

**THE METACOGNITIVE AWARENESS OF ENGLISH READING STRATEGIES ON EXPOSITORY TEXTS
AMONG THAI EFL STUDENTS**

การตระหนักรู้ทางด้านอภิปัญญาของกลวิธีการอ่านเนื้อเรื่องด้านวิชาการภาษาอังกฤษ
ของนักเรียนไทยที่เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศ

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ABSTRACT

The purposes of this study were (1) to investigate what metacognitive reading strategies students use in expository texts; (2) to discover how they use the strategies in actual reading tasks; and (3) to explore what similarities and differences exist between the actual use of strategies among high reading proficiency students (HRPSs) and low reading proficiency students (LRPSs). The samples were 84 surveyed students from grade 12 studying at Buriram Pitthayakhom School purposively selected and divided into two groups: 51 HRPSs and 33 LRPSs. The research instruments for data collection included: (1) MARSIS survey questionnaire, (2) reading proficiency test, (3) think-aloud protocols of two expository texts, (4) semi-structured interviews, and (5) observations of reading sections. The statistics for data analysis included, mean, standard deviation, and independent samples t-test. The significant difference was set at the level of .05. The quantitative results showed that the Thai EFL surveyed students used all three groups of metacognitive reading strategies at high levels. More specifically, problem solving reading strategies were reported as the most frequently used strategies; global reading strategies were the next most used strategies, and support reading strategies the least often employed. The HRPSs used problem solving reading strategies the most, followed by global reading strategies and support reading strategies; whereas, the LRPSs employed problem solving reading strategies the most, followed by support reading strategies and global reading strategies, respectively. The order of use of the metacognitive reading strategy groups used by the HRPSs and LRPSs was rather similar. However, the t-test results found that there were statistically significant differences at .05 levels in all of the three subsections reported to be used by the HRPSs and LRPSs. The qualitative analysis of the results indicated that participating students at different academic levels were aware of metacognitive reading strategies when engaged in academic reading. Key reading strategies used by these students included adjusting reading speed and selecting strategies for different purposes, using prior knowledge, inferring text, marking text, focusing on typographical features, and summarizing. When encountering challenges in reading comprehension, the students interviewed said they used context clues, re-read, and depended on supportive resources.

Keywords: Metacognitive Awareness, English Reading Strategies, Expository Texts, Thai EFL Students

บทคัดย่อ

การวิจัยครั้งนี้ มีวัตถุประสงค์เพื่อ (1) ศึกษากลวิธีอภิปัญญาอะไรที่นักเรียนใช้ในการอ่านเนื้อเรื่องทางวิชาการภาษาอังกฤษ (2) ศึกษาการใช้กลวิธีอภิปัญญาในการอ่านของนักเรียน และ (3) ตรวจสอบความเหมือนและความ

