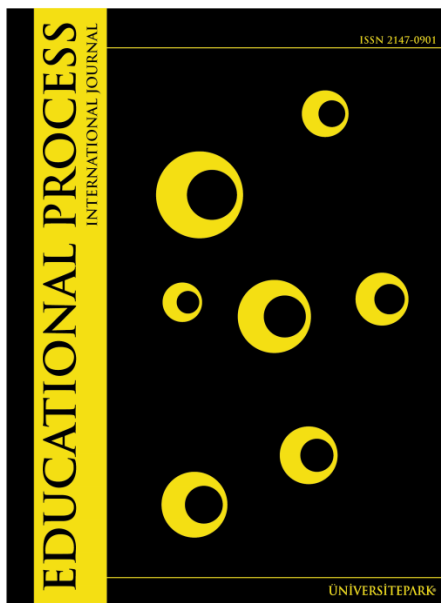




Educational Process: International Journal

ISSN: 2147-0901 | e-ISSN: 2564-8020 | www.edupij.com

Educational Process International Journal • Volume 7 • Issue 2 • 2018

Metacognitive Online Reading Strategies among Pre-Service EFL Teachers in Indonesia

Heri Mudra

To cite this article: Mudra, H. (2018). Metacognitive Online Reading Strategies among Pre-Service EFL Teachers in Indonesia. *Educational Process: International Journal*, 7(2), 151-164.

To link to this article: <http://dx.doi.org/10.22521/edupij.2018.72.5>

Heri Mudra, State Islamic Institute of Kerinci, Indonesia. (e-mail: mudraheri@gmail.com)

Metacognitive Online Reading Strategies among Pre-Service EFL Teachers in Indonesia

HERI MUDRA

Abstract

The study aimed to establish the metacognitive online reading strategies used by pre-service EFL teachers and to describe their experiences in employing the strategies. This mixed-methods study employed 65 participants ($n = 65$). The data were collected by using Online Survey of Reading Strategies (OSORS), as developed by Anderson (2003), and through a semi-structured interview. The findings showed that the subscale Global Reading Strategies (GLOB) was employed most frequently, followed by Problem Solving Strategies (SOLV) and then Support Strategies (SUPP). The most frequent levels of strategies included guessing the contents, scrolling through the texts, associating schemata and current information, using context clues, using tables or pictures, pausing and thinking about the contents, using printed texts, and translating the contents into Indonesian. The interview also reported that the strategies employed were focusing on simplified texts, focusing on colorful texts, translating texts into Indonesian, reading for fun, and utilizing schemata. In short, various strategies can be employed to comprehend and increase better understanding of the online texts.

Keywords: metacognition, online reading strategies, English as a foreign language.



DOI: 10.22521/edupij.2018.72.5

EDUPIJ • ISSN 2147-0901 • e-ISSN 2564-8020

Copyright © 2018 by ÜNİVERSİTEPARK

edupij.com

Introduction

Reading is a skill that enables readers to gain various information from texts. Such information needs to be comprehended and adhered by readers who follow rules of the reading process. The rules consist of strategies that should be considered before reading. A number of studies depict some evidence that successful readers employ several strategies towards the reading process (Anastasiou & Griva, 2009; Bolanos, 2012; Chen & Chen, 2015; Ikeda & Takeuchi, 2006; Mistar, Zuhairi, & Yanti, 2016; Pang, 2008; Raftari, Seyyedi, & Ismail, 2012). The strategies are prepared before the reading process begins, and then implemented during the reading process. As for successful readers, the reading strategies have reached the metacognitive level (Hudson, 2007). This is due to readers having used their metacognition to process information they may have found, for example from surfing the Internet, and selecting meanings of the information from the text reviewed. Metacognitive reading consists of planning, monitoring, self-assessing, regulating, and self-monitoring (Mokhtari & Sheorey, 2008; Singhal, 2001). Various reading sources can be one of the options to discover how readers' metacognition works.

Moreover, reading sources can be in form of digital or online reading (OR) and printed text reading (Tanner, 2014). Online reading is mainly discussed since it is the focus of this study. Before further considering how metacognition affects online reading activities, it should be understood what is meant by OR. Leu, Kinzer, Coiro, and Cammack (2004) stated that online reading is an academic activity that enables readers to surf the Internet in order to solve problems in the mind by implementing certain strategies whilst reading online. Online reading as an activity has become more popular among readers as a means to obtaining information such as current news, problem solving, or knowledge. A number of studies have revealed that online reading promotes new literacies in reading activities in which new strategies and procedures are employed (Coiro, Knobel, Lankshear, & Leu, 2008; Kingsley & Tancock, 2014). Reading online is a better choice for readers because the Internet provides millions of informational items which can be easily browsed by the online reader.

Castek, Zawilinski, McVerry, O'Byrne, and Leuet (2011) mentioned the importance of online reading activities, namely "reading to identify important questions, reading to locate information, reading to evaluate information critically, reading to synthesize information, and reading and writing to communicate information". Readers surf the available online reading when they have questions in mind that they need to resolve. Readers construct questions based on sizeable ideas they may have in their mind, and ideas specific to the online source they have referenced. Information is surfed and located either specifically or generally through online reading activities (Coiro & Dobler, 2007; Dreher, 1993; Leu et al., 2011). The importance of OR is also concerned with "synthesizing information presented in the text" (Cummins & Gerard, 2011), as well as OR being activities associated with writing as readers interact via "e-mail, text messages, blogs, wikis" (Leu, Kinzer, Coiro, Castek, & Henry, 2013). Readers communicate with other readers and use information effectively and properly by