

## The Relationship between Metacognitive Reading Strategies and Reading Comprehension among 2<sup>nd</sup> Year EFL University Students

Panuchada Charoenchai\*, Weeraporn Carmeesak  
Department of Western Languages, Burapha University  
Chon Buri, Thailand

\*Corresponding Author: panuch27@hotmail.com

### ABSTRACT

Metacognitive reading strategies influence reading comprehension. Many studies indicated that the effectiveness of metacognitive reading strategies used while reading could help students not only engage in what they read but also expand their reading ability. This study aims at examining the level of reading comprehension and metacognitive reading strategies used by second-year EFL English major students in a public university while reading academic texts. Also, this study focuses on determining the relationships between reading comprehension and metacognitive reading strategies. The Nelson-Denny Reading Test (NDRT) form H and the survey of reading strategies (SORS) were administered to collect the data from 120 participants. The results revealed that the majority of the students were fair readers (mean=22.83 out of 38) based on the NDRT. Also, it was found that the students used the problem-solving strategies (mean=3.71) the global reading strategies (mean=3.56) at a high level. There were no statistically significant relationships between reading comprehension and metacognitive reading strategies. However, based on the interview data, the participants who scored high in the reading test and were considered good readers reported the use of metacognitive reading strategies differently from those who were fair and poor readers while reading academic texts.

*Keywords:* English as a Foreign Language (EFL), Reading Comprehension, metacognitive reading strategies

### Introduction

Reading comprehension is an important element for educational success not only for educators but also university students. Much knowledge from written texts relies on reading comprehension which is a process of making overall understanding from text (Woolley, 2011). Comprehension process requires a variety of factors such as basic reading skills, decoding, vocabulary knowledge, genre, background knowledge, knowledge of grammar, reading attitudes (motivation and interests), inferencing, breadth and depth of engagement in reading, opportunities for oral and written expression, understanding in reading strategies, and metacognitive awareness (Koda, 2007). With these multidimensional components, reading comprehension is therefore such a complex cognitive process (Meniado, 2016).

Metacognition, one of the most important factors for reading comprehension, could help students comprehend text through the process of thinking about thinking. According to Flavell (1979), metacognition includes knowledge about thinking process, active monitoring, and regulation of cognitive activities. Metacognitive strategies directly affect reading comprehension in terms of creating students' awareness of thinking while reading, enhancing their reading ability and developing

## THE RELATIONSHIP BETWEEN METACOGNITIVE READING

them into active and constructively responsive readers (Sheorey and Mokhtari, 2001). Generally, metacognitive reading strategies have been laid in many reading activities supporting reading comprehension. Thus, plan, intention, goal direction, and future-oriented mental process are employed while reading (Salataki & Akyel, 2002). Besides strengthening reading comprehension, metacognitive reading strategies also work as a predictor of reading comprehension test scores (Estacio, 2013). As mentioned in the studies carried out by Barnett (1988), and Auerbach and Paxtron (1997), it pointed out that the higher level of metacognitive reading strategies students perceive, the better in reading comprehension they are. Moreover, the relationship between metacognitive reading strategies and reading comprehension seems to engage firmly, in other words, reading comprehension level might depend on the perception or the awareness of metacognitive reading strategies. Although some previous studies on metacognitive reading strategies claimed that there is a relationship between metacognitive reading strategies and reading comprehension performance (Mokhtari and Reichard, 2004; Sheorey and Mokhtari, 2001; and Zhang and Wu, 2009), some studies revealed that there are no relationships between them, such as in the studies conducted by Alsamadani (2009), Mehrdad, Ahghar and Ahgha (2012), Meniado (2016), and Estacio (2013).

