# ทารนำทลวิธีทารอ่านมาใช้ในทารอ่านภาษาอังทฤษเชิงวิชาการ Use of Reading Strategies in English Academic Reading

รักชนก แสงภักดีจิต<sup>1</sup>\*

<sup>1</sup>ผู้ช่วยศาสตราจารย์ สาขาวิชามนุษยศาสตร์และสังคมศาสตร์ประยุกต์ มหาวิทยาลัยขอนแก่น วิทยาเขตหนองคาย จังหวัดหนองคาย 43000

# าเทค<mark>ั</mark>ดย่อ

งานวิจัยครั้งนี้มีจุดมุ่งหมายเพื่อสำรวจกลวิธี<mark>ที่น</mark>ักศึกษาระดับปริญญาตรีใช้ในการพัฒนาทักษะในการ อ่านเชิงวิชาการ บทความนี้นำเสนอในรูปแบบของการวิจัยเชิงคุณภาพ ซึ่งได้อธิบายการใช้กลวิธีในการอ่านเชิง วิชาการของนักศึกษาไว้อย่างชัดเจน ผู้วิจัยได้ทำการเก็บข้อมูลจากนักศึกษาคณะต่าง ๆ ของมหาวิทยาลัย ขอนแก่น จำนวน 40 คน โดยการสัมภาษณ์ เทคนิค "open and axial coding" ได้นำมาใช้ในการวิเคราะห์ ข้อมูลที่ได้จากการสัมภาษณ์ ผลการศึกษา พบว่า กลวิธีการอ่านที่นักศึกษาใช้ในการอ่านบทความทางวิชาการ สามารถแบ่งออกได้เป็น 2 กลุ่มหลัก คือ 1) กลวิธีการอ่านเพื่อความเข้าใจ และ 2) กลวิธีเพิ่มพูนความเข้าใจใน การอ่าน ซึ่งภายใต้ทั้งสองกลุ่มนั้น จะพบว่า มีกลวิธีการอ่านแยกย่อยได้ทั้งหมด 39 กลวิธี นอกจากนี้ ยังพบว่า กลวิธีการอ่านที่นักศึกษาใช้บ่อยที่สุดเป็นกลวิธีการอ่านที่อยู่ในกลุ่มกลวิธีการอ่านเพื่อความเข้าใจ ตัวอย่างของ กลวิธีการอ่านเหล่านี้ เช่น การศึกษาความหมายของคำศัพท์ใหม่ ๆ ก่อนที่จะเริ่มอ่าน (BRC 1) และการหา ความหมายของคำศัพท์ที่ไม่รู้จัก ที่พบในขณะที่อ่าน (WRC 1) ในทางตรงกันข้าม นักศึกษาจะไม่ได้ให้ความสำคัญ กับกลวิธีการอ่านในกลุ่มกลวิธีเพิ่มพูนความเข้าใจในการอ่านมากนัก

# Abstract

The purpose of this study was to investigate how Thai undergraduate students do to improve their reading comprehension skills. This paper presents a qualitative investigation. A semi-structured interview is served as the main source of data. Forty students from different faculties of Khon Kaen University participated in the study. The transcribed interview data was analyzed with 'open and axial coding' techniques. The data analyses revealed two main emergent categories of reading strategies: 1) reading comprehension strategies (RC); and 2) reading comprehension enhancement strategies (RCE) with altogether 39 individual reading strategies. The interview result showed that the most frequently found strategies being reported were from the first category, e.g. looking for unfamiliar vocabulary items and then searching for their meanings before reading (BRC 1), and searching for the meanings of unfamiliar vocabulary items while reading (WRC 1). On the contrary, the students reported not to rely heavily on the strategies from the second category.

คำสำคัญ : การอ่านเชิงวิชาการ กลวิธีในการอ่าน นักศึกษาระดับปริญญาตรี การสำรวจเชิงคุณภาพ Keywords : Academic Reading, Reading Strategy, Undergraduate Students, Qualitative

Investigation

<sup>\*</sup> ผู้นิพนธ์ประสานงานไปรษณีย์อิเล็กทรอนิกส์ <u>namprung@hotmail.com</u> โทร. 042-415-600 ต่อ 46633



# 1. Introduction

This paper describes a qualitative investigation of the strategies used in the comprehension of reading English language texts when the materials being read are specialized academic reading.

