



THE RELATIONSHIP OF STUDENTS' METACOGNITIVE READING STRATEGIES AWARENESS AND READING COMPREHENSION: THE CASE OF THE SIXTH SEMESTER STUDENT OF ENGLISH DEPARTMENT UNIVERSITAS NEGERI PADANG (UNP)

Zuledwi Wahyuni¹, Ratmanida², Leni Marlina³

English Department
Faculty of Languages and Arts
Universitas Negeri Padang
email: zuledwiw@gmail.com

Abstract

This study is about the relationship of students' metacognitive reading strategies awareness and reading comprehension: the case of sixth semester students of English Department Universitas Negeri Padang (UNP). Since it is still doubted whether or not there is a significant correlation between the students' Metacognitive Reading Strategies Awareness and Reading Comprehension, the writer conducted a research to obtain the answers to those questions. Prior to finding out relationship, the study tried to ascertain the level awareness and types strategies that respondents use when they read English academic texts, and their reading performance. Using SORS questionnaire and Test TOEFL with students' k1-15 English department (UNP), the study found out that the awareness of respondents on using metacognitive reading strategies is on medium level. From three categories of metacognitive reading strategies, the Problem-Solving Strategies (PROB) is the most frequently used by respondents. On the level reading comprehension, the respondents got below average or low level. For correlation, the study used Pearson product correlation moment. The study reveals that there is no correlation between metacognitive reading strategies awareness and reading comprehension.

Keywords: Metacognition, Reading Comprehension, Metacognitive Reading Strategies Awareness

A. INTRODUCTION

¹ English ELTSP of English Department of FBS Universitas Negeri Padang graduated on September 2018

² Advisor 1, Lecturer of English Department of FBS Universitas Negeri Padang

³ Advisor 2, Lecturer of English Department of FBS Universitas Negeri Padang



Reading is one of the skills to be learnt by the students. It is an essential receptive skill for learners of English as a foreign language and an important skill to be mastered in order to ensure success. The success is not only in learning English, but also in learning any subject where reading in English is required. Recent research show that any people who do not learn to read early and well will not easily master other skill and knowledge. It shows that reading as language skill has a big role in acquiring language because it gives amount of language input. For that reason, reading always become a main lesson unit in any level of English lesson.

The purpose of reading is to understand or comprehend the text. Grabe and Stroller (2011: 11) state that reading comprehension is the ability to understand information in a text and interpret it appropriately. Reading comprehension involves learners' background knowledge, using numerous strategies and the environmental factor within the process. First factor that influence reading comprehension is learners' background knowledge. It refers to what the learners/readers have already known related to the topics they are working on. It enables them to predict or interrelate with the existing knowledge or experience with reading text. Second factor that influence reading comprehension is using numerous strategies. It is also influenced by the readers' ability in organizing various strategies according to the needs. Last factor that influence reading comprehension is environmental factors. It is such as self-planning, self-evaluation, self-regulation and motivation of the readers also come to be important aspects need to be concerned.

Nevertheless, reading comprehension difficulties still become a big problem for some students. First, students lack proper metacognitive strategies to manage their own reading effectively. Grabe and Stoller (2002) stressed that to become a highly proficient L2 reader is very difficult. Snow (2002) found that many L2 learners have difficulties in understanding what they read especially academic texts. Also, academic second language readers, though they have adequate language competency, to some extent still have difficulties in comprehending those academic texts thoroughly (Eskey: 2005).

Second, students are uncertain of what metacognitive strategies are and how to use them. Poor readers, especially, do not know what methods are efficient for academic reading, nor do they know how to improve their reading ability. Noticeably, in academic reading comprehension, if students lack metacognitive knowledge, they feel puzzled in adopting the appropriate reading methods and reading strategies (Shokrpour & Fotovatian: 2009). As a result, they cannot self-plan, self-monitor, self-regulate and self-evaluate their own reading skills properly. Therefore, academic reading comprehension has become a major challenge.