As different findings presented by many researchers mentioned above, it is inconclusive if metacognitive reading strategies can affect reading comprehension. Thus, this study aims to shed some light on Thai EFL learners by examining EFL English major students' reading proficiency, investigating the use of metacognitive reading strategies, and finding out if there are any relationships between metacognitive reading strategies and reading comprehension among EFL English major students. The 2<sup>nd</sup> year EFL English major students have already studied a course of reading techniques which emphasizes techniques and strategies necessary for reading comprehension, and in the second semester of academic year 2016, they are studying a course of creative reading focusing on analytical and critical thinking processes while reading texts. To accomplish analyzing and critical thinking skills, the students firstly need to clearly comprehend texts. This study was carried out in the hope of boosting educators to allocate and facilitate suitable activities which help support students' metacognitive awareness and encouraging students or learners to increase their awareness and usage of metacognitive reading strategies while reading for their higher level of reading proficiency.

### Objectives

The research objectives can be described in detail below:

1. To examine second year EFL university students' reading proficiency
2. To investigate the frequency of metacognitive reading strategies used by second year EFL university students
3. To find out the relationship between reading comprehension and metacognitive reading strategies among second year EFL university students

### Research Questions

Three research questions in this research were addressed as follows:

1. What are the levels of reading proficiency among 2<sup>nd</sup> year EFL university students?
2. What are metacognitive reading strategies mostly used by 2<sup>nd</sup> year EFL university students?

## THE RELATIONSHIP BETWEEN METACOGNITIVE READING

3. Are there any relationships between reading proficiency and metacognitive reading strategies used by 2<sup>nd</sup> year EFL university students?

### Theoretical framework

The concept of metacognitive reading strategies was adopted as the framework of the study.

Metacognitive reading strategies are “intentional, carefully planned techniques by which learners monitor or manage their reading” Sheorey and Mokhtari (2001). The strategies are classified into three groups:

**Planning strategies.** Planning strategies are used before reading. The strategies consist of activities that readers use to grasp the overview of the text such as previewing title, heading, subheading, picture, illustration, and general information in the text (Iwai, 2011). Text Structure and setting purpose for reading are also important activities for activating background knowledge and over-viewing the text to get ready before reading (Pressley, 2002).

**Monitoring strategies.** While reading, monitoring strategies such as taking note, using context clue to figure out the meaning of unknown words, inferring of pronoun referents, the connotations of words and sentences, and the intentions of the author are used for comprehending the text. Self-questioning about the text and inferring the gist of the text are also employed while reading (Israel, 2007). Moreover, awareness of difficulties can cause the reader to adjust reading, either speeding up or slowing down, or perhaps even seek other text to provide some background to comprehend the text (Pressley, 2002).

**Evaluating strategies.** The evaluation strategies are employed after reading when readers think about how to apply what they have read to other situations (Iwai, 2001). In other words, readers need to connect the ideas from the text to other related issues after reading.

### Methodology

To collect the data, the participants, the instruments, and the procedure of collecting the data were determined and presented as follows:

#### 1. Participants

The participants of the study were all undergraduate students studying Creative Reading, a compulsory major course for English major undergraduate students at Burapha University in Chon Buri, Thailand. Therefore, there were 141 participants in this study.

#### 2. Instruments and Data Collection

To collect data, three instruments were utilized in this study.

##### 2.1 The Nelson-Denny Reading Test (NDRT) Form H

The Nelson-Denny Reading Test (NDRT) Form H was a reading standardized test which consisted of This standardized reading test consists of 7 passages with 38 items (5-multiple-choice questions). The test was internationally and widely used to test reading vocabulary, reading comprehension and reading rate of ESL/EFL test takers. The total scores were 38. The score ranges were indicated and categorized three types of readers: good readers (scores 28-38), fair readers (scores 14-27), and poor readers (scores 0-13).