แตกต่างของการใช้กลวิธีการที่เกิดขึ้นจริงระหว่างนักเรียนที่มีความสามารถทางการอ่านภาษาอังกฤษในระดับสูงและนักเรียนที่มีความสามารถทางการอ่านภาษาอังกฤษในระดับต่ำ กลุ่มตัวอย่างที่ใช้ในการศึกษาครั้งนี้เป็นนักเรียนไทยชั้นมัธยมศึกษาปีที่ 6 โรงเรียนนบุรีรัมย์ พิทยาคม จำนวน 84 คน ที่ได้มาโดยการเลือกแบบเจาะจง โดยแบ่งเป็นนักเรียนที่มีความสามารถทางการอ่านภาษาอังกฤษในระดับสูง จำนวน 51 คน และนักเรียนที่มีความสามารถทางการอ่านภาษาอังกฤษในระดับต่ำ จำนวน 33 คน เครื่องมือที่ใช้ในการเก็บรวบรวมข้อมูลได้แก่ แบบสอบถามทางด้านอภิปัญญา การทดสอบความสามารถด้านการอ่าน ระเบียบการคิดในใจของเนื้อเรื่อง การอ่านสองเรื่อง การสัมภาษณ์ และการสังเกตจากเนื้อเรื่อง การอ่าน สถิติที่ใช้ในการวิเคราะห์ข้อมูลได้แก่ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐานและ Independent Samples *t*-test โดยกำหนดค่าความมีนัยสำคัญทางสถิติที่ระดับ .05 จากผลการวิเคราะห์เชิงปริมาณ พบว่า นักเรียนไทยใช้กลวิธีการอ่านภาษาอังกฤษด้านอภิปัญญาโดยรวมอยู่ในระดับมาก โดยใช้กลวิธีการอ่านแบบแก้ปัญหามากที่สุด รองลงมาคือกลวิธีการอ่านแบบองค์รวมและใช้กลวิธีการอ่านแบบสนับสนุนน้อยที่สุด นักเรียนที่มีความสามารถทางการอ่านภาษาอังกฤษในระดับสูงใช้กลวิธีการอ่านแบบแก้ปัญหามากที่สุด รองลงมาคือกลวิธีการอ่านแบบองค์รวม และกลวิธีการอ่านแบบสนับสนุน ส่วนนักเรียนที่มีความสามารถทางการอ่านภาษาอังกฤษในระดับต่ำใช้กลวิธีการอ่านแบบแก้ปัญหามากที่สุด รองลงมาคือกลวิธีการอ่านแบบสนับสนุน และกลวิธีการอ่านแบบองค์รวม ตามลำดับ ทั้งนี้นักเรียนที่มีความสามารถทางการอ่านภาษาอังกฤษในระดับสูงและนักเรียนที่มีความสามารถทางการอ่านภาษาอังกฤษในระดับต่ำมีระดับการใช้กลวิธีการอ่านที่ค่อนข้างเหมือนกัน จากการเปรียบเทียบการใช้กลวิธีการอ่านของนักเรียนที่มีความสามารถทางการอ่านภาษาอังกฤษในระดับสูงและนักเรียนที่มีความสามารถทางการอ่านภาษาอังกฤษในระดับต่ำ พบว่า นักเรียนทั้งสองกลุ่ม ใช้กลวิธีการอ่านทั้งสามกลวิธีแตกต่างกันอย่างมีนัยสำคัญทางสถิติที่ระดับ .05 ผลการวิเคราะห์เชิงคุณภาพพบว่า นักเรียนทั้งสองกลุ่มซึ่งมีระดับความสามารถทางวิชาการต่างกัน มีความตระหนักต่อกลวิธีการอ่านด้านอภิปัญญา ในขณะที่เริ่มอ่านเนื้อเรื่องด้านวิชาการ นักเรียนทั้งสองกลุ่มใช้กลวิธีหลักการอ่าน ดังต่อไปนี้ การปรับระดับความเร็วและการเลือกวิธีการอ่านสำหรับจุดประสงค์ที่แตกต่างกัน การใช้ความรู้เดิม การอนุมานข้อความ การทำเครื่องหมายข้อความ การมุ่งเน้นการสังเกตตัวอักษรที่หนาหรือเอียงและการสรุป เมื่อพบความท้าทายในการอ่านเพื่อจับใจความ นักเรียนได้กล่าวว่าพวกเขาใช้ข้อความรอบข้าง ใช้การอ่านทบทวน ใช้การอาศัยแหล่งข้อมูลสนับสนุน

คำสำคัญ: การตระหนักทางด้านอภิปัญญา กลวิธีการอ่านภาษาอังกฤษ เนื้อเรื่องด้านวิชาการ
นักเรียนไทยที่เรียนภาษาอังกฤษในฐานะภาษาต่างประเทศ

Introduction

Reading situations are inescapable. Nearly every aspect of life involves reading. Besides, reading is not only a cognitive, psycholinguistic activity, but also a social activity (Snow, Burns, & Griffin, 1998; Piyanukool, 2001; La-ongthong, 2002; Pookcharoen, 2010). The ability to read is highly valued and essential for social and economic advancement (Snow, Burns, & Griffin, 1998), and few adults would question the importance of reading in our complex, technological world (Roe, Burns, & Smith, 2005). Reading and reading comprehension are considered to be synonymous because when understanding breaks down, reading actually has not occurred (Piyanukool, 2001; Roe, Stoodt-Hill & Burns, 2004).