To solve this problem, students can use metacognitive reading strategies to comprehend the reading text. In this case, metacognitive reading strategy becomes one of crucial aspects for learners in comprehending the reading text. Subjectively, Ahmadi, Ismail & Abdullah (2013: 235) asserts that reading comprehension is a complex process involving a combination of text and readers and refers to the ability of readers to understand the surface and the hidden

meanings of the text using metacognitive reading strategies. The awareness of metacognitive reading strategy influences learners comprehension because it controls the ways learners arrange their interaction with the context and also for how the use of strategies is related to effective reading comprehension (Mokhtary and Sheorey, 2003: 6).

In reading strategy context, the significance of the metacognitive strategies cannot be neglected. It is adequately substantiated by some researchers conducted in metacognition area such as Jacob & Paris' (1987) study in children's metacognition about reading; they found that by measuring metacognition directly helps teachers to diagnose specific misconceptions and nonstrategic reading. In this research, they use several instrument such as Index of Reading Awareness (IRA) and Standardized Comprehension Test. Furthermore, Huang & Newbern (2012) conducted experimental study about the impact of metacognition toward reading comprehension. They come up with the result that metacognition has significant influence toward readers performance and comprehension. It assuredly discloses that metacognitive strategies increase readers' motivation and their understanding.

In other studies, many researchers such as Kolic-Vehovec (2006) and Young & Fry (2008) conducted correlational study concerning metacognitive reading strategies and reading comprehension. Kolic-Vehovec uses some instrument to do this research such as error correction and text sensitivity tasks from the Metacomprehension test (Pazzaglia, De Beni & Cristiante, 1994) and the cloze task to measure comprehension and a strategic reading questionnaire. Meanwhile, Young & Fry use Metacognitive Awareness Inventory (MAI) to examine this research. The result reveals that there are significant relationships between metacognitive reading strategies awareness and reading comprehension. However, more proficient readers used more high awareness in using metacognitive strategies than the lowers'.

Based on the problems and review research above, the researcher, then, set out to investigate on the relationship of students' metacognitive awareness of reading strategies and reading comprehension at Padang State University.

B. RESEARCH METHOD

1. Population

The population of this research was the sixth semester students of the English Department of Padang State University in the academic year 2017/2018. The total population was 155 students from five classes. They were chosen as subjects of the research for the following reasons:

- a. The students were in the same grade and have been studying English for the same period of time.
- b. The students have been familiar with English.
- c. The students have already learned course of Reading 1, Reading 2, Advanced Reading, and Extensive Reading.

Table 1 Five Classes

No	Class	Students
1	K1	30
2	K2	34
3	K3	31
4	NK1	30
5	NK2	30
TOTAL		155

2. Sample

The samples for the research were selected by using applying random sampling technique. The reasons why researcher choose random sampling are first, it the best way to obtain representative sample. According to Gay, Geoffrey, and Peter (2009:125) even though random sampling has no technique, but it guarantees a representative sample. Second, random sampling is also easy to conduct.

Because of the reason above, she chose random sampling in this research. Moreover, the researcher did not take the sample based on the students individually, but based on the group of students in class with the following reasons:

- a) The students who become the object of the study are in the same level.
- b) There is no superior class in the class division.

The researcher took one class from five classes that became the member of population. The procedures are: first, the researcher wrote the name of each member of population in a piece of paper and rolls it. Then, she put the paper in a box and shake it. Finally, the researcher took one of the roll papers and open it to know which class who became the sample. The result was class K1-15 as the sample of the study.

3. Instrumentation

In this study, whole data on both variables (metacognitive reading strategies awareness and reading comprehension) were collected in an equitably short time. As data collector, questionnaire about metacognitive awareness (Survey of Reading Strategies/ SORS) and test for reading comprehension were used.

4. Technique of Data Collection

The techniques that were used in collecting data include SORS questionnaires and reading comprehension tests in the form of multiple choice tests. There were several steps of data collection in this research.

These procedures described as follow:

- a. The students were asked to enter the room that has been prepared for taking the data.
- b. The students were asked to listen the explanation from researcher about what will they do when the process of collecting data is ongoing.

- c. The students were asked to fill in questionnaire SORS (30 minute), and after 30 minutes, the researcher collected the questionnaire.
- d. The students were asked to answer the test of reading comprehension about 55 minute in the answer sheet.
- e. The researcher collected it the test.
- f. The data typed in the Microsoft Excel

5. Technique of Data Analysis

After proposing the data collecting instruments (questionnaire and reading comprehension test), the collected data from the respondents would be analyzed in three stages. Stage one could be analysis of data from questionnaire, then analysis of reading comprehension score and analysis of correlation of those both data. More specifically, the following stages are explored as below.

a. Analysis of the Level Students' Awareness of Metacognitive Strategies and types reading strategies.

