

กลวิธีการอ่านของนักศึกษาชั้นปีที่ 3 ที่มีระดับความสามารถในการอ่านแตกต่างกัน
**Reading Strategies among Thai 3rd Year Undergraduate Students on Different Levels of
Reading Proficiency**

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บทคัดย่อ

การศึกษาค้นคว้านี้มีวัตถุประสงค์เพื่อศึกษาถึงการใช้กลวิธีการอ่านของนักศึกษา และหาผลกระทบของระดับความสามารถในการอ่านที่แตกต่างกันที่มีต่อการใช้กลวิธีการอ่าน โดยได้ทำการศึกษากับนักศึกษาชั้นปีที่ 3 มหาวิทยาลัยขอนแก่น ซึ่งนักศึกษาต้องตอบแบบสอบถามที่ได้ทำการปรับปรุงจากแบบสอบถามของ Sheorey and Mokhtaria (2001) ซึ่งแบบสอบถามดังกล่าวนี้ได้แบ่งคำถามออกเป็น 3 กลุ่มใหญ่ ๆ คือ Global reading strategies, Problem solving strategies และ Support strategies ผลการวิจัยพบว่านักศึกษาส่วนใหญ่ใช้กลวิธีการอ่านในกลุ่ม Problem solving strategies มากที่สุด รองลงมาคือกลวิธีการในกลุ่ม Global reading strategies และ Support strategies ตามลำดับ ผลการวิจัยพบว่าความถี่ในการใช้กลวิธีการอ่านและระดับความสามารถในการอ่านมีความสัมพันธ์กันอย่างมีนัยสำคัญ

Abstract

In this article, the differences in the reported use of reading strategies of 3rd year-Thai students when reading academic materials were reported. The aims of this study were to survey the frequent use of reading strategies and to determine how it is affected by the student's reading proficiency level. The participants were 549 third year students studying at Khon Kaen University, Thailand, who completed a survey of reading strategies (SORS) which was developed by Sheorey and Mokhtaria (2001). It consisted of 3 main categories: global reading strategies, problem solving strategies, and support strategies. Results of the study indicated that problem solving strategies were the most frequently used, followed by global reading strategies and support strategies respectively. Significant variation in the frequency of the students' use of reading strategies in the three main categories was found according to the level of their reading proficiency.

Keywords: Reading strategies, Academic reading, Reading proficiency

Introduction

In a review of the current developments in second language reading research, Grabe (1991) has pointed out that the crucial importance of the reading skill in academic contexts has led to considerable research on reading in a second language. The last two decades, in particular, has been a time of much first and second language research, resulting in many new insights for reading instruction.

Reading has been defined as the process of constructing meaning through the dynamic interaction among: (1) the reader's existing knowledge; (2) the information suggested by the text being read; and (3) the context of the reading situation (Pikulski, 1997). This concept has offered great insights as to how learners achieve comprehension while reading. Research works on L2 reading indicated that reading is an interactive meaning-making process in which readers utilize a large number of strategies to achieve the goal of reading comprehension (Alderson, 2000; Anderson, 1999; Carrell, 1988). Consequently, many L2 researchers have made attempts at identifying various reading strategies for instance; Anderson, 1991; Block, 1986; Zhang & Wu, 2009. All began to recognize the significant role of reading strategies in reading comprehension.

Studies on reading strategy use have discovered that successful readers generally reported employing higher frequency of reading strategy use (e.g. Hosenfeld, 1977; Sheorey & Mokhtari, 2001; Lau, 2006), which may enable them to use reading strategies more effectively and efficiently than their less successful peers. Farrell (2001) and Zhang (2008) have pointed out that reading strategies can be taught and that as students' knowledge about reading strategies and strategy use is developed, they will become better readers. At present, the educational system in Thailand is undergoing reforms. Students learning English as a foreign language (EFL) are encouraged to be autonomous learners (Ampra & Thaitae, n.d.). It is anticipated that findings from this study could help teachers identify appropriate strategies to facilitate the reading of a foreign language by Thai students. Teachers of English should implement reading strategy instruction in order to help students form good reading habits and be autonomous readers. When teachers know what strategies students are employing and how they are using them in different contexts, teachers can better understand the sources of students' problems with reading strategies and be able to decide on students' learning needs and adjust their teaching procedures accordingly (Cohen, 1998; Zhang & Wu, 2009). Although reading strategy use has been recognized in the previous research works, very few studies in this area have been conducted in Thailand, particularly with undergraduate students.