In Thailand, the goal of a high school course in basic English is to develop the students' ability to read and make use of English print materials such as textbooks, newspapers and professional journals. Previous studies have indicated that Thai students at the high school level have reading ability in English so low that they

cannot use English texts effectively. Consistently, on measures of English reading ability, Thai high school students have failed to perform at expected levels (Pookcharoen, 2007, 2008; Chuamklang, 2010). Thus far, the results of studies on the English reading ability of Thai high school students have indicated that their skill is not proficient enough to make effective use of English print resources. In addition, because of the demanding expectations for academic success in all areas of learning, high-school students, as English foreign language (EFL) learners, need to develop their English reading comprehension abilities to a stronger, more advanced level (Soonthornmanee, 2002). However, these Thai high-school students do not have much opportunity to develop these abilities, since most of the time English language teaching emphasizes on linguistic knowledge such as grammar points and vocabulary (Chandavimol, 1998).

Results from previous studies have revealed that the Thai students' English reading ability does not reach a very high level of proficiency. This may come from many causes including classes of a large size, limited reading strategies, and the methods of teaching reading comprehension in Thai classrooms (Chandavimol, 1998; Mejang, 2004). For example, Ratanakul (1998) states that a Thai reading classroom counts about 50 students, so in such a large class the teacher cannot interact with each student and learners have little opportunity for a consultation with the teacher about their reading difficulties and for assistance with their specific reading problems. Furthermore, the current understanding of reading strategies has been shaped significantly by research on what expert readers do (Bazerman, 1985; Pressley & Afflerbach, 1995; Piyanukool, 2001; La-ongthong, 2002).

Put in other words, metacognitive is the ability of the learners to stand back and critically evaluate him/her, with a view to censoring those aspects that do not answer the specific demands of a given task. The ability to interrogate and assess information critically is essentially the crux of critical literacy, which enables the student to select vital information from books, journals and other texts, and be able to reflect on it. Vygotsky (1978) maintains that the acquisition of the metacognitive skills eventually leads to an independent, self-regulated learner who has the ability to acquire, store, retrieve and manipulate information for a specific purpose. To achieve this goal, Thai EFL teachers and Thai EFL students need to understand strategies that both proficient less proficient Thai EFL high school students use while working directly with the texts. It is hoped that Thai EFL teachers and Thai EFL students will have a deeper and clearer understanding of reading strategy use and factors that influence the strategy use among Thai EFL students studying in high school.

Research Objectives

1. To investigate what metacognitive reading strategies students use in expository texts.
2. To discover how they use the strategies in actual reading tasks.
3. To explore what similarities and differences exist between the actual use of strategies among high reading proficiency students (HRPSs) and low reading proficiency students (LRPSs).

Research Questions

1. What metacognitive reading strategies do Thai EFL students report using on the MARSIS when reading English academic texts?
2. What metacognitive reading strategies do Thai EFL students employ when undertaking reading tasks?
3. Drawing on the survey, and self-report data, what similarities and differences exist between high reading proficiency students (HRPSs) and low reading proficiency students (LRPSs)?

Methodology

1. The Population and Participants

The population of interest was grade 12 students enrolled in the course English Reading-Writing 6 (ENG 42206), which is an elective course according to the standard National English Curriculum (2001) located in the Buriram Province. The participants were purposively selected and consisted of 84 students enrolled in two full classes chosen from five classes taking the course Fundamental English (E42101) in the second semester of the academic year 2010 at Burirampittayakhom High School. The participants were divided into two reading proficiency levels: low and high based on the scores for a reading comprehension test of the second semester of grade 11. The total sample included 33 low reading proficiency students (LRPSs), and 51 high reading proficiency students (HRPSs). Therefore, a total of eight students participated in further in-depth interviews to obtain a picture of their awareness of and their use of metacognitive reading strategies. Because all participants are from the same school, caution is warranted in application of this study to other school settings.

2. The Research Instruments

2.1 Metacognitive Awareness of Reading Strategies Inventory Survey (MARSIS)

The researcher used a published instrument known as the Metacognitive Awareness of Reading Strategies Inventory Survey (MARSIS). This MARSIS questionnaire is an adapted form of the Survey Of Reading Strategies (SORS) of Mokhtari and Sheorey (2002) in order to identify which metacognitive reading strategies readers use with the five-point Likert scale questions. Fundamentally, the MARSIS consisted of 30 items, each of which uses a 5-point Likert scale ranging from 1 ("I never or almost never do this") to 5 ("I always or almost always do this"). Students were asked to read each statement and put a tick in the number box that applies to them, indicating the frequency with which they use the reading strategy implied in the statement.