The data gained from questionnaire purposed by Mokhtary and Sheorey (2002) will be analyzed by counting and finding the average of the frequency to determine the level of metacognitive reading strategies used by the respondents. Mokhtary and Sheorey also provide the key to classify the score averages into high strategies as scoring 3.50- 5.0 for higher usage, 2.50-3.49 for medium usage, and 2.49 or below for low usage.

Table 2 Frequency scales of strategy use (Mokhtary and Sheorey, 2002: 4)

Mean Score	Frequency	Evaluation
4.5-5.0	High	Always or almost always
3.5-4.49		Usually
2.5-3.49	Moderate	Sometimes
1.5-2.49		
1.0-1.49	Low	Only occasionally
		Never or almost never

Mokhtary and Shorey divide 3 types reading strategies in their questionnaire. They are Global Reading Strategies (GLOB), Problem-Solving Strategies (PROB), Support Reading Strategies (SUP). The researcher determines reading strategies type by calculating how many students use those types reading strategies.

b. Analysis of the Level Students' TOEFL Test Reading Comprehension Score

To acquire valid score that defines students' ability in the test, it needs clear criteria to assess their work. To qualify this need, the writer calculated the score of the students in the test. Basically, the method was by counting how many numbers

true. Then, based on that numbers, the writer will convert the score based on TOEFL reading scale score.

The range of final score reading is from 0-30. To know the level of students' reading comprehension, Magoosh TOEFL has compiled ETS's (Educational Testing Service) performance feedback score ranges and levels into the hand chart.

Table 3 Hand chart of TOEFL Results and Levels

Section	Level	Total Points	Reading Score Range
Reading or Listening	High	34-42	22-30
	Intermediate	26-33	15-21
	Low	0-25	0-14

The table above illustrates there are three levels of reading comprehension based on total points and reading score range. First, if students get total points 0-25 from the TOEFL Test, the students will get reading score range 22-30. It means that the level of students' reading comprehension is low. Second, if students get total points 26-33 from the TOEFL Test, the students will get reading score range 15-21. It means that the level of students' reading comprehension is Intermediate. The last, if students get total points 34-42 from the TOEFL Test, the students will get reading score range 22-30. It means that the level of students' reading comprehension is high.

c. *Analysis of Correlation between Metacognitive Reading Strategies Awareness and Reading Comprehension*

To investigate the relationship between students' metacognitive awareness of reading strategies and reading comprehension, the researcher examined the data from TOEFL Test and SORS Questionnaire by computing the data by applying the formula of the Pearson by using Microsoft Excel.

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum X^2 - (\sum X)^2\} \{N \sum Y^2 - (\sum Y)^2\}}}$$

Winarso (2016) stated that to determine the relationship between two variables must fulfill the criteria, if

Table 4 The criteria of two variables.

Score	Description
0,00 – 0,199	Very Low
0,20 – 0,399	Low
0,40 – 0,599	Average

0,60 – 0,799	High
0,80 – 1,0	Very High

RESULT AND DISCUSSION

1. Research Finding

a. The Level of Students' Awareness in Using Metacognitive Reading Strategies

The results of the students' awareness in utilizing metacognitive reading strategies data were partly presented in two sections. The first section presents overall strategies awareness of students. Then the second section will be the data about reading strategies type to be used more by students during reading.

To interpret the findings, the range intervals demonstrating the frequency of strategy use from *Always* to *Never* were calculated for the proposed data collection tool (SORS). Therefore, the mean scores between 1-2.49 was relevant to *low*, 2.59-4.49 was relevant to *moderate/medium*, and 4.5-5 was relevant to *high*.