##### 2.2 The Survey of Reading Strategies (SORS)

The SORS was developed by Mokhtari and Reichard (2002). The items in the survey were based on the concept of metacognitive awareness and the use of Metacognitive Awareness of reading Strategies Inventory (MARS). Originally there

## THE RELATIONSHIP BETWEEN METACOGNITIVE READING

were 30 items. However, there were no tables, pictures, or figures in the reading test employed in this study, so the item about using table, figures, in the text to increase understanding was deleted. Therefore, there were 29 items in the survey. The items were categorized into three subgroups: 12 items for Global reading strategies (GLOB), 8 items for Problem-solving strategies (PROB), and 9 items for Support reading strategies (SUP). A 5- point Likert scale following each item indicates the frequency of strategy use ranging as follows: '1' means 'I never or almost never do this'. '2' means that 'I do this only occasionally'. '3' means that 'I sometimes do this'. (About 50% of the time.) '4' means that 'I usually do this'. '5' means that 'I always or almost always do this'.

### 2.3 The Interview

Four interview questions were based on the idea of metacognitive reading strategies and also related to Global Reading Strategies (GLOB), Problem Solving Strategies (PROB) and Supporting Strategies (SUP). The questions were as follows:

- a. What is your purpose of reading an academic text in English, for example, a book or an article?
- b. How do you read an academic text in English?
- c. Can you describe any difficulties you meet while reading academic texts in English? Which one do you find the most problematic?
- d. What do you do to solve each of these reading problems?

### 3. Data Collection and Data Analysis

The procedures for gathering data and data analysis were 6 steps.

3.1 The participants were determined by considering all second year English major students studying Creative Reading in the second semester of the academic year 2016. Therefore, there were 141 participants of the study.

3.2 After that the participants were asked to take the Nelson-Denny Reading Test (NDRT) Form H in 35 minutes (according to the test criterion).

3.3 After the tests, the participants were asked to complete the survey SORS in the this step.

3.4 After all data were collected. The test scores were marked for only correct answers. Then, the scores were ranged based on the NDRT criterion to determine types of reader (the good readers, fair readers and poor readers). Besides that, the scores were analyzed by a statistical program for percentage, frequency, mean, and standard deviation.

3.5 The data from the survey SORS were recorded and analyzed by a statistical program for frequency, mean, and standard deviation.

3.6 Both the reading test scores and the data from the survey were analyzed for their correlation by a statistical program.

## Literature Review

### Reading Comprehension

Reading comprehension has been considered as a product of a reader's interaction with a text to construct meaning (Al-Jamal D., Al-Hawamleh M., and Al-Jamal G., 2013). It also refers to cognitive process which consists of different components: physical actions, psychological factors, and social environment (Raungsawat, 2009). To engage with text, readers have to respond to the ideas rested in the text by asking themselves some questions about the text, organizing the ideas from the text, and connect those ideas to their prior knowledge (Irvin, Buehl, and Radcliffe, 2007). During this process, "comprehension occurs when the reader extracts and integrates various information from the text and combines it with what is

## THE RELATIONSHIP BETWEEN METACOGNITIVE READING

already known” (Koda, 2005: 4). It could be said that while interacting with the text, the reader is involved in the productive process of creating meaning from the text. Reading comprehension does not only rely on cognitive process, but psychological process, complex linguistic knowledge, and especially reading strategies which are necessary for enhancing reading comprehension and solving reading comprehension problems (Singhal, 2001).

As an important factor for reading comprehension, the term of reading strategies was defined as mental processes or variety techniques that readers use to facilitate reading comprehension and also remedy comprehension failures (Cohen, 1990, and Garner, 1987). Effective reading strategies can empower readers as mentioned in Rizan, Maasum, and Maarof (2012) that students’ reading abilities depended on application of their effective reading strategies. According to previous studies on reading strategies, reading strategies can be categorized into two types: cognitive reading strategies and metacognitive reading strategies. According to Oxford and Crookall (1989), the term of cognitive strategies was defined as “the strategies that involve manipulation and transformation of the language in some direct ways”. The strategies are seen as processes of learning by using basic reading skills such as skimming, scanning, and using dictionary to get the ideas from texts. Meanwhile, metacognitive strategies are explained as “readers’ cognition about reading and self-control mechanisms they exercise when monitoring and regulating text comprehension” (Mokhtari & Reichard, 2002). Metacognitive reading strategies can strongly create positive effect on readers’ reading comprehension, in other words, the reading performance of readers who use metacognitive reading strategies is better than the ones who do not use those strategies (Auebach and Paxton, 1997; Zhan and Wu, 2009; and Iwai, 2011). Thus, metacognitive reading strategies awareness is an important factor of reading comprehension for this study.