2.2 English Reading Texts

In selecting these texts, the participants' content schemata were the researcher's major concern. Even though the researcher has used the textbook from which all three texts were chosen (Anderson, 2003) for some of my English classes at grade 12 students a few years ago, most of the students had no previous access to the selected reading passages before taking part in study.

In Text One and Two, the texts were adapted to retain as much information as possible from the original, while fitting that information into the two discourse types of collection and problem solving. As to the Text Three and Four, since they had already been written in the two discourse types, there was no need to adapt the texts.

2.3 Think-aloud Protocol

In reviewing the reading strategy research, the researcher found that researchers have either used survey research or employed think aloud protocols to carry out their studies. In fact, neither self-report surveys nor think aloud protocols are free of shortcomings. As indicated by Poole (2005), self-report surveys do not report what the learners really do, but what they claim to do.

2.4 Classroom Observation

It is also interesting to pinpoint that, the limitation of the classroom observation was took note. The classroom observation could see some highlighted actions while reading, such as translation, underlining, circling, rereading, note taking, and using a dictionary, but it is difficult to observe thinking processes, such as planning, monitoring and regulating while reading.

2.5 Semi-structured Interviews

As this stage, the purpose of the interview is conducted to obtain information by actually talking to the subjects. The interviewers were asked questions and the subjects responded in a face-to-face situation.

3. Data Collection Procedures

3.1 MARSIS Survey Questionnaire

At the beginning of the study, the researcher measured the students' metacognitive awareness of reading strategies in their academic reading. The survey questions were completed by all the students in the both classes.

The conditions of the MARSIS questionnaire completion were described. The researcher explained the instructions in Thai, and then read aloud each item and statement to the learners in both English and Thai. The total time given was approximately 30 minutes for the learners to reflect upon each question or statement. After explaining the purpose of the inventory, the researcher directed the students to read the statement indicates how they use the strategy described in that statement, using the 5-point Likert scale provided after statement. Then, the researcher reminded the students that their responses were to refer only to the strategies they used when reading school-related materials, not leisure materials such as newspapers or magazines. Furthermore, the students were also encouraged to respond honestly to each statement in the inventory and to ask questions about any aspect of the inventory they did not understand.

3.2 GEPT Intermediate Reading Proficiency Test

Commissioned by the Thai Ministry of Education in 1999, the language training and testing center developed an English proficiency test called the General English Proficiency Test (GEPT) to measure the competence of English learners in Thailand. There are five different levels for the GEPT test: Elementary,

Intermediate, High-Intermediate, Advanced, and Superior. The examinees' listening, reading, writing, and speaking are all tested in the GEPT test.

3.3 Think-aloud Protocols

After the MARSIS, the students were asked to read two expository texts in the think-aloud sessions, while their reading process was being observed. After a thorough search by the researcher for well-organized texts which would be presented at an appropriate level of difficulty, the researcher selected these topics of the two reading texts: (1) Robotic Surgeons; and (2) Words to Remember.

3.4 Semi-structured Interviews

The semi-structured interview was used to elicit the Thai EFL students who are studying at Burirampitthakhom School concerning the metacognitive awareness of English reading strategies on expository texts. Interviews were conducted in a one-on-one interview setting in a relatively quiet location at the provider's facility. These discussions were conversational with the heart of the interview being the understanding of the other person's perceptions about the reading process and area of strength/expertise. Each interview was conducted in Thai to make sure that the interviewees do not have any linguistic problems when answering the questions. It took approximately 30 minutes per student. Sets of questions were determined by the research questions based on the literature review, and prepared by the researcher. These sets of questions were proposed to and corrected by the research specialists for validity and reliability.

3.5 Classroom Observations

Before observation, a checklist was prepared to facilitate the observation. During the observation, the coordinator went to the classroom and seated herself in the back of the classroom in order to observe the participants to determine what strategies they used in their reading. However, the researcher used a checklist to observe them. The researcher would also stand in front of the classroom and monitor the students' actions or strategies. Occasionally the researcher would stand in the middle of the classroom or in the back of the classroom.