Table 5
Students' Metacognitive Reading Strategies Awareness Score

No	Students	Score	Mean	Level
1	01	99	3,3	Medium
2	02	110	3,7	High
3	03	96	3,2	Medium
4	04	110	3,7	High
5	05	106	3,5	High
6	06	110	3,7	High
7	07	88	2,9	Medium
8	08	86	2,9	Medium
9	09	92	3,1	Medium
10	10	99	3,3	Medium
11	11	100	3,3	Medium
12	12	105	3,5	High
13	13	102	3,4	Medium
14	14	118	3,9	High
15	15	86	2,9	Medium
16	16	109	3,6	High
17	17	88	2,9	Medium
18	18	103	3,4	Medium
19	19	108	3,6	High
20	20	97	3,2	Medium
21	21	105	3,5	High
22	22	104	3,5	High
23	23	98	3,3	Medium
24	24	94	3,1	Medium
25	25	99	3,3	Medium
26	26	88	2,9	Medium
27	27	87	2,9	Medium
28	28	109	3,6	High
29	29	109	3,6	High

TOTAL	2905	96,86667	Medium
AVERAGE	100,17	3,3	

Based on the collective finding provided, it shows an overview of students' awareness in using metacognitive reading strategies entire twenty nine students. The result enunciate that the level students' metacognitive reading strategies awareness during reading is 3,3. It also indicates that students' metacognitive reading strategies awareness was classified as moderate or medium level.

b. Students' Metacognitive Reading Strategies Type

Table 6
 Students' Metacognitive Reading Strategies Types

No	Students	Reading Strategies Type		
		GLOB	PROB	SUP
1	01		√	
2	02		√	
3	03		√	
4	04		√	√
5	05		√	
6	06			√
7	07			√
8	08			√
9	09		√	√
10	10		√	
11	11		√	
12	12		√	
13	13		√	
14	14		√	
15	15		√	
16	16			√
17	17			√
18	18		√	
19	19		√	
20	20		√	
21	21			√
22	22		√	
23	23		√	
24	24		√	
25	25		√	
26	26		√	
27	27		√	
28	28	√	√	
29	29		√	
Total		1	23	10

Based on the collective finding provided, it shows that there are 9 students use GLOB strategies, 23 students use PROB strategies, and 13 students use SUP strategies. Therefore, the data indicates that PROB strategies were classified as foremost reading strategies type to be used more by students during reading. Afterward, the second preference of metacognitive reading strategies usage was SUP strategies with 13 students. Lastly, the level of GLOB strategies was placing the lowest level with 9 students.

c. The Level of Students' Reading Comprehension

Table 7
Students' Reading Comprehension Score

No	Students	Total	Score (TOEFL)	Level
1	01	28	16	Intermediate
2	02	21	10	Low
3	03	25	14	Low
4	04	19	8	Low
5	05	17	7	Low
6	06	26	15	Intermediate
7	07	30	18	Intermediate
8	08	27	16	Intermediate
9	09	25	14	Low
10	10	26	15	Intermediate
11	11	29	17	Intermediate
12	12	21	10	Low
13	13	26	15	Intermediate
14	14	24	13	Low
15	15	27	16	Intermediate
16	16	24	13	Low
17	17	26	15	Intermediate
18	18	24	13	Low
19	19	12	5	Low
20	20	24	13	Low
21	21	20	9	Low
22	22	29	17	Intermediate
23	23	29	17	Intermediate
24	24	21	10	Low
25	25	25	14	Low
26	26	19	8	Low
27	27	29	17	Intermediate
28	28	20	9	Low
29	29	26	15	Intermediate
Total		699	379	Low
Average		24	13	

According to the results of reading comprehension test, the range of gained score was around 5-18. The mean score of whole data was 13 that indicated the level of students' reading comprehension is low. Hence, it was found that 16 students or more than 50% of total amount were below the average or low and only 13 students got intermediate level. The overall mean further indicates that the students did not perform properly in the reading comprehension test.

d. The Relationship of Students' Metacognitive Reading Strategies Awareness and Reading Comprehension

To interpret the research findings, the researcher uses Pearson Product Moment Correlation Formula to compute the data that have been obtained as follows:

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{\{N\sum X^2 - (\sum X)^2\}\{N\sum Y^2 - (\sum Y)^2\}}}$$
$$: \frac{29(53682835,6) - (1937)(1862)}{\sqrt{\{29(130298,2) - (1936)^2\}\{29(121532) - (1862)^2\}}}$$
$$: -0,408753055$$