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). Brumfit (1980, p. 3) has defined reading as "an extremely complex activity involving a combination of perceptual, linguistic and cognitive abilities." In this paper, reading strategies refer to any sets of learning processes, learning techniques, or learning behaviors; whether observable or unobservable. which undergraduate students reported employing for comprehending an English academic reading text either in the classroom setting or outside the classroom setting including improving their reading comprehension skills, solving the problems encountered while reading. overcoming their failures to fully comprehend the texts.

The relationship of the use of strategies to success in mastering a second or foreign language, as well as to

various variables, has been the focus of a growing body of research over the past two decades (Green & Oxford, 1995). In the previous studies, for example, Adamson (1990, 1991, 1992) has found that ESL students from different academic and cultural backgrounds displayed a wide range of academic strategies. Sheorey and Mokhtari (2001) investigated the differences in the reported use of reading strategies of native and non-native English speakers when reading academic materials. The results revealed that both US and ESL students display awareness of almost all of the strategies included in the survey. Moreover, both groups attribute the same order of importance to categories of reading strategies in the survey, regardless of their reading ability: cognitive strategies, followed by metacognitive strategies, and support strategies.

While such research works on L2 reading have increased interest in students' use of reading strategies, to date there has been limited qualitative research on EFL students' use of reading strategies at the university level. In academic reading, these students need to control or monitor their reading more constantly than when they read for general purposes because they might encounter difficulties while reading academic materials (Li and



Munby, 1996).

Hence, this study aimed to produce the data that would contribute to better understanding of EFL academic reading and that would provide useful information for both EFL instructors and EFL students about the nature of EFL academic reading comprehension. By exploring the students' use of reading strategies, the present study may give direction for teaching and learning. Moreover, it may aid teachers in selecting appropriate course materials for their students. In addition, the findings of this study are expected to generate some implications for EFL reading lesson in universities in Thailand. This study was also expected to find answers to the following two research questions in the context of students' use of reading strategies while reading academic texts:

- 1. What strategies do undergraduate students use to achieve comprehension in their academic reading?, and
  - 2. How do they use these strategies?

# 2. Research Methodology

# 2.1 Participants

A total of 40 undergraduate students from Khon Kaen University participated in the study. At the time of data collection, the participants were enrolled in at least one of English courses. Within this group, there were 22 Science-oriented students, and 18 Social Sciences students. These 40 students volunteered to participate in the study. Moreover, each interviewee's appointment was arranged at a different time based on their convenience of time to participate in the interview.

### 2.2 Data Collection

To explore how the participants manage their academic reading texts, a one-to-one semi-structured interview was conducted as the main method of data collection. With respect to the student interview question guide, it comprised altogether 13 questions. There were two main parts in the interview. The first part of the interview (Questions 1 to 4) was concerned with gathering basic information about the interviewees. The second part (Questions 5 to 13) focused on the students' reading strategies employed both inside and outside a language classroom. The main purposes of this part were to explore the students reading strategies they used while reading academic texts, the problems the students encountered while reading, and how they solved those problems. The questions used in the investigation can be summarized as follows:



#### Part I:

Q1: a general introduction to the interview including; the interviewer's and interviewees' names, the interviewees' area of study and the purposes of the interview:

**Q2:** an investigation of the number and level of English courses that each interviewee is studying or has already studied:

Q3: an investigation of the number of hours per week that each interviewee is spending, or has spent studying English, and whether he or she considers it to be sufficient:

Q4: an investigation of the number of hours per week that each interviewee is spending, or has spent reading academic texts;

#### Part II:

Q5: an investigation of each interviewee's perception of his/her reading ability;

**Q6:** and **Q7:** an investigation of each interviewee's opinion about the importance of English academic reading in his/her life, and future career;

**Q8:** an investigation of each interviewee's opinion about what he/she finds difficult in English academic reading;

**Q9:** an investigation of reading problems each interviewee encounters while reading English academic material, and how he/she solves those problems;

Q10: an investigation of each interviewee's strategies that he/she employs to discover the meanings of unknown vocabularies;

Q11 and Q12: an investigation of the student's use of reading strategies both within and outside the classroom settings (pre-reading, while-reading, and post-reading); and

Q13: an investigation of each interviewee's opinion about reading study from his/her own experience.