4. Data Analysis and Statistical Procedures

4.1 Quality of the Research Instruments

First, IOC was employed to determine the validity of the instrument. Second, to ensure the reliability of the questionnaire, Coefficient of Cronbach's alpha was also employed to check the consistency of the answers of the responses for the items utilizing the five-point Likert scale.

4.2 Analysis of Data from the MARSIS

4.2.1 Frequency, Mean (\bar{X}), and Standard Deviation (S.D.) To achieve the research purpose in terms of analysis and interpretation of the data obtained through the study, different statistical methods with the assistance of SPSS program were employed. These included: 1) frequency; 2) mean (\bar{X}); and 3) standard deviation (S.D.). What follows are the statistical methods used to analyze data obtained.

4.2.2 *t*-test of the Difference between Two Groups

To determine whether there were any significant differences between two groups in the level of use of metacognitive English reading strategies between high English reading proficient and low English reading proficient students' questionnaire responses, an independent samples *t*-test was used to analyze each group of strategies and the whole set of strategies.

4.3 Analysis of Quality of Procedures for Coding

Coding is an effective method to analyze the data of verbal protocols such as interviews and observations (Green, 1998). Coding is "the relationship between what are termed task-independent process categories and performance on the task in question" (Green, 1998, p. 69). Subsequently, the researcher qualitatively discussed the emerging themes from the interviews and self-reports of English reading strategies and the in-depth analysis of the observations through think-aloud sessions.

Results

The results and findings are reported accordingly to the research questions. The results of each research question are described in the following order: 1) research question one regarding Thai EFL students report using on the MARSIS when reading English expository texts; 2) research question two regarding the selected students' actual use of strategies when undertaking reading tasks; and 3) research question three regarding the similarities and differences between the use of strategies among HRPSS and LRPSs.

1. Research Question One: What metacognitive reading strategies do Thai EFL students report using the MARSIS when reading English expository texts?

This research revealed that the average score of the overall use of metacognitive reading strategies employed by 84 Thai EFL students was at high level (\bar{X} =3.62, S.D.=1.15).

Table 1

Mean, Standard Deviation, Meaning and Rank of Three Broad Strategies Used by Surveyed Students (N = 84)

| Strategy | Surveyed Students (N = 84) | | | |
|---|----------------------------|------|----------|------|
| | \bar{X} | S.D. | Meaning | Rank |
| Global Reading Strategies (GRS) | 3.57 | 0.49 | High | 2 |
| Problem Solving Reading Strategies (PSRS) | 3.92 | 0.47 | High | 1 |
| Support Reading Strategies (SRS) | 3.38 | 0.54 | Moderate | 3 |

As revealed in the table above, the findings revealed that global reading strategies and problem solving reading strategies were at high level of usage, while support reading strategies were at the moderate level of

usage. The ranking from the highest to the lowest mean scores of the metacognitive reading strategies used by Thai EFL students were problem solving reading strategies the most (\bar{X} =3.92, S.D.=0.47), followed by global reading strategies (\bar{X} =3.57, S.D.=0.49), and support reading strategies the least (\bar{X} =3.38, S.D.=0.54), respectively.

Table 2

Difference in Reading Strategy Used between HRPSs and LRPSs

| Strategy | HRPSs (N=51) | | | | LRPSs (N=33) | | | |
|----------|--------------|------|----------|------|--------------|------|----------|------|
| | \bar{X} | S.D. | Meaning | Rank | \bar{X} | S.D. | Meaning | Rank |
| GRS | 3.86 | 1.38 | High | 2 | 3.26 | 0.84 | Moderate | 3 |
| PSRS | 4.32 | 0.47 | High | 1 | 3.69 | 0.42 | High | 1 |
| SRS | 3.42 | 0.51 | Moderate | 3 | 3.30 | 1.38 | Moderate | 2 |

The HRPSs reported that they used problem solving reading strategies the most (\bar{X} =4.32, S.D.=0.47), followed by global strategies the second most (\bar{X} =3.86, S.D.=1.38), and support strategies the least (\bar{X} =3.42, S.D.=0.51), respectively. However, the LRPSs reported that they used problem solving reading strategies the most (\bar{X} =3.69, S.D.=0.42), followed by support strategies (\bar{X} =3.30, S.D.=1.38), and global strategies (\bar{X} =3.26, S.D.=0.84), respectively.