After the researcher calculated the formula of product moment, it showed that the correlation index between students' metacognitive reading strategies awareness and their reading comprehension score was no correlation. It means that there is no relationship between students' metacognitive reading strategies awareness and students' reading comprehension

2. Discussion

The findings are presented in the order of the research questions posed earlier are as follows.

a. Metacognitive Reading Strategies Awareness

As reflected in the findings, the level of students' metacognitive reading strategies awareness is medium. It can be inferred that the different metacognitive reading strategies are moderately used by the respondents when reading academic texts. The moderate use can be attributed to non-familiarity of the students with the existence of some metacognitive reading strategies that could help them comprehend texts.

This result supports the general research findings of Tavakoli (2014), Alsamadani (2009), Yuksel and Yuksel (2012) on Iranian, Saudi, and Turkish EFL students' moderate awareness in using metacognitive reading strategies. It also supports the findings of Hong-Nam and Page (2014) on the medium level moderate use of metacognitive reading strategies of ELLs in America. However, this particular result of the study does not coincide with the general findings of previous studies that shows high overall use of metacognitive reading strategies awareness by EFL students in Yemen (Al-Sobhani, 2013) and by those ESL students in Malaysia (Pammu, Amir, & Maasum, 2014; Maasum & Maarof, 2012)

and in Botswana (Magogwe, 2013). Based on the findings, the writer conclude that students' awareness in using of metacognitive reading strategies vary depending on language learners' knowledge in language and environment.

b. Students' Metacognitive Reading Strategies Type

The findings of metacognitive reading strategies types in the study show that the most frequently used strategies are the Problem Solving Strategies (PROB). This result supports the findings of Al-Sobhani (2013) and Yuksel and Yuksel (2012) having EFL students in Yemen and Turkey that actively use Problem Solving Strategies (PROB) at a high level. In ESL contexts, the results also show that ESL students in Indonesia (Pammu, Amir, & Maasum, 2014), Botswana (Magogwe, 2013), in USA (Hong-Nam & Page, 2014), and in Malaysia (Maasum & Maarof, 2012) use Problem Solving Strategies at a high level. This research findings shows that Problem-Solving Strategies are widely and actively used by different levels of learners in different environments.

c. Students' Reading Comprehension

On reading comprehension level, the findings revealed that the respondents performed below average (Low). It means that most of the respondents did not perform well in the reading comprehension test. The finding supported by the results of the TOEFL Reading tests that was conducted in January 2018 where examinees scored in reading an average of 13 out of 30. Looking at the result, it seems that moderate/medium level metacognitive reading strategies awareness when reading academic texts does not yield expected result in reading comprehension performance.

d. The Relationship of Students' Metacognitive Reading Strategies Awareness and Reading Comprehension

To determine the relationship between students' metacognitive reading strategies awareness and reading comprehension, Pearson Product Moment Correlation Moment was carried out. Based on the results, there is no correlation between the use of metacognitive reading strategies and reading comprehension. Previous studies show that when readers use metacognitive reading strategies, they perform better in reading. Unfortunately, it did not happen in the current study. Despite the students' awareness in using metacognitive reading strategies, their reading comprehension performance was still below average. The above finding confirms the findings of Alsamadi (2009) showing no a significant relationship between Saudi EFL learners' comprehension performance and their use of reading strategies. It also affirms the findings of Mehrdad, Ahghar, and Ahghar (2012) reveal that use of metacognitive reading strategies has no a significant relationship on the reading comprehension performance of elementary and advanced level Iranian EFL students. Lastly, it backs up the findings of Pei (2014) reveals that use of metacognitive reading strategies after a training intervention does not affect reading comprehension performance of Chinese students.

This study is one of the few studies disproving the findings of previous studies that show positive relationship between metacognitive reading strategies and reading comprehension performance. This could be happen because the students tend to rate themselves high in the metacognitive reading strategies inventory

while having limited knowledge in language, moreover in Indonesia (English is foreign language/EFL), that can negatively affect their reading comprehension performance. As Alsamadani (2009) mentioned in his study, the awareness in using metacognitive reading strategies do not guarantee satisfactory reading comprehension performance as there are still many other factors that obstruct during the reading process that could affect the overall comprehension performance. Mehrdad, Ahghar, and Ahghar (2012) also explain that the effect of use of metacognitive reading strategies on reading comprehension vary depending on the reader's existing knowledge and environment.