### Metacognitive Reading Strategies

According to Iwai (2001), metacognitive reading strategies consist of three main related strategies: planning strategies activating background knowledge and overviewing the text to get ready before reading, monitoring strategies comprehending text by using context clues to figure out the meaning of unknown words, self-questioning about the text, and inferring the gist of the text, and evaluating strategies connecting the ideas from the text to other related issues after reading. As well as the definition of metacognitive strategies stated by Sheorey and Mokhtari (2001), metacognitive strategies are “intentional, carefully planned techniques by which learners monitor or manage their reading”. According to the three phases of metacognitive strategies and definition of metacognitive strategies, it can be concluded that metacognitive strategies focus on self-learning, monitoring and evaluating processes while reading.

Since several studies have pointed out that metacognitive reading strategies have a positive correlation with reading comprehension (Estacio, 2013; Mokhtari and Reichard, 2004; Sheorey and Mokhtari, 2001; Anjomshoaa, 2012; and Zhang & Wu, 2009), it ensures that skilled readers with metacognitive awareness will perform better in reading comprehension than those who have no idea about metacognition. Metacognitive reading strategies, consequently work as a predictor of reading comprehension test scores (Estacio, 2013).

The effectiveness of metacognitive awareness on reading comprehension has been studied so much that there was an invention of an instrument to measure metacognitive awareness of reading comprehension. As the widely-used tool

## THE RELATIONSHIP BETWEEN METACOGNITIVE READING

developed by Mokhtari and Richard (2002), it was a Metacognitive Awareness of Reading Strategies Inventory (MARSİ) which consists of 30 questions under the three categories of global reading strategies, problem-solving strategies, and support reading strategies. However, MARSİ was not designed for non-native speakers, Mokhtari and Richard developed the SORS or the survey of reading strategies for examining metacognitive awareness of reading for EFL learners.

### **Related studies on metacognitive strategies and reading comprehension**

Many studies have been carried out on the effectiveness of metacognitive reading strategies in reading comprehension. However, there are some different results on the relationship between metacognitive reading strategies in reading comprehension as these following reviews.

Mehrdad, Ahghar and Ahgha (2012) conducted the study to find out whether teaching "cognitive and meta-cognitive strategies" affects EFL students' reading comprehension across proficiency levels. The results revealed that "teaching cognitive and metacognitive strategies" had no significant effects on the reading comprehension of elementary students; neither did it have any effect on the reading comprehension of advanced students. However, teaching such strategies had significant effects on the reading comprehension of intermediate students.

Estacio (2013) highlighted on the use of metacognitive strategies as predictors of reading comprehension. Results have not been conclusive as to which strategy affects reading comprehension more because there was no single predictor of the reading tests scores. However, the results of the study validated the relationship between bilinguals' use of metacognitive reading strategies and their reading comprehension.

Magogwe (2013) explored metacognitive awareness level of University of Botswana students in the Faculty of Social Sciences and investigated the role of metacognitive awareness in reading and how it relates to proficiency. The findings indicated that University of Botswana English as Second Language (ESL) students reported high reading proficiency and high use of metacognitive strategies, but there was no significant difference in terms of proficiency.

Pei (2014) conducted the study to find out if metacognitive reading strategy instruction could help EFL learners in private university read more efficiently and rapidly in the school-based material. The experimental group (henceforth EG) and the control group (henceforth CG) were examined in terms of their reading comprehension and metacognitive awareness. The results showed that the two groups did not perform any significant differences before and after instruction both in reading comprehension test and their reported metacognitive strategies use.