The interviews were held during the second semester of the 2009 academic year and the average length of each interview was about 30-40 minutes. At the beginning of the interview session, each interviewee was requested to choose and read one academic passage. The passages for each group of students were different. There were three passages for the Social Sciences students, and another three passages for Science-oriented students. Before actual use, these reading passages were judged and accepted to be appropriate by the specialists of each field. Reading averaged 15 minutes. While interviewing, the researcher tried to establish a relaxed atmosphere and to



develop a good relationship between the interviewer and interviewees by addressing the students by their first name, or nickname based on their preference. The researcher started the interview by talking about the background information of the interviewees, such as their names, major field of study, etc. They were then asked to identify any problems found while reading and how they solve those problems and achieve comprehension.

All interviews were tape-recorded instead of taking notes. According to Intaraprasert (2000), taking notes while conducting the interview can interrupt the interview process and eventually it may result in the failure of the interviews. Then, all recordings were transcribed more or less verbatim after having finished interviews. Two strategies were used in order to increase the reliability and validity of the interview transcripts after having finished the first transcribing: 1) repeatedly listening to and transcribing the tape records of the interviews with two colleagues; and 2) equating the literal meanings of transcripts through backtranslations by asking for assistance from friends who are university instructors.

# 2.3 Data Analysis

The transcribed interview data were analyzed with 'open and axial coding'

techniques proposed by Punch (2005) and Strauss and Corbin (1998). In the present study, the data collected for this study were analyzed through Open coding, i.e. process of breaking down, examining, comparing, conceptualizing, categorizing data (Strauss and Corbin, 1990 and 1998) in order to take the data obtained apart and to examine the discrete parts for differences and similarities, moreover the axial coding was used in order to reassemble the data fractured during open coding. Then, the researcher carefully read the transcripts for possible codes or categories relevant to the purposes of the study. Initially, hundreds of strategies emerged from the interviews. Thus, these strategie were as far as possible summarized and grouped. Many of the reported reading strategies frequently mentioned by the participants were consistent with other research findings, e.g. use of background knowledge, context clues, translation, prediction, and so forth. However, three reading strategies reported by the participants were singled out because they were not specifically mentioned in any past research findings. These included looking for the parallel article(s) in Thai (if any), reciting vocabulary items in rhymes, and associating the sound of a Thai word with that of a new English vocabulary item.



The reading strategies were then categorized based on the definition of reading strategies for the present study mentioned earlier.

# 3. Results and Discussion

The data showed that the participants actively invoked a variety of strategies in order to achieve the academic reading texts. The analysis of the data revealed a total of 39 statements which the students reported employing while reading an English academic material. Then the 39 statements were classified into two main categories: 1) reading comprehension strategies (henceforward "RC"); and 2) reading comprehension enhancement strategies (henceforward "RCE"). A brief description of each category is given below:

Category 1: Reading Comprehension Strategies (RC) refer to the actions and procedures that the reader employs when faced with academic reading materials (28 items). This category has been abbreviated as RC in order to apply a structure and reference system to the data. The strategies in this category can be divided into three purposes as follows:

Purpose 1: Before Reading Comprehension Strategies (BRC) are techniques which the students reported employing to comprehend the academic text before doing actual reading. The interview data revealed that the participants reported eleven strategies running from BRC1 to BRC 11 which were employed before starting reading. The interview data showed that the participants generally felt a lot of anxiety about academic reading because they were not capable of comprehending directly in texts written in English. Before reading, they needed to know something appeared in the texts, therefore the participants depended heavily on the BRC strategies. The eleven BRC strategies include:

- BRC 1: Looking for the meanings of unfamiliar vocabulary items
- BRC 2: Reading the title of the text
- BRC 3: Skimming
- BRC 4: Reading the first and the last paragraphs
- BRC 5: Looking at pictures/charts/tables/
  figures that appear in the text
- BRC 6: Looking at questions about the text (if any)
- BRC 7: Scanning for main ideas
- BRC 8: Using one's background knowledge
- BRC 9: Reading the abstract or introductory part
- BRC 10: Looking for the parallel article(s) in Thai
- BRC 11: Predicting what might happen in the text

The examples of students' statements are as follows:

"I will look roughly through the whole passage, text, etc. which I am going to read for new words and underline them. Then I will look them up in a dictionary."

"I will glance through the text in order to check how many new vocabulary items appear. Then I will list all of them and look for their meanings."

"I will read the title of the article in order to imagine what happens and think whether or not I already have some knowledge of that particular topic."

"I sometimes ask myself questions about the text based on its title, prior to my reading of the article. I will then try to answer my predicted questions."

For this purpose, the most frequently found strategy being reported was that the students looked for unfamiliar vocabulary items and then searched for their meanings (BRC 1). This was followed by the use of background knowledge (BRC 8). This showed that for this group of students, the problem of vocabulary seemed the most serious. Most students reported employing dictionaries as the main instrument in searching for meanings. Furthermore, a large number of theories

and research findings have emphasized the importance of using background knowledge in English reading. Li and Munby's study indicated that the participants gave much credit to the use of background knowledge in their L2 academic reading. They believed that background knowledge of the content was extremely important for reading and that lack of relevant background knowledge impeded their reading comprehension.

Although the participants believed that deficiencies in the use of BRC strategies might impede their reading comprehension, they realized that these strategies were not necessarily effective at all times because in some situations such as in the examination, there was not enough time for pre-reading. The participants also realized that reading strategies were very useful and could help them in the process of academic reading comprehension, but they said that they did not receive any formal training in how to use strategies at school.

Purpose 2: While Reading Comprehension Strategies (WRC) are the actions and procedures readers use while working directly with the academic text. Eleven strategies running from WRC1 to WRC 11 emerged from the interview. The interview data revealed that the participants also

depended heavily on the WRC strategies. As EFL learners, they believed that they always employed at least one WRC strategy not only in reading academic materials, but also non-academic materials. These eleven strategies include:

- WRC 1: Searching for the meanings of unfamiliar vocabulary items
- WRC 2: Analyzing a sentence structure
- WRC 3: Taking notes of the important information
- WRC 4: Using context clues to guess the meanings of some sentences
- WRC 5: Rereading some parts of the text
- WRC 6: Reading some parts of the text slowly
- WRC 7: Skipping difficult part(s)
- WRC 8: Highlighting important information or difficult vocabulary items by underlining
- WRC 9: Highlighting important information or difficult vocabulary items by making symbol(s)
- WRC 10: Translating the reading text into the student's first language
- WRC 11: Making a summary of certain part(s) of the reading text in either Thai or English, or both

Some students' statements are shown below:

"Although I have already looked up the meanings of difficult words before

starting reading, I will consult a dictionary again if I face new words while reading."

"If I have found some difficult parts while reading, I will try to read the whole text continuously. Then I will understand what I have read by predicting the meaning of the text from the context."

The most favored or most often reported strategy being used was searching for the meanings of unfamiliar vocabulary items (WRC 1), and followed by translating the reading text into student's first language (WRC 10), skipping difficult part(s) (WRC 7), and using context clues (WRC 4). This finding was emphasized by these students having stated that unfamiliar vocabulary items were the most serious problem in the lack of understanding of academic reading texts.

Translating what is read in L2 into L1 is a unique strategy for L2 readers who use their first language as a base for understanding or producing the second language (O'Malley and Chamot, 1990). Although some students reported that they had obtained high scores in English proficiency test, they still reported employing translation as a strategy to overcome their academic reading tasks. It can be concluded that the students depended heavily on the translation process.