C. CONCLUSION & SUGGESTIONS

1. CONCLUSION

Based on the result of the study, it can be concluded as follows:

- a. The average score of the students' metacognitive reading strategies awareness is 100,86 (mean 3,4) with medium level. 12 student (41.4%) gets high level, 17 students (58.6%) get low level.
- b. PROB strategies were classified as foremost reading strategies type to be used more by students during reading with 23 students. Afterward, the second preference of metacognitive reading strategies usage was SUP strategies with 13 students. Lastly, the level of GLOB strategies was placing the lowest level with 9 students.
- c. The average score of the students' reading comprehension is 24 (13 score TOEFL Test) with low level. 13 students (44.8 %) get intermediate level, and 16 students (55. 2%) get low or below average level.
- d. There is no significant relationship between the students' metacognitive reading strategies awareness and reading comprehension. This result is obtained from the computation of the relationship of the students' metacognitive reading strategies awareness and reading comprehension applied to the sample is $-0,408753055$. Therefore, the correlation between the two variables above is no correlation.

2. Suggestions

Regarding to the present empirical findings:

1. The present puts forward a number of suggestions for further research. This study could be further extended to examine the effectiveness of metacognitive reading strategies toward reading comprehension by trying another complex research method such as experimental research or class action research design.
2. The other researcher can extend further research in English linguistic and literature study program. It is hope the researcher can find new result or findings to enrich the knowledge.
3. The other research can also extend to study to the differences metacognitive of between English education study program and English literature & linguistic study program.

Note: This article was written based on Zuledwi Wahyuni's thesis under the supervision of Dr. Ratmanida, M. Ed, TEFL and Leni Marlina, S.S, M.A

BIBLIOGRAPHY

- Ahmadi, M, R., Ismail, H, N., & Abdullahm, M, K, K. (2013). The Importance of Metacognitive Reading Strategy Awareness in Reading Comprehension. *English Language Teaching/ Canadian Center of Science and Education*, 10, pp.235-244.
- Alsamadani, H. A. (2009). The relationship between Saudi EFL college-level students' use of reading strategies and their EFL reading comprehension. Retrieved from <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiTytHehcjAhXKNI8KHaKmBhoQFjAAegQIARAC&url=http%3A%2F%2Fciteseerx.ist.psu.edu%2Fviewdoc%2Fdownload%3Fdoi%3D10.1.1.842.5495%26rep%3Drep1%26type%3Dpdf&usg=AOvVaw25bAQFqMnCuVmbH1ny68zp>
- Al-Sobhani, Y. A. (2013). Metacognitive reading strategies use by Yemeni EFL undergraduate university students. *Frontiers of Language and Teaching*, 4, 121-130.
- Anderson, J, N. (2002). *The Role of Metacognition in Second Language Teaching and Learning*. Washington DC: ERIC Digests.
- Baker, L. (2010). Metacognition. In Vibeke, G, A (Ed). *Learning and Cognition in Education*, pp. 128-134. Oxford: Elsevier.
- Dabarera, C., Renandya, W, A., & Zhang, L, J. (2014). The impact of metacognitive scaffolding and monitoring on reading comprehension. *System*, 42, pp. 462-473.
- Grabe, William. (2002) *.Teaching & Researching Reading*. Britain: Pearson Education.
- Hong-Nam, K. & Page, L. (2014). ELL high school students' metacognitive awareness of reading strategy use and reading proficiency. *Teaching English as a Second or Foreign Language: The Electronic Journal for English as a Second Language*, 18(1). Retrieved from <http://www.tesl-ej.org/wordpress/issues/volume18/ej69/ej69a4/>
- Jacobs, J. E & Paris, S. G. (1987). Children's Metacognition About Reading: Issues in Definition, Measurement, and Instruction. *Educational Psychologist*, 22, pp: 255-278.