Meniado (2016) found out if there was indeed a relationship between and among metacognitive reading strategies, reading motivation, and reading comprehension performance. The results revealed that the Problem-Solving Strategies (PROB) was the most frequently used. The study also revealed that there was no correlation between metacognitive reading strategies and reading comprehension.

Hoang (2016) investigated the reading strategies used by Vietnamese students, the correlation between reading strategy use and reading competence, and the differences between higher-proficiency readers and lower-proficiency readers in terms of strategy utilization. The findings revealed that the student-subjects were medium strategy users, and there was no statistically significant association between overall strategy use and reading comprehension. However, that some top-down strategies

## THE RELATIONSHIP BETWEEN METACOGNITIVE READING

dealing with global meaning were applied more often at higher levels of proficiency, while bottom-up analytical strategies and support strategies tended to be used more frequently at lower levels of proficiency.

### Findings

Because of the missing data of 21 participants, the data were collected from 120 participants. With a statistical program, there are some results presented as follows:

#### Levels of reading proficiency

The reading score results were categorized into three levels based on the score ranges of NDRT: 0-13 marks (poor readers), 14-27 marks (fair readers), and 28-38 marks (good readers). The results are presented in the table 1

Table 1  
*The levels of reading proficiency based on NDRT*

Levels of reading proficiency	F (N=120)	%	NDRT Scores (total = 38)		
			Min.	Max.	Mean
Good readers	3	2.5%	28	30	28.67
Fair readers	116	96.67%	14	27	22.79
Poor readers	1	0.83%	10	10	10
Total	120	100%	10	30	22.83

Among those participants, most participants were fair readers (96.67%), good readers (2.5%) and a poor reader (0.83%) respectively. The test results showed that the maximum score was 30 and the minimum score was 10 out of 38, also the average score at 22.38.

#### Use of metacognitive reading strategies

Using survey and interview, the results were presented as follows:

**Metacognitive reading strategies use examined by SORS.** The results from the Survey of Reading Strategies (SORS) survey developed by Mokhtari and Sheorey (2002) revealed that all participants used metacognitive reading strategies at high level (with the mean of 3.65). The results of using three types of reading strategies were different as presented in table 2.

Table 2  
*The use of metacognitive reading strategies*

Levels of reading proficiency	GLOB		PROB		SUP		All strategies	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Good readers (N=3)	3.58	.25	4.13	.33	3.89	.29	3.87	.14
Fair readers (N=116)	3.56	.59	3.71	.59	3.35	.66	3.54	.53
Poor readers (N=1)	3.58	-	3.50	-	3.56	-	3.55	-
All readers (N= 120)	3.56	.58	3.71	.59	3.36	.66	3.55	.53

## THE RELATIONSHIP BETWEEN METACOGNITIVE READING

As presented in table 2, three groups of readers differently used metacognitive reading strategies. Good readers mostly used problem-solving strategies (PROB) with the mean of 4.13 followed by supporting strategies (SUP) with the mean of 3.89, and global strategies (GLOB) with mean of 3.58. While fair readers used PROB (mean = 3.71), GLOB (mean = 3.56), and SUP (mean = 3.35) respectively. Unlike good and fair readers, the poor reader in this study used GLOB (mean=3.58), SUP (mean = 3.56), and PROB (mean = 3.50) respectively. As the strategy use was considered as a high level when the mean score obtained was 3.5 or higher. A moderate level was determined when the mean score was between 2.5 and 3.4, and a low level of strategy with the mean score between 2.4 or lower. As the presented results of metacognitive reading strategies use, all participants used all strategies with the mean score of 3.55. Thus, the participants in this study were considered as high strategy users.

**The relationship between metacognitive reading strategies and reading proficiency.** In order to determine the relationship between metacognitive reading strategies and reading proficiency, the Pearson Correlation Analyses were performed. The results revealed that with a correlation coefficient (r) value of -.016 and a level of significant at 0.01, there was no statistical correlation between metacognitive reading strategies and reading proficiency.