This study was conducted in Thailand, where the English language now plays an important role as in many other developing countries. New technology and the adoption of the internet have resulted in a major transition in terms of business, education, science, and technological progress, all of which demand high proficiency in English (Wiriyaichitra, 2002). In the Thai educational system, English is a foreign language that students must study as a compulsory subject from primary school onwards (Ministry of Education, 2002). Moreover, passing an English examination is a prerequisite for further education, especially for a tertiary degree. Many university courses require students to read academic materials written in English, so English proficiency is an extremely important requirement for the students. Students studying in the tertiary level begin reading lengthy and authentic academic texts starting from the second year of their study. In spite of its importance, Thai students' proficiency in English is low because students rarely use it outside the classroom. According to Silapasatham (1999), teaching and learning in Thailand is in crisis because a great number of university graduates cannot use English effectively. For the reasons mentioned, the current study endeavoured to fill this void by comparing the academic reading strategies used by students within three reading proficiency groups of Thai undergraduates. The main aim of this study is to identify reading behaviour tendencies of this group of Thai students. From this study, it is hoped to better understand their needs, and help them develop appropriate strategies that may enhance their reading ability.

Review of Literature

Over the last two decades, most research on L1, L2, and foreign language (FL) reading has focused on the strategies that readers deploy in processing written input (Zhang and Wu, 2009). Reading strategies have been defined as "the mental operations involved when readers approach a text effectively and make sense of what they read (Barnett, 1989, p. 66)." Paris, Lipson, and Wixson (1983, p. 293) have seen reading strategies as "deliberate cognitive steps that learners can take to assist in acquiring, storing, and retrieving new information and that therefore can be accessed for a conscious use." As a result, employing reading strategies indicates how readers conceive a task, what they do to make meaning from texts, and what they do when encountering problems with reading (Block, 1986; Macaro & Erler, 2008; Zhang & Wu, 2009).

Reading proficiency has been seen as one of the factors that has played a role in influencing the use of reading strategies. Researchers in foreign language reading (e.g. Hosenfeld, 1977; Kletzien, 1991; Zhang and Wu, 2009) have demonstrated that strategies used by more proficient and less proficient readers are different, with greater use of strategies among high proficient readers.

One of the most well-known studies of proficiency level and strategy use using a think-aloud procedure was conducted by Hosenfeld (1977) who studied reading strategies used by 40 students (20 successful and 20 non-successful readers) in New York. The purpose of this study was to discover the differences that existed between the strategies of these two groups of students. The successful students, for example, kept the meaning of the passage in mind while reading, read in broad phrases, skipped inconsequential or less important words, and had a positive self-concept as a reader. On the contrary, the unsuccessful students lost the meaning of the sentences when decoded, read in short phrases, and seldom skipped unimportant words.

Lau (2006) also employed a think-aloud method to explore the differences between Chinese good and poor readers in their strategy use. The findings of this study indicated that good readers used more strategies and had better ability and knowledge of strategy use than did poor readers.

Kletzien (1991) carried out a study on reading strategy use using self-reports with 48 students (24 good students and 24 poor students) studying in 10th grade in the U.S. All subjects reported depending heavily on using key vocabulary, rereading, making inferences, and using previous experience in constructing responses while reading three passages. The findings revealed that the two groups used the same type and number of strategies on the easy passage, but as the passage difficulty increased, good students used more types of strategies and used strategies more often than the poor students did.

Although the results revealed by many researchers (e.g. Hosenfeld, 1977; Kletzien, 1991; Lau, 2006) cast light on the relationships between reading strategy use and reading proficiency level, in the context of EFL education in Thailand, a small number of those research works have been conducted to investigate reading strategies employed by Thai students studying at the tertiary level. Consequently, more studies need to be conducted in order to draw a conclusion from these relationships. To fill the gap, this study attempted to discover the relationship between the differences of students' reading proficiency levels and their strategy use by comparing the reading strategies employed by high, moderate and low reading proficiency students studying at Khon Kaen University.