- Kolic-Vehovec, S & Bajanski, I. (2006). Metacognitive strategies and reading comprehension in elementary-school students. *European Journal of Psychology of Education*, 21, pp 439-451.
- Kuo, Yu-Chin, Yang, Szu-Wei and Hsin-Hung Kuo. (2010). *Learning Bridge: A Reading Comprehension Platform with Rich Media*. Journal World Academy of Science, Engineering and Technology.
- Livingston, J, A. (2003). Metacognition: An Overview. Retrieved: August, 2015 from Educational Resources Information Center (ERIC).
- Maasum, T., & Maarof, N. (2012). Empowering ESL readers with metacognitive reading strategies. *Procedia – Social and Behavioral Science*, 69, 1250-1258. <http://dx.doi.org/10.1016/j.sbspro.2012.12.058>
- Maggioni, L & Alexander, P, A. (2010). Knowledge Domain and Domain Learning. In Vibeke, G, A (Ed). *Learning and Cognition in Education*, pp.118-127. Oxford: Elsevier.
- Magogwe, J. M. (2013). Metacognitive awareness of reading strategies of University of Botswana English as a second language students of different academic reading proficiencies. *Reading and Writing*, 4(1), 1-8. Retrieved from <http://dx.doi.org/10.4102/rw.v4i1.29>
- Matlin, M, W. (2009). *Cognition (7th ed)*. New Jersey: John Wiley & Sons, Inc.
- 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. <http://dx.doi.org/10.1016/j.sbspro.2012.06.142>
- Mokhtari, K & Sheorey, R. (2002). Measuring ESL students' awareness of reading strategies. *Journal of Developmental Education*, 25, pp. 2-10.
- Nagao, H. (2002). *Using Top-Down Skills to Increase Reading Comprehension*. Educational Resources Information Center (ERIC).
- Nokes, T, J., Schunn, C, D & Chi, M, T, H. (2010). Problem Solving and Human Expertise. In Vibeke, G, A (Ed). *Learning and Cognition in Education*, pp. 144-117. Oxford: Elsevier.
- Pammu, A., Amir, Z., &Maasum, T. (2014). Metacognitive reading strategies of less proficient tertiary learners: A case study of EFL learners at a public university in Makassar, Indonesia. *Procedia – Social and behavioral Scences*, 118, 357-364. <http://dx.doi.org/10.1016/j.sbspro.2014.02.049>

- Pei, L. (2014). Does metacognitive strategy instruction indeed improve Chinese EFL learners' reading comprehension performance and metacognitive awareness? *Journal of Language Teaching and Research*, <http://dx.doi.org/10.4304/jltr.5.5.1147-1152>
- Philips, Deborah. (2007). Longman: Preparation Course for the TOEFL Test, Second Edition, pp. 13-60. Pearson Education, Inc.: 10 Bank Street, White Plains, NY 10606.
- Pons, F., Rosnay, M, D & Cuisnier, F. (2010). Cognition and Emotion. Vibeke, G, A (Ed). *Learning and Cognition in Education*, pp. 78-84. Oxford: Elsevier.
- Tavakoli, H. (2014). The effectiveness of metacognitive strategy awareness in reading comprehension: The case of Iranian university EFL students. *The Reading Matrix*, 14(2), 314-336.
- Treiman, R. (2001). Reading. In M. Aronoff and J. Rees-Miller (Eds.), *Blackwell Handbook of Linguistics* (pp. 664- 672). Oxford: Blackwell.
- Wiley, J & Jee, B, D. (2010). Cognition: Overview and Recent Trends. In Vibeke, G, A (Ed). *Learning and Cognition in Education*, pp. 3-9. Oxford: Elsevier.
- Winarso, Bambang. (2016). Cara Menghitung Nilai Korelasi dengan Menggunakan Microsoft Excel 2010. Retrieved on August 17, 2017 from
- Woolley, G. (2011). Reading Comprehension: Assisting Children with Learning Difficulties. *Springer Science+Business Media B. pp 15-33*.
- Young, A & Fry, J, D. (2008). Metacognitive awareness and academic achievement in college students *Journal of the Scholarship of Teaching and Learning*, 8, pp. 1-10.
- Yuksel, I., &Yuksel, I. (2012). Metacognitive awareness of academic reading strategies. *Procedia – Social and Behavioral Sciences* <http://dx.doi.org/10.1016/j.sbspro.2011.12.164>