**The interviewed results of metacognitive reading strategies.** Seven participants who categorized as good readers (3 people), fair readers (3 people), and a poor reader (1) were asked for the interview section administrated by the researchers. Based on metacognitive reading strategies under three subgroups of GLOB, PROB, and SUP, four interview questions were employed for this study. When the participants were questioned on what your purpose of reading an academic text in English was, the majority of them thought that the purpose of reading was for enhancing their prior knowledge and gaining new knowledge. For the second question "How do you read an academic text in English?", good readers highlighted that they always previewed text before began to read, underlined important points, focused on keywords, took note while reading, identified main idea and always asked and answered themselves about the text. Fair readers mostly felt that previewing text before reading, opening dictionary while reading, and identifying main idea could help understand text. Unlike the poor reader, reading every sentence, and understanding every word could help him understand text. The third question focused on difficulties while reading academic text and the most problematic aspect. The three groups claimed that vocabulary was the biggest problem of reading. The group of fair readers also added that besides vocabulary, identifying main idea was still the important problem. Then the last question was stated under a curiosity of what they did to solve those problems. The group of good readers as well as the group of fair readers suggested that using context clues and studying affixes could help solve vocabulary problems. However, the poor reader thought that reading a lot could help enhance vocabulary. For the problem of identifying main idea, the group of fair readers agreed that reading text many times and focused on keywords could help figure out that problem.

### Discussion

As the test scores revealed that 96.67% of the participants were fair readers, and all participants underwent the reading techniques course which contained many techniques to achieve reading comprehension, it can be inferred that they might adopt some techniques to comprehend texts in the reading test NDRT. Associated with the information from the interview and the use of metacognitive reading strategies from



## THE RELATIONSHIP BETWEEN METACOGNITIVE READING

SORS, the result also supports the idea of Auerbach and Paxtron (1997) which suggested that that metacognitive awareness of reading strategies can affect reading comprehension and reading proficiency.

For the different use of the three strategies: GLOB, PROB, and SUP among the three groups of participants, it cannot conclude and generalize to all EFL good readers about the mostly used strategy because of a very small number of good readers, and neither did the only one poor reader in the study. In contrast, the fair readers, the majority of the study, showed clearly that they frequently used PROB, GLOB, and SUP respectively. As well as the research result conducted by Meniado (2016), PROB was the most frequently used. According to Sheorey and Mokhtari, 2001, PROB strategies were used for dealing with problems that block their reading comprehension. Among the fair readers of the study, the strategies might be more important than planning, previewing text as GLOB or finding supports (SUP). And the more they use; it also means that they may often face to reading problems. However, the mostly used strategies can be inferred that they can help readers to solve reading problem and to understand text. Compared with SUP, the readers pay more attention on GLOB or planning strategies such as previewing text than using support things such as opening dictionary, taking note, and highlighted text.

Unlike many researches on correlation between metacognitive reading strategies and reading proficiency, this study revealed no correlation between them as well as some previous studies among EFL learners conducted by Alsamadani (2009), Mehrdad, Ahghar and Ahgha (2012), and Meniado (2016). The causes of this result may relate to positive and negative factors. The positive factors might be the reader's existing linguistic knowledge as mentioned by Mehrdad, Ahghar and Ahgha (2012), and Meniado (2016), or having previous knowledge as cited by one of the interview respondent who said "I clearly understand some of the texts because I have already known about that topic." These factors are parts of metacognitive reading strategies. As monitoring strategies, existing linguistic knowledge could help readers understand meanings of each sentence in the text, and they could more clearly understand the text if they have previous knowledge about it. On the other hand, negative factors like limited language skills and insufficiency of reading strategies claimed by most of the interview respondents could affect negative effects to their reading proficiency. As during three steps of metacognitive reading strategies, readers need enough language skills to understand meaning of sentences in the text, sufficient reading strategies to overview the text before reading, self-monitoring strategies such as, inferring of pronoun referents, the connotations of words and sentences, self-questioning about the text, finding the main idea, and the intentions of the author ( Israel, 2007) to help them understand meaning, details and main points of the text while reading, and evaluation strategies to link what they have read to other situations (Iwai, 2001). All in all, it could be said that reading strategies could obviously affect reading proficiency.