Research questions

The present study was undertaken in order to describe the frequency of reading strategy use employed by the subjects. The following research questions guide the study:

- 1) Does reading proficiency level affect the use of reading strategies?
- 2) Do students with different reading proficiency levels report employing reading strategies with different frequency?

Method

Participants

The study was carried out with Thai 549 third-year students studying at Khon Kaen University, Thailand. All of them were full-time students. Their average age was 20 years old, and they had previously studied English at least for 13 years. Within this group, there were 128 students with high level of reading proficiency, 320 students with moderate level, and 101 students with low level. For the exact numbers of students, see Table 1. Before collecting the data, the students were given a brief, informative oral overview of the purpose of the study. All of them took the ERP-TEST (English Reading Proficiency Test) in order to group them under three reading proficiency levels: high, moderate, and low.

Table 1 Distribution of Subjects by Reading Proficiency Level

Reading Proficiency Level	Number of Students
High	128
Moderate	320
Low	101
Total	549

Research Instruments

There were two research instruments employed in this study: 1) English Reading Proficiency Test (ERP-TEST), and 2) The Survey of Reading Strategies (SORS). ERP-TEST was used to determine the reading proficiency of the subjects, while SORS was used to survey the reading strategies that subjects perceived themselves as using.

1) English Reading Proficiency Test (ERP-TEST)

ERP-TEST was constructed specifically to use in the present study in order to divide the subjects into three different proficiency groups. The test was designed to measure students' English reading proficiency. The test was made up of four reading passages with 50 comprehension question items. After reading each passage, the students were required to answer the questions for which the question formats varied for each reading task, e.g. sorting events in order, True/False (Dichotomous items), and matching. Various types of test formats were selected for use because, it is considered that there is no one best format for reading tests, and each format has its own strengths and weaknesses (Alderson, 2000).

2) Survey of Reading Strategies (SORS)

The data for this study were collected through the 'Survey of Reading Strategies (SORS)' which was developed by Sheorey and Mokhtaria (2001). SORS contains 32 short statements concerning the use of reading strategies, each of which uses a 4-point Likert scale ranging from 1 ("Never or almost never true of me") to 4 ("Always or almost always true of me"). Each statement describes the use of one strategy. These 32 statements are grouped into three main categories: Global, Problem Solving, and Support. Before actual use, SORS was translated into Thai language so that the participants would not misinterpret or misunderstand the questions which may distract the actual responses.

Data Collection and Data Analysis

To collect the data, copies of ERP-TEST with answer sheets and copies of SORS were prepared for the students. Data collection was conducted in the subjects' regular classrooms during regular class time with the help of the classroom instructor. On the day of data collection, students were informed at the beginning that responses to the ERP-TEST would not affect course grades and there were no right or wrong answers in the questionnaire. All subjects were requested to do the ERP-TEST first, and complete the SORS immediately after finishing taking the REP-TEST. They were asked to express their honest opinion on each SORS statement they used while doing the ERP-TEST. They were given one hour and twenty-five minutes for taking the test, and another ten minutes for completing the questionnaire. The 'Third Technique' as suggested by Madsen (1983) was employed in managing the students' test scores in order to identify the students' level of reading proficiency.

The data obtained through the questionnaire were analyzed using descriptive statistical procedures as well as an analysis of variance (ANOVA) in order to investigate whether significant differences existed among students in different groups of reading proficiency level with respect to reported reading strategy use while reading academic texts. In examining

reading strategy use among these students on the reading strategy questionnaire scale, which ranges from 1 to 4, three levels of strategy use as adapted from Oxford and Burry-Stock's usage levels (1995, p.12) were identified for general reading strategy use: high (mean of 3.00 or higher), medium (mean of 2.00-2.99), and low (1.00-1.99).

Results

The result obtained for the two questions posed in the study are shown below. Table 1 demonstrates the results obtained for the first research question: Does reading proficiency level affect the use of reading strategies? Based on the results from ANOVA, the students' reading proficiency level had a significant influence on the use of all three main reading strategy categories.