Many of the participants agreed to skip some difficult parts they encountered while reading. They reported that they did not want to waste a lot of time on those parts which could be skipped over without losing much comprehension. Furthermore, the students skipped the unknown words that were considered not essential to overall comprehension. The participants said that sometimes after having finished reading, they would ask their friends or instructors to make sure their comprehension of the whole text was accurate after skipping some parts.

Li and Munby (1996) found that the participants of their study were capable of using context clues to predict unfamiliar words or phrases in the texts being read. They tried to predict the meanings of the words or phrases by examining their relationship with other items in the sentence. In the present study, the participants reported that they were always encouraged to use context clues to predict the unknown words found in the texts but they did not receive any intensive training at school. Therefore, they often failed in predicting the meanings of unknown words using this strategy. The interview data also revealed that using context clues to predict the meanings of the words was one of the most favored reading strategies, though

most of the predictions were incorrect. The participants said that sometimes after the predictions, they would look up the meaning of the words in the dictionary to make sure their predictions were accurate.

Purpose 3: After Reading Comprehension Strategies (ARC) are actions or techniques which the students reported employing to make sure of their understanding after they have finished reading. These strategies are intended to aid the reader in comprehending the text after they have finished reading. Six strategies running from ARC 1 to ARC 6 emerged from the interview. From the interview data, the participants did not depend heavily on ARC strategies. In reading something for fun, they reported not to use any strategies after reading. These six ARC strategies are:

- ARC 1: Searching for the meanings of new vocabulary items skipped while reading
- ARC 2: Discussing the reading text with classmate(s)
- ARC 3: Making a summary of the whole text
- ARC 4: Retelling about what has been read
- ARC 5: Reviewing one's own notes
- ARC 6: Translating the reading text into Thai using Thai script

Some reported statements are shown below:

"After reading, I will reread the unknown words that have been found while reading. Then, I may look for the meanings of those unknown words that I have skipped over while reading using the dictionary or asking other people after reading."

"I like to talk with my friends after finishing reading.

"After I have finished reading in English, I translate the whole text into Thai. I have to use this technique in order to check how much of what I have just read I can understand."

Again, the finding has emphasized that the most serious problem reported by the participants in academic reading has been the problem of unfamiliar vocabulary. Therefore, searching for the meanings of new vocabulary items skipped while reading (ARC 1) was reported to be employed the most frequently. It is followed by discussing what was read with the participants' classmates or friends (ARC 2), and making a summary of what was read (ARC 3).

Some participants reported that they were likely to talk and discuss what was read with their friends in order to check

their understanding. While discussion, they shared their ideas of what they read. They compared the similarities and the differences between their understanding so that they did not misunderstand the context. Many participants added that when they could understand the text, they listed the important points into their notebooks and make a summary of what they read.

Category 2: Reading comprehension enhancement strategies (RCE) are mechanisms to help the reader in understanding new vocabulary items found while reading (11 items). The strategies in this category can be divided into two purposes as follows:

Purpose 1: Strategies for reading comprehension enhancement dealing with unknown vocabulary (RCEUV)

From the interview data, for most of the participants who were EFL students, the major problem in academic reading was the words which they did not know the meanings. They reported that they always suffered from deficiencies at the number of English vocabulary items which have influenced their reading comprehension. The interview data revealed that the participants reported five strategies running from RCEUV1 to RCEUV5 which were employed when they encountered

unknown words while reading. They realized that the use of these emergent strategies played a very important role in reading. These strategies may aid them in comprehending what they were reading more easily.

As EFL learners, the participants believed that they always employed at least one strategy to aid them to know the meanings of unknown words not only in reading academic materials, but also non-academic materials. These emergent five strategies include:

- RCEUV 1: Guessing the meaning of a new vocabulary item from the context
- RCEUV 2: Looking at the root of an unknown vocabulary
- RCEUV 3: Looking up the meaning of an unknown vocabulary item from electronic resources e.g. electronic dictionary, and the Internet
- RCEUV 4: Looking up the meaning of a new vocabulary item in a dictionary
- RCEUV 5: Asking for assistance For example,

"While taking a reading test, I often encounter the problems of unknown vocabulary items. What I usually do is to predict the meanings of those words using the context."