### Limitations

1. As the respondents of the study are 120 second-year English major students in English at Burapha University in Chon Buri, Thailand, the findings of the study will generalize to only these students.
2. Due to the differences of reading proficiency levels and scoring criteria, the three reading proficiency levels of the NDRT in this study could not be equivalent to the Common European Framework of Reference for Languages (CEFR) which is an international standard for describing language ability in 6 levels: A1, A2, B1, B2, C1 and C2.

### Recommendation

Although the results of the study revealed that there was positive effect of metacognitive strategies on reading proficiency, there was no correlation between them in terms of statistical analysis. However, the findings could suggest the following directions:

1. For further studies, it is important to find out if there are any factors affect reading proficiency besides metacognitive reading strategies or to examine the use of metacognitive reading strategies of EFL students in different university in order to confirm the importance of metacognitive strategies on reading proficiency.
2. For educators, the results of this study could help educators to allocate and facilitate suitable activities which help support students' metacognitive awareness and encouraging students to use metacognitive reading strategies for their reading proficiency

### Conclusion

Based on the results from three instruments, it could be concluded that most participants used metacognitive in high level while most of them did quite well in reading test. They adopted metacognitive reading strategies and were able to utilize the strategies to achieve their reading comprehension. Planning, monitoring, and evaluating themselves while reading were considered as important strategies for reading comprehension. The Problem-Solving Strategies (PROB) was the most frequently used among them. It means that they could deal with reading problem. However, the participants did not use only one type of the strategies, but all of them needed for their reading proficiency.

Despite no significant relationship between metacognitive reading strategies, the interview, the results from the survey SORS, and many studies, it could be inferred that the metacognitive reading strategies are still important for readers and learners in terms of improving their reading comprehension.

### References

- Al-Jamal D., Al-Hawamleh M., and Al-Jamal G.(2013). An Assessment of Reading Comprehension Practice in Jordan. *Jordan Journal of Educational Sciences*. 9(3), 335-344.
- Alsamadani, H. A. (2009). The Relationship between Saudi EFL College-Level Students' Use of Reading Strategies and Their EFL Reading Comprehension. doctoral dissertation. Ohio University, OH.
- Anjomshoaa L., Golestan S., and Anjomshoaa A. (2012) The Influences of Metacognitive Awareness on Reading Comprehension in Iranian English Undergraduate students in Kerman, Iran. *International Journal of Applied Linguistics & English Literature*. 1(6), 193-198.
- Auerbach, E., & Paxton, D. (1997). "It's not the English thing": Bringing reading research into the ESL classroom. *TESOL Quarterly*, 31(2) 237– 261.
- Barnett, M. A. (1988). Reading through context: How real and perceived strategy use affects L2 comprehension. *Modern Language Journal*, 72: 150-162.
- Cohen, A. (1990) *Strategies in Learning and Using a Second Language*. New York: Longman.
- Estacio, M. J. M. (2013). Bilingual readers' metacognitive strategies as predictors of reading comprehension. *Philippine ESL Journal*, 10, 179-199