Table 1 Students' Use of Strategies in the Three Main Categories according to Levels of Reading Proficiency

Strategy Categories	Levels of Reading Proficiency						Comments	
	High (n=128)		Moderate (n=320)		Low (n=101)		Significance Level	Pattern of Variation
	(\bar{X})	S.D.	(\bar{X})	S.D.	(\bar{X})	S.D.		
GLOB Cat.	2.74	.47	2.46	.46	2.13	.56	p<.01	High>Moderate>Low
PROB Cat.	2.75	.48	2.47	.50	2.15	.59	p<.01	High>Moderate>Low
SUP Cat.	2.63	.46	2.42	.46	2.13	.54	p<.01	High>Moderate>Low

The students with high reading proficiency level used more strategies from all three categories compared with the students with moderate and low levels of reading proficiency. The result from post-hoc Scheffe test showed that significant variations were found among the students with different levels of reading proficiency. The findings demonstrate that high-proficiency students reported employing reading strategies more frequently than those with moderate and low proficiency levels. Similarly, the moderate proficiency students reported employing more frequent use of those strategies than those with low proficiency level. Moreover, the results show that the means of the strategies from GLOB and PROB categories that the high reading proficiency students employed was a bit different. This means, GLOB and PROB strategies could help student understand the target language. Some strategies that students reported using frequently were '*getting back on the track when losing concentration*', '*picturing or visualizing information to help remember what is read*', and '*using typographical aids like bold face and italics to identify key information*'.

Another objective of this study was to determine whether learners with different level of reading proficiency employ reading strategies differently. From statistical analysis, it revealed that some types of strategies were significantly influenced by this variable. Tables 2 and 3 demonstrate the results obtained for the second research question: *Do students with different reading proficiency levels report employing reading strategies with different frequency?*

As Table 2 shows, the means of individual items ranged from a medium of 2.57 to a low of 1.84 for students with a low level of reading proficiency (overall mean = 2.14), 2.02-2.91 for students with a moderate level of reading proficiency (overall mean = 2.45), and a high of 3.11 to a low of 2.23 for students with a high level of reading proficiency (overall mean = 2.70), indicating a moderate overall use of reading strategies according to established strategy use criteria described earlier. For low reading proficiency students, 7 of the 32 strategies (21.88%) fell in the low level or strategy use (mean below 2.00), while the remaining 25 strategies (78.12%) had means 2.00 – 3.00, indicating medium level of strategy use. For moderate reading proficiency students, unexpectedly, all of the strategies were reported to be used in the moderate level of strategy use.

For high reading proficiency students, only one of the 32 strategies (3.13%) fell in the high level of strategy use (mean of 3.00 or above), while the remaining 31 strategies (96.87%) fell in the moderate level or strategy use. As expected, no high level students reported to employ reading strategies in the low level. Students with a high level of reading proficiency had higher mean scores (indicative of their more frequent reported use of strategies than students with moderate and low levels) for all of the 32 strategies. Moreover, the mean of all 32 strategies varied significantly ($p < 0.05$). When taking a close look at the three strategy categories, the means for all GLOB, PROB and SUP categories also varied significantly ($p < 0.05$), and revealed a medium strategy use (means 2.00 – 3.00) as shown in Table 2.

Table 2 Differences in reported reading strategy use among high, moderate, and low reading proficiency students