2. Research Question Two: What metacognitive reading strategies do Thai EFL students employ when undertaking reading tasks?

In the present study, data gathered from classroom observation and semi-structured interviews that learner knowledge has a crucial part to play in the integration of strategies and tasks. Therefore, the current section aims to shed light on the issue of learner knowledge and strategy use. **2.1 High Reading Proficiency Students (HRPSs)**

2.1.1 Case Study One: Jennifer

Jennifer was a 12-year old student, she started learning English. She was the only child of the family. Her father was a manager of a church school from America and her mother was an original Buriram girl. Jennifer recalled this habitual classroom experience as follows:

While the teacher was lecturing, I was casually drawing something like simple geometric figures. When reviewing the lesson some time later, I usually couldn't remember what the

teacher taught in class, but when thinking of what I was drawing in that lesson, for instance, a triangle I drew at that moment, I could manage to recollect what the teacher said. In my senior studies, I no longer make such drawings, but I still move my fingers on the desk, sort of drawing or playing the piano (Self-report, January 11, 2011).

Jennifer was one of the HRPSSs who had developed practical skills in using metacognitive reading strategies to rapidly locate information in expository reading texts. She also preferred to make educated guesses about the meanings of unknown words by using context clues. However, in certain cases where she was provided with insufficient clues, she resorted to a dictionary. One thing that made Jennifer differ from several other participants was that she liked to print out a hard copy of what she read, particularly when she read for class assignments. It was advantageous for her to underline main ideas and take useful notes while reading.

2.1.2 Case Study Two: Hayward

Hayward was 18 at the commencement of the study. He was the eldest among the three children in a farming family. The point to note was that in the interview, Hayward made frequent reference to the use of rote memorization despite different wording used in his accounts.

I have to recite those grammar rules by rote, such as different types of attributive clauses, as I am doing these exercises. Some of the difficult points need to be rememorized later with the help of the notes taken in class. If I still have something unknown, I'll go to ask the teacher for help [...] until I have a complete understanding (Self-report, January 14, 2011).

Hayward adopted a distinctive approach to reading comprehension whereby he preferred to read the whole text for detailed information, rather than merely give responses to comprehension questions. When he had vocabulary difficulty, Hayward chose to consult the dictionary frequently although he sometimes could use enough context clues provided to determine the meanings of unknown words. Like other participants, how Hayward read expository texts depended primarily on the length and organization of the text.

2.1.3 Case Study Three: Boyum

Boyum was 15 at the start of the study. She was a boarding student from a farming family in the countryside. To Boyum, different strategies could be employed depending on the different levels of task difficulty and complexity. She reported,

Doing grammar exercises and understanding model sentences in the textbook, I can easily memorize some simple things (grammar items and models). If they are difficult, I may think about grammatical rules; if more complicated, I'll analyze structures, underlining the subject, object, clauses, and sub-clauses (Self-report, January 15, 2011).

Boyum was another high proficient reader who liked to use a wide range of pre-reading strategies (e.g., noting length and organization, and using typographical aids) to predict what she

was about to read as well as to make a decision on how to best approach the text. With a high level of English proficiency, Boyum expected to understand the text in detail; therefore, she focused on word meanings and ideas presented.

2.1.4 Case Study Four: Kouider

Kouider was 18 when he participated in the study. He had been studying English for 10 years, and considered his overall English and reading proficiency levels as good. At the beginning of the first think-aloud session, having read all comprehension questions, Kouider decided to read the first paragraph only. While doing so, she explained,

I am reading this paragraph only because I think the main idea of the whole text should be embedded in it (Think-aloud, January 17, 2011).

Kouider was a very proficient reader. She chose to read all comprehension questions before using expository English reading strategies to guess the main idea of the whole text. Throughout the interviews and think-aloud sessions, Kouider tended to use several strategies related to the organization of the texts much more often other common strategies, including those dealing with word difficulty. However, when faced with unknown words, she activated her own background knowledge and used context clues to help determine the meanings.

2.2 Low Reading Proficiency Students (LRPSS)

2.2.1 Case Study One: Capella

Capella was a 17-year old student. Her smile like a blossoming flower, and her name really could not have suited her better. Before she actually started to read, Strategy No. 3 "Using prior knowledge" was observed as she articulated from a sample taken from the think-aloud follows:

Understanding this text should not be too difficult because I already know something about the importance of sleep. I know that we should go to bed at 10 pm. and need an average of six hours of sleep a night. Also, there are many problems associated with lack of sleep (Self-report, January 19, 2011).

