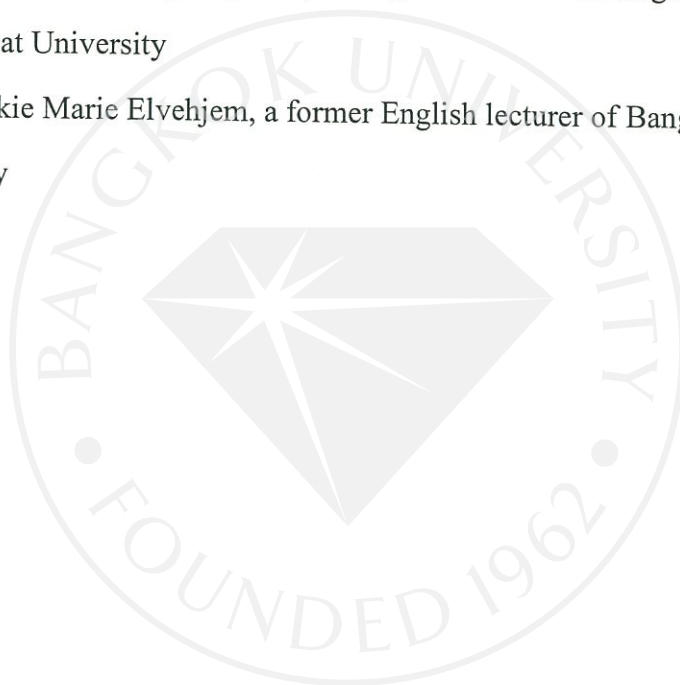
APPENDIX H

NAME LIST OF SPECIALISTS



Name list of specialists

1. Asst. Prof. Saovapa Wichadee, English lecturer of Bangkok University
2. Asst. Prof. Nuttanuch Munsakorn, English lecturer of Bangkok University
3. Asst. Prof. Apinya Ing-ard, a statistics lecturer of School of Science and Technology, Bangkok University
4. Ajarn Monthon Kanokpermpoom, an English lecturer of Language Institute of Thammasat University
5. Ajarn Jackie Marie Elvehjem, a former English lecturer of Bangkok University



APPENDIX I

QUESTIONS FOR

IN-DEPTH INTERVIEW



Questions for In-depth Interview

1. What reading strategies do you use when reading? How often do you use them?
2. What are the advantages of reading strategies you use?
3. What reading strategies do you use when you read the following publications, Why and How?
 - 3.1 newspaper
 - 3.2 journal and magazine
 - 3.3 textbook and academic text
 - 3.4 advertisement