Strategy	Low (n=101)		Moderate (n=320)		High (n=128)		p-value
	\bar{x}	S.D.	\bar{x}	S.D.	\bar{x}	S.D.	
GLOB 1: I have a purpose in mind when I read.	2.02	.71	2.32	.69	2.73	.78	.000
GLOB 2: I think about what I know to help me understand what I read.	2.13	.69	2.44	.73	2.77	.70	.000
GLOB 3: I preview the text to see what it's about before reading it.	2.18	.85	2.43	.78	2.78	.78	.000
GLOB 4: I think about whether the content of the text fits my reading purpose.	1.96	.79	2.23	.73	2.53	.88	.000
GLOB 5: I skim the text first by noting characteristics like length and organization.	2.25	.84	2.64	1.9	2.79	.78	.026
GLOB 6: I decide what to read closely and what to ignore.	2.11	.80	2.37	.84	2.59	.78	.000
GLOB 7: I use tables, figures, and pictures in text to increase my understanding.	2.33	.84	2.61	.89	2.80	.86	.000
GLOB 8: I use context clues to help me better understand what I read.	1.97	.75	2.37	.76	2.95	2.71	.000
GLOB 9: I use typographical aids like boldface and italics to identify key information.	2.29	.88	2.63	.80	2.91	.78	.000
GLOB 10: I critically and analyze and evaluate the information presented in the text.	2.01	.81	2.28	.73	2.54	.71	.000
GLOB 11: I check my understanding when I come across conflicting information.	2.08	.83	2.47	.74	2.74	.69	.000
GLOB 12: I try to guess what the material is about when I read.	2.31	.86	2.71	.80	2.87	.75	.000
GLOB 13: I check to see if my guesses about the text are right or wrong.	2.15	.85	2.43	.79	2.59	.77	.000
PROB 1: I read slowly but carefully to be sure I understand what I'm reading.	2.23	.80	2.54	.73	2.80	.80	.000
PROB 2: I try to get back on the track when I lose concentration.	2.28	.91	2.63	.80	2.97	.77	.000
PROB 3: I adjust my reading speed according to what I'm reading.	1.91	.78	2.22	.78	2.59	.84	.000
PROB 4: When text becomes difficult, I pay closer attention to what I'm reading.	2.09	.80	2.32	.79	2.59	.84	.000
PROB 5: I stop from time to time and think about what I'm reading.	2.10	.79	2.46	.71	2.74	.81	.000
PROB 6: I try to picture or visualize information to help remember what I read.	2.19	.82	2.53	.83	2.91	.76	.000
PROB 7: When text becomes difficult, I reread to increase my understanding.	2.16	.83	2.46	.81	2.69	.81	.000
PROB 8: I try to guess the meaning of unknown words or phrases.	2.29	.86	2.59	.82	2.75	.78	.000
SUP 1: I take notes while reading to help me understand what I read.	1.92	.72	2.02	.77	2.23	.80	.005
SUP 2: When text becomes difficult, I read aloud to help me understand what I read.	1.96	.80	2.27	.80	2.44	.88	.000
SUP 3: I summarize what I read to reflect on important information in the text.	1.84	.77	2.14	.75	2.39	.80	.000
SUP 4: I discuss what I read with others to check my understanding.	1.94	.87	2.31	.78	2.41	.86	.000
SUP 5: I underline or circle information in the text to help me remember it.	2.22	.86	2.63	.80	2.79	.85	.000
SUP 6: I use reference materials such as dictionaries to help me understand what I read.	2.57	.94	2.91	.89	3.11	.85	.000

SUP 7: I paraphrase (restate ideas in my own words) to better understand what I read.	2.10	.87	2.45	.77	2.66	.77	.000
SUP 8: I go back and forth in the text to find relationships among ideas in it.	2.10	.81	2.42	1.35	2.67	.67	.001
SUP 9: I ask myself questions I like to have answered in the text.	2.05	.82	2.25	.73	2.52	.72	.000
SUP 10: When reading, I translate from English into my native language.	2.46	.89	2.69	.84	2.83	.89	.005
SUP 11: When reading, I think about information in both English and my mother tongue.	2.23	.87	2.51	.78	2.84	.80	.000
GLOB Category	2.14	.56	2.46	.46	2.74	.47	.000
PROB Category	2.15	.59	2.47	.51	2.75	.48	.000
SUP Category	2.13	.54	2.42	.46	2.63	.46	.000
Overall Reading Strategies	2.14	.54	2.45	.44	2.70	.41	.000

Table 3 shows the top five and bottom five individual reading strategy preferences of students with three different levels of reading proficiency.

Table 3 Reported reading strategies used most and least by high, moderate, and low reading proficiency students