"I sometimes predict the meaning of new vocabulary items from their roots."

In this study, the participants depended heavily on their knowledge of vocabulary because they wanted to understand what they read. They also reported that they did not think reading was difficult if they knew the meaning of every word in the text. Therefore, they always employed some strategies to establish the meaning of every unknown word from the text. Unfortunately, they often employed ineffective strategies, e.g. predicting the meaning of unknown words from the context and often missing some important information. Thus, the strategies which the participants relied heavily on were looking up the meanings of unknown words from either electronic resources or normal dictionary which could always give them the correct definitions.

Purpose 2: Strategies for reading comprehension enhancement to retain knowledge of newly-learned vocabulary (RCERKV)

RCERKV strategies are the actions and procedures the students employ after having learnt new vocabulary items in order to retain meanings of those items. Such strategies include:



- RCERKV 1: Using new vocabulary items to converse with classmates and friends
- RCERKV 2: Learning the meanings of new words by rote
- RCERKV 3: Reciting vocabulary items in rhymes
- RCERKV 4: Associating real objects with vocabulary items
- RCERKV 5: Associating the sound of a Thai word with that of a new English vocabulary item
- RCERKV 6: Tutoring one's classmate(s) or friend(s) the reading lessons

Some reported statements are shown below:

"I believe that after I know the meanings of new vocabulary items. If I use those words often in my daily life, I will become familiar with them and finally I will be able to remember them. I also try to talk with my friends by using the newly-learned words in our conversations."

"While reading, I always look some unknown words up in the dictionary. This can help me understand what I read. After knowing the meanings of those words, I try to memorize their meanings."

Most students reported not to rely heavily on these strategies. Although the interview data showed that the participants did not employ these strategies often, they realized that these strategies played a very important role in reading, especially academic reading. The purpose of these strategies is to expand and to retain the students' knowledge of English vocabulary. The most favored or most often reported strategy being used in order to retain the meaning of an unknown word was learning the meanings of new words by rote (RCERKV 2), and this was followed by using new vocabulary items to converse with classmates and friends (RCERKV 1).



Table 1 Description of Researcher-Constructed Reading Strategy Questionnaire

Category		Description	Example	Item
1) RC		Strategies for textual comprehension in the actual reading		1-28
1.1	Purpose	Strategies employed to comprehend	Searching for the meanings of new vocabulary items	1-11
	1 (BRC)	the text before reading	(BRC 1); Reading the first and the last paragraphs	
			(BRC 4)	
1.2	Purpose	Strategies employed to comprehend	Taking notes the important information (WRC3);	12-22
	2 (WRC)	the text while reading	Guessing the meaning of the text from context	
			(WRC 4)	
1.3	Purpose	Strategies employed to comprehend	Searching for the meanings of new vocabulary items	1-11
	1 (BRC)	the text before reading	(BRC 1); Reading the first and the last paragraphs	
			(BRC 4)	
1.4	Purpose	Strategies employed to comprehend	Taking notes the important information (WRC3);	12-22
	2 (WRC)	the text while reading	Guessing the meaning of the text from context	
			(WRC 4)	
1.5	Purpose	Strategies employed to comprehend	Making a summary of the whole reading text (ARC	23-28
	3 (ARC)	the text after reading	3); Retelling oneself or other people about what has	
			been read (ARC 4)	
2) RCE		Strategies for textual comprehension enhancement		29-39
2.1	Purpose	Strategies for solving problems	Looking at the root of a new vocabulary (RCEUV 2);	29-33
	1 (RCEUV)	dealing with unknown vocabulary	Looking up the meaning of a new vocabulary item in	
		items found while reading	a dictionary either English - English or English -	
			Thai (RCEUV 4)	
2.2	Purpose	Strategies to retain knowledge of	Associating real objects with vocabulary items	34-39
	2(RCERKV)	newly-learned vocabulary items	(RCERKV 4); Tutoring one's classmate(s) or	
		20	friend(s) about what was learnt in the reading class	
			(RCERKV 6)	

# 4. Conclusion

The data of this study clearly shows that the participants had an awareness of their activities while reading English academic materials.

Generally, all participants demonstrated a reliance on dictionaries both electronic dictionaries and traditional dictionaries in attempts to comprehend English academic text.

The interview data revealed that the participants were able to monitor the use of reading strategies according to how much they could understand the text and how difficult the texts were. As has been mentioned earlier, the participants customarily used various strategies to help them understand the texts. For example, some were using contextual clues, use of background knowledge, asking for assistance and translation which were

consistent with the previous studies from many researchers (e.g. Block, 1986; Sheorey and Mokhtari, 2001; Lau, 2006; and Bang and Zhao, 2007).

Based on the findings of this study, emergent tactics for overcoming English academic reading materials can be classified into 2 groups: 1) reading comprehension strategies (RC); and 2) reading comprehension enhancement strategies (RCE). In classifying reading strategies for the present study, it was remarkable that the reading strategies in both categories always support each other. That is, the strategies which students reported employing in order to deal with unknown vocabulary items may help them improve their reading skills in general. In the same effect, the reading comprehension strategies which students reported employing to comprehend an academic reading text may help them discover the meanings of new vocabulary items. That is, the reading strategies under the two main categories have a spiral relationship rather than linear.

# 5. References

Adamson, H.D. 1990. ESL students' use of academic skills in content courses. English for Specific Purpose. 9: 67-87.

- Adamson, H.D. 1991. Academic competence. English for Specific Purpos. 5: 55-79.
- Adamson, H.D. 1992. Academic competence: Theory and classroom practice. New York: Longman.
- Bang, H.J. & Zhao, C.G. 2007. Reading strategies used by advanced Korean and Chinese ESL graduate students: A case study. The Reading Matrix. 7(1): 30-50.
- Block, E. 1986. The comprehension strategies of second language readers. TESOL Quarterly. 20(3): 463-494.
- Brumfit, C.J. 1980. Problems and principles In English teaching.
  Oxford: Pergamon.
- Carrell, P.L. (1998). Can reading strategies be successfully taught?
  [Online]. Available from http://www.jalt-publications.org/tlt/files/98/mar/carrell.html. (Access date: 20 Oct. 2009)
- Green, J. & Oxford, R. 1995. A closer look at learning strategies, L2 proficiency, and gender. TESOL Quarterly. 29(2): 261-297.
- Intaraprasert, C. 2000. Language learning strategies employed by engineering students learning English at the tertiary level in Thailand. Ph.D.



- dissertation. The University of Leeds, England.
- Lau, K. 2006. Reading Strategy Use between Chinese Good and Poor Readers: A Think-aloud Study.

  Journal of Research in Reading. 29(4): 383-399.
- Li, S. and Munby, H. 1996. Metacognitive strategies in second language academic reading: A qualitative investigation. English for Specific Purpose. 15(3): 199-216.
- Nunan, D. 1992. Research methods in language learning. Cambridge:
  Cambridge University Press.
- O'Malley, J.M. & Chamot, A.U. 1990.

  Languagestrategies in second
  language acquisition. Cambridge:

  Cambridge University Press.
- Pikulski, J.J. 1997. Teaching word-identification skills and strategies: balanced approach. [Online].

  Available from http://www.eduplace.com/rdg/res/teach/def.html. (Access date: 18 July 2006)

- Punch, K.F. 2005. **Introduction to social** research (2<sup>nd</sup>ed.). London: SAGE Publications Ltd.
- Sheorey R. & Mokhtari, K. 2001.

  Differences in the metacognitive awareness of reading strategies among native and non-native speakers. System. 29(4): 431-449.
- Strauss, A. and Corbin, J. 1990. Basics of qualitative research: Grounded theory procedures and techniques.

  NP: Sage.
- Strauss, A., and Corbin, J. 1998. Basic of quantitative research: Techniques and procedures for developing ground theory. (2<sup>nd</sup> ed.). Thousand Oaks, California: SAGE Publishers.