Capella was considered a less proficient reader, she demonstrated how she used a wide range of strategies as proficient readers did. For instance, she strategically read the first and the last paragraphs of the texts to get some ideas about what she read.

2.2.2 Case Study Two: Langford

Interestingly, Langford was a 18-year old student. He had been studying English for 10 years. He considered his overall English and reading proficiency as good and rated himself as having very high computer skills. In the think-aloud sessions, some global strategies that were commonly used were observed. These include Strategies No. 12 "Deciding what to read closely" and what to ignore and No. 20 "Using typographical aids (e.g., italics)" as illustrated below:

This question asks me to describe when it is time to sleep. I just have to skip these few paragraphs. I think the information in this small blue box will give me the answer. Let me read it more carefully (Think-aloud, January 23, 2011).

Why does each person need different amount of sleep? Well...the title 'Find out how much sleep you need' in bold type seems important. I am reading what it says here. I guess it might help me find a very good answer to this question (Think-aloud, January 23, 2011).

Langford was a less proficient reader who experienced difficulties with vocabulary in the texts. To help alleviate the problem, Langford consulted his English-Thai dictionary; it provided literal translations. In other words, Langford tended to make use of context clues provided only when he was not able to find words in either his dictionaries or other resources or the meanings in Thai did not make sense for the whole sentence.

2.2.3 Case Study Three: Saracho

Saracho was a 18-year old student. She had been studying English for 11 years and considered her overall English and reading proficiency levels as good. While the word he found was in the middle of the paragraph, Saracho decided to read the whole paragraph in order to learn the meaning of the word. Doing so, she explained how he came up with an answer,

Researcher: So what do you think the word "jittery" mean?

Saracho: This sentence says, "Too much caffeine makes you jittery and if you consume it later in the day, the caffeine makes it more difficult to sleep at night." Umm...I think the word "jittery" probably means anxious.

Researcher: Can you tell me how you came up with that meaning?

Saracho: Well...it explains that you will become jittery. Even though I don't know the word, this sentence clearly gives me a good hint. Also, I know a friend who likes to drink coffee, and he usually tells me how he feels because of too much caffeine.

(Think-aloud, January 27, 2011).

Saracho, like other LRPSs, experienced major vocabulary difficulties throughout the think-aloud tasks. However, in her case, her feeling of considerable anxiety was expressed as he was unaware of not only the meanings of unknown words in the texts but also those of words used in some comprehension questions.

2.2.4 Case Study Four: Sternberg

Sternberg was a 17-year old student. He had been studying English for 10 years. He considered his overall English proficiency as good; whereas, his reading ability was rated as fair. Sternberg remarked that he

benefited greatly in strategy construction from his counterparts in the close interaction with each other, as illustrated by the example of Sternberg, he said:

My partner's impact on me was so great that the learning methods used by us were always almost similar. In particular, both of us seemed to take notes in class in similar ways (Self-report, January 29, 2011).

Sternberg's difficulty with reading comprehension was largely attributed to his narrow vocabulary repertoire. When he dealt with word problems, it was indicated that the approach he adopted each time was not consistent. In other words, he attempted to derive word meanings by means of context clues before deciding to consult outside resources (e.g., digital dictionary) and vice versa.

3. Research Question Three: Drawing on the survey, and self-report data, what similarities and differences exist between high reading proficiency students (HRPSs) and low reading proficiency students (LRPSs)?

In order to determine a reading proficiency level difference in the use of individual reading strategies, an independent samples *t*-test for each reading strategy was performed. The significant difference was set at the level of .05 for this study.

Table 4: Differences in Reported Reading Strategy Used between HRPSs and LRPSs

| Strategy | HRPSs (N=51) | | LRPSs (N=33) | | t (N=86) | p- value |
|----------|--------------|------|--------------|------|-------------|----------|
| | \bar{X} | S.D. | \bar{X} | S.D. | | |
| GRS | 3.86 | 1.38 | 3.26 | 0.84 | 0.43 | 0.01* |
| PSRS | 4.32 | 0.47 | 3.69 | 0.42 | 0.43 | 0.01* |
| SRS | 3.42 | 0.51 | 3.30 | 1.38 | 0.17 | 0.01* |

*. The mean difference is significant at the .05 level.

**. The mean difference is significant at the .01 level.

The *t*-test results found that there were statistically significant differences at .05 levels in all of the three subsections reported to be used by the HRPSs and LRPSs.

Discussion and Conclusion

As for perceived use of metacognitive awareness of reading strategies, the average score of overall use of the metacognitive reading strategies was 3.62 on the 5-point Likert scale. According to established strategy usage criteria as described previously, this indicates that Thai high school students show "high" usage of the metacognitive reading strategies when they read expository texts in English. In terms of frequency of

reading strategy use, this result was slightly different from previous studies conducted in EFL learning environments, such as in Korea (Lee, 2007) and in other Asian countries (Al-Nujaidi, 2003; Wu, 2005). For example, Lee (2007) investigated reading strategy use in reading general English texts among 72 Korean EFL college students and reported moderate usage of reading strategies ($\bar{X} = 2.92$ for one group; $\bar{X} = 3.01$ for the other group, on 5-point Likert scale). Al-Nujaidi (2003) examined the use of reading strategies among 225 EFL first-year university students in Saudi Arabia and reported moderate usage of reading strategies ($\bar{X} = 3.80$, on 6-point Likert scale). Wu (2005) investigated the use of reading strategies among 204 Taiwanese EFL college students and reported moderate usage of the reading strategies ($\bar{X} = 3.08$, on 5 point Likert scale). Wu used the SORS to measure reading strategy use just as this study had while Al-Nujaidi modified the SORS for his own purpose and Lee developed her own measure for her own purpose. If the difference in measures is not accounted for, this study found a much more frequent use of the reading strategies by Korean college students compared to the results of other studies. One possible explanation for this result is that current trends in universities in Korea, where authentic English textbooks are popular in a class and academic reading comprehension ability is considered very important for academic success, might make the Korean college students use reading strategies actively when they read authentic expository/technical texts in English. In particular, even though Lee's (2007) study was conducted with very similar target participants to this study's participants, the differences in the results between Lee's study and this study seem to show that there could be differences in metacognitive reading strategy use of Thai EFL high school students between reading general English texts and reading expository texts.

The findings of the current study are consistent with those of previous studies which conclude that second or foreign language learners use metacognitive strategies to foster their academic reading process (Anderson, 2003; O'Malley & Chamot, 1990; Pressley & Afflerbach, 1995).

In terms of the selected students' actual use of metacognitive awareness of reading strategies, while metacognitive reading strategies were very useful for comprehension, the participants in this study needed additional strategies to cope with their expository English reading process. This aspect resonates with the argument of previous work (Pressley, 2000; Piyanukool, 2001) that despite a number of similarities they share, metacognitive reading comprehension is more complex than other sources reading comprehension and includes several fundamental differences.

The differences between high reading proficiency students (HRPSs) and low reading proficiency students (LRPSs), the results based on multiple sources of data in this study indicated that how HRPSs and LRPSs employed each metacognitive strategy were different from each other in terms of both frequency and quality of use. Specifically, as evidenced from the MARSIS data, the HRPSs showed higher reported usage for metacognitive English reading strategies than the LRPSs. Additionally, the qualitative data revealed that the latter group generally struggled with vocabulary, reading skills and using strategies. The former group, on the other hand, was more able to monitor their cognitive processes. Not only were they aware of which strategies to use and how to use them, but they also tended to be good at regulating the use of such strategies while reading. This difference between the two groups was echoed in previous research studies (Alexander & Jetton,

2000; Pressley, 2000; Piyanukool, 2001) which established that awareness and use of reading strategies are associated with and contribute to superior reading comprehension and thereby successful learning.

Suggestions for Further Research

1. It would be interesting to explore the manner in which readers use strategies when they read for different purposes such as academic and non-academic purposes.
2. It should explore whether there is also a relationship between L1 and L2 in reading performance such as reading English texts in English and in Thai.
3. By reversing the order of research instruments, future research could verify whether the use of strategy varies according to the preceding instrument.
4. It should discover whether and to what extent these other variables play a role in students' use of strategies in the English reading environment.

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