Low proficiency students	Moderate proficiency students	High proficiency students
Reading Strategy	Reading Strategy	Reading Strategy
SUP 6: I use reference materials such as dictionaries to help me understand what I read. ($\bar{x} = 2.57$)	SUP 6: I use reference materials such as dictionaries to help me understand what I read. ($\bar{x} = 2.91$)	SUP 6: I use reference materials such as dictionaries to help me understand what I read. ($\bar{x} = 3.11$)
SUP 10: When reading, I translate from English into my native language. ($\bar{x} = 2.46$)	GLOB 12: I try to guess what the material is about when I read. ($\bar{x} = 2.71$)	PROB 2: I try to get back on the track when I lose concentration. ($\bar{x} = 2.97$)
GLOB 7: I use tables, figures, and pictures in text to increase my understanding. ($\bar{x} = 2.33$)	SUP 10: When reading, I translate from English into my native language. ($\bar{x} = 2.60$)	GLOB 8: I use context clues to help me better understand what I read. ($\bar{x} = 2.95$)
GLOB 12: I try to guess what the material is about when I read. ($\bar{x} = 2.31$)	GLOB 5: I skim the text first by noting characteristics like length and organization. ($\bar{x} = 2.64$)	PROB 6: I try to picture or visualize information to help remember what I read; and GLOB 9: I use typographical aids like boldface and italics to identify key information. ($\bar{x} = 2.91$)
GLOB 9: I use typographical aids like boldface and italics to identify key information, and PROB 8: I try to guess the meaning of unknown words or phrases. ($\bar{x} = 2.29$)	PROB 2: I try to get back on the track when I lose concentration; SUP 5: I underline or circle information in the text to help me remember it; and GLOB 9: I use typographical aids like boldface and italics to identify key information. ($\bar{x} = 2.63$)	GLOB 12: I try to guess what the material is about when I read. ($\bar{x} = 2.87$)
PROB 2: I try to get back on the track when I lose concentration. ($\bar{x} = 2.28$)	GLOB 7: I use tables, figures, and pictures in text to increase my understanding. ($\bar{x} = 2.61$)	SUP 11: When reading, I think about information in both English and my mother tongue. ($\bar{x} = 2.84$)
GLOB 5: I skim the text first by noting	PROB 8: I try to guess the meaning of	SUP 10: When reading, I translate from

characteristics like length and organization. (\bar{x} = 2.25)	unknown words or phrases. (\bar{x} = 2.59)	English into my native language. (\bar{x} = 2.83)
PROB 1: I read slowly but carefully to be sure I understand what I'm reading., and SUP 11: When reading, I think about information in both English and my mother tongue. (\bar{x} = 2.23)	PROB 1: I read slowly but carefully to be sure I understand what I'm reading. (\bar{x} = 2.54)	PROB 1: I read slowly but carefully to be sure I understand what I'm reading; and GLOB 7: I use tables, figures, and pictures in text to increase my understanding. (\bar{x} = 2.80)
SUP 5: I underline or circle information in the text to help me remember it. (\bar{x} = 2.22)	PROB 6: I try to picture or visualize information to help remember what I read. (\bar{x} = 2.53)	GLOB 5: I skim the text first by noting characteristics like length and organization; and SUP 5: I underline or circle information in the text to help me remember it. (\bar{x} = 2.79)
PROB 6: I try to picture or visualize information to help remember what I read. (\bar{x} = 2.19)	SUP 11: When reading, I think about information in both English and my mother tongue. (\bar{x} = 2.51)	GLOB 3: I preview the text to see what it's about before reading it. (\bar{x} = 2.78)
GLOB 3: I preview the text to see what it's about before reading it. (\bar{x} = 2.18)	GLOB 11: I check my understanding when I come across conflicting information. (\bar{x} = 2.47)	GLOB 2: I think about what I know to help me understand what I read. (\bar{x} = 2.77)
PROB 7: When text becomes difficult, I reread to increase my understanding. (\bar{x} = 2.16)	PROB 5: I stop from time to time and think about what I'm reading; and PROB 7: When text becomes difficult, I reread to increase my understanding. (\bar{x} = 2.46)	PROB 8: I try to guess the meaning of unknown words or phrases. (\bar{x} = 2.75)
GLOB 13: I check to see if my guesses about the text are right or wrong. (\bar{x} = 2.15)	SUP 7: I paraphrase (restate ideas in my own words) to better understand what I read. (\bar{x} = 2.45)	PROB 5: I stop from time to time and think about what I'm reading; and GLOB 11: I check my understanding when I come across conflicting information. (\bar{x} = 2.74)
GLOB 2: I think about what I know to help me understand what I read. (\bar{x} = 2.13)	GLOB 2: I think about what I know to help me understand what I read. (\bar{x} = 2.44)	GLOB 1: I have a purpose in mind when I read. (\bar{x} = 2.73)
GLOB 6: I decide what to read closely and what to ignore. (\bar{x} = 2.11)	GLOB 3: I preview the text to see what it's about before reading it; and GLOB 13: I check to see if my guesses about the text are right or wrong. (\bar{x} = 2.43)	PROB 7: When text becomes difficult, I reread to increase my understanding. (\bar{x} = 2.69)
PROB 5: I stop from time to time and think about what I'm reading; SUP 7: I paraphrase (restate ideas in my own words) to better understand what I read, and SUP 8: I go back and forth in the text to find relationships among ideas in it. (\bar{x} = 2.10)	SUP 8: I go back and forth in the text to find relationships among ideas in it. (\bar{x} = 2.42)	SUP 8: I go back and forth in the text to find relationships among ideas in it. (\bar{x} = 2.67)
PROB 4: When text becomes difficult, I pay closer attention to what I'm reading. (\bar{x} = 2.09)	GLOB 6: I decide what to read closely and what to ignore; and GLOB 8: I use context clues to help me better understand what I read. (\bar{x} = 2.37)	SUP 7: I paraphrase (restate ideas in my own words) to better understand what I read. (\bar{x} = 2.66)
GLOB 11: I check my understanding when I come across conflicting information. (\bar{x} = 2.08)	GLOB 1: I have a purpose in mind when I read, and PROB 4: When text becomes difficult, I pay closer attention to what I'm	PROB 3: I adjust my reading speed according to what I'm reading; GLOB 6: I decide what to read closely and what to ignore; PROB 4:

	reading. ($\bar{x} = 2.32$)	When text becomes difficult, I pay closer attention to what I'm reading; and GLOB 13: I check to see if my guesses about the text are right or wrong. ($\bar{x} = 2.59$)
SUP 9: I ask myself questions I like to have answered in the text. ($\bar{x} = 2.05$)	SUP 4: I discuss what I read with others to check my understanding. ($\bar{x} = 2.31$)	GLOB 10: I critically and analyze and evaluate the information presented in the text. ($\bar{x} = 2.54$)
GLOB 1: I have a purpose in mind when I read. ($\bar{x} = 2.02$)	GLOB 10: I critically and analyze and evaluate the information presented in the text. ($\bar{x} = 2.28$)	GLOB 4: I think about whether the content of the text fits my reading purpose. ($\bar{x} = 2.53$)
GLOB 10: I critically and analyze and evaluate the information presented in the text. ($\bar{x} = 2.01$)	SUP 2: When text becomes difficult, I read aloud to help me understand what I read. ($\bar{x} = 2.27$)	SUP 9: I ask myself questions I like to have answered in the text. ($\bar{x} = 2.52$)
GLOB 8: I use context clues to help me better understand what I read. ($\bar{x} = 1.97$)	SUP 9: I ask myself questions I like to have answered in the text. ($\bar{x} = 2.25$)	SUP 2: When text becomes difficult, I read aloud to help me understand what I read. ($\bar{x} = 2.44$)
SUP 2: When text becomes difficult, I read aloud to help me understand what I read, and GLOB 4: I think about whether the content of the text fits my reading purpose. ($\bar{x} = 1.96$)	GLOB 4: I think about whether the content of the text fits my reading purpose. ($\bar{x} = 2.23$)	SUP 4: I discuss what I read with others to check my understanding. ($\bar{x} = 2.41$)
SUP 4: I discuss what I read with others to check my understanding. ($\bar{x} = 1.94$)	PROB 3: I adjust my reading speed according to what I'm reading. ($\bar{x} = 2.22$)	SUP 3: I summarize what I read to reflect on important information in the text. ($\bar{x} = 2.39$)
SUP 1: I take notes while reading to help me understand what I read. ($\bar{x} = 1.92$)	SUP 3: I summarize what I read to reflect on important information in the text. ($\bar{x} = 2.14$)	SUP 1: I take notes while reading to help me understand what I read. ($\bar{x} = 2.23$)
PROB 3: I adjust my reading speed according to what I'm reading. ($\bar{x} = 1.91$)	SUP 1: I take notes while reading to help me understand what I read. ($\bar{x} = 2.02$)	
SUP 3: I summarize what I read to reflect on important information in the text. ($\bar{x} = 1.84$)		