## THE RELATIONSHIP BETWEEN METACOGNITIVE READING

- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. *American Psychologist*, 34, 906–911.
- Garner, R. (1987). Metacognition and reading comprehension. Norwood, NJ: Ablex
- Goodman, K. S. (1971). Psycholinguistic universal in reading process. In Pimsleur, P., & Quinn, T. (Ed.), *The psycholinguistic of second language learning*. Cambridge: Cambridge University Press.
- Hoang N. M. (2016). The relationship between reading strategy use and reading proficiency of Vietnamese students in the UK. British Council ELT Master's Dissertation Awards: Commendation. Retrieved from [https://englishagenda.britishcouncil.org/sites/default/files/attachments/dissertation\\_design\\_for\\_publication\\_2016\\_northumbria\\_university.pdf](https://englishagenda.britishcouncil.org/sites/default/files/attachments/dissertation_design_for_publication_2016_northumbria_university.pdf)
- Irvin, J. L., Buehl, D., Radcliffe, B. J., & Irvin, J. L. (2007). *Strategies to enhance literacy and learning in middle school content area classrooms* (3rd ed.). Boston, MA: Pearson/Allyn and Bacon.
- Israel, S. E. (2007). *Using metacognitive assessments to create individualized reading instruction*. Newark, DE: International Reading Association.
- Iwai, Y. (2011). The effects of metacognitive reading strategies: Pedagogical implications for EFL/ESL teachers. *The Reading Matrix*, 11(2), 150-157.
- Karami, H. (2008). *Reading strategies: what are they?* University of Tehran.
- Koda, K. (2005). *Insights into Second Language Reading: A Cross-Linguistic Approach*. Cambridge: Cambridge University Press.
- Koda, K. (2007). Reading language learning: cross linguistic constraints on second language reading development. *Language Learning*, 57(1), 1-44. Retrieved from <http://dx.doi.org/10.1111/0023-8333.101997010-i1>
- Magogwe, J. M. (2013). Metacognitive awareness of reading strategies of University of Botswana English as Second Language students of different academic reading proficiencies. *Reading & Writing*, 4(1). doi:10.4102/rw.v4i1.29.
- Mehrdad, A. G., Ahghar, M. R., & Ahghar, M. (2012). The effect of teaching cognitive and metacognitive strategies on EFL students' reading comprehension across proficiency levels. *Procedia– Social and Behavioral Sciences*, 46, 3757-3763.
- Meniado, J. C. (2016). Metacognitive Reading Strategies, Motivation, and Reading Comprehension Performance of Saudi EFL Students. *English Language Teaching*, 9(3), 117-129.
- Mokhtari, K., & Reichard, C. (2002). Assessing students metacognitive awareness of reading strategies. *Journal of Educational Psychology*, 94(2), 249-259.
- Mokhtari, K., & Reichard, C. A. (2004). Investigating the strategic reading processes of first and second language readers in two different contexts. *System*, 32, 379-394.
- Oxford, R. L., Lavine, R. Z., & Crookall, D. (1989). Language Learning Strategies, the Communicative Approach, and their Classroom Implications. *Foreign Language Annals*, 22(1), 29-39.
- Pei, L. (2014). Does metacognitive strategy instruction indeed improve Chinese EFL learners' reading comprehension performance and metacognitive awareness? *Journal of Language Teaching and Research*, 5(5), 1147-1152.
- Pressley, M., Gaskins, I. W. (2006). Metacognitively competent reading comprehension is constructively responsive reading: how can such reading be developed in students? *Metacognition and Learning*, 1, 99-113.
- Rizan T. N, Maasum, T.M. ,and Maarof, N. (2012). Empowering ESL Readers with Metacognitive Reading Strategies. *Social and Behavioral Sciences*. 69, 1250-1258.

## THE RELATIONSHIP BETWEEN METACOGNITIVE READING

- Raungsawat N.(2009). Professional nurses' reading comprehension in expository texts : effects of age and reading strategies (Master's thesis).
- Salataki, R., & Akyel, A. (2002). Possible effects of strategy instruction on L1 and L2 reading. *Reading in a Foreign Language*, 14, 1-17.
- Sheorey, R. & K. Mokhtari (2001). Coping with academic materials: differences in the reading strategies of native and non-native readers. *System* 29, 431-449.
- Singhal, M. (2001). Reading proficiency, reading strategies, metacognitive awareness and L2 readers. *The Reading Matrix*, 1 (1), 1-23.
- Woolley G. (2011). Reading Comprehension: Assisting Children with Learning Difficulties © Springer Science+Business Media B.V. (p.15)
- Zhang, L. J., & Wu, J. (2009). Chinese senior high school EFL students' metacognitive awareness and reading-strategy use. *Reading in a Foreign Language*, 21(1).