Table 3 shows the top five and bottom five individual reading strategy preferences of students with high, moderate, and low levels of reading proficiency arranged in descending order by their mean frequency scores in order to make it easier to see the whole picture of students' reported frequency of reading strategy use. The result shown in Table 3, which was found interesting, was that the strategy which was reported to be used the most frequently among three groups of students was the same strategy (SUP 6: I use reference materials such as dictionaries to help me understand what I read.). While SUP 6 was reported to be used the most frequently, SUP 1 (I take notes while reading to help me understand what I read.) was reported to be used the least frequently among students with moderate and high reading proficiency level. Moreover, it was one of the bottom five individual reading strategies which students with low level of reading proficiency reported to use. This indicates that Thai students give a lot of precedence to vocabulary. That is, students spend much time on the meaning of new vocabulary. This habit causes them to spend more time on each reading. If they often use this strategy, they will miss

practicing some strategies which can help them save time in reading, such as guessing the meaning of unknown words. Although taking note is one of the most useful techniques which is employed more often in class by university students, it is clear from the finding of this study that the students made very little use of this technique in reading. It may be reasoned that the students knew that taking note was very necessary in classroom setting but they did not realized that it was also useful in reading.

Discussion and Conclusion

This study was carried out in order to investigate the 3rd - year students' use of reading strategies, which was measured through their responses to the strategy questionnaire. It attempted to explore whether there were any significant differences in the reported use of reading strategies among students with different levels of reading proficiency while reading academic materials. Four interesting findings revealed from the results are worthy of special note. These findings are summarized below.

1. When taking a closer look at the Table 3, SUP 6 (I used reference materials such as dictionaries to help me understand what I read.) was reported to be used the most frequently among the students with different levels of reading proficiency.
2. GLOB 12 (I try to guess what the material is about when I read.) was reported to be used as one of the top five individual reading strategy preferences among students with three different levels of reading proficiency.
3. SUP 1 (I take notes while reading to help me understand what I read.) and SUP 3 (I summarize what I read to reflect on important information in the text.) were reported to be used as one of the bottom five individual reading strategy preferences among students with three different levels of reading proficiency. Unexpectedly, both students with moderate and high levels of reading proficiency reported to employ SUP 1 the least frequently.
4. Table 2 shows that high reading proficiency students reported employing all 32 strategies more frequently than moderate and low reading proficiency students.

The findings mentioned above are worthy of further discussion. First, from the study, it can be generalized that dictionaries play an important role in language learning of Thai students. Consequently, Thai students may not be successful in reading without consulting the dictionary. Furthermore, the results are consistent with the general tenor of previous studies on reading strategy use and proficiency level (e.g. Hosenfeld 1977; Kletzien 1991; Lau 2006), the analysis of the differences in reading strategy use by reading proficiency level showed that students with high level of reading proficiency reported employing strategies more frequently than did the students with moderate, and low levels of reading proficiency. It is hard to summarize whether students become high level students because they employ strategies frequently, or they employ strategies more often because they are high proficiency students. This is because the relationship between reading strategy use and reading proficiency level is two-directional. However, we can conclude that reading proficiency levels and the use of reading strategies have an influence on each other.

Second, some useful strategies as taking notes while reading and summarizing what is read are not employed frequently among Thai students. This reflects that the students are not trained enough to use efficient strategies. Consequently, they will lack many useful skills, not only for language learning but also for tertiary level studying.

Finally, it is found that the students used problem solving strategies more often than the other strategies. Support strategies were reported to be the least frequently used. It is also found that there were significant differences in the use of all three categories by students with high, moderate, and low levels of reading proficiency. However, from Table 2, it can be seen that the reported use of reading strategies in each category was in the medium range. This means the students on the whole did not use reading strategies very frequently while reading. However, it is important for students to be aware of employing reading strategies when reading academic materials. The students would benefit greatly in employing strategies in reading; therefore, they would also benefit from training in the use of reading strategies. Moreover, some of these strategies would be new to some students, it may be the important duty of language teachers to recognize which strategies may be more appropriate for their students. The more the teachers know about the differences of their students, the more the teachers can provide appropriate strategies for their reading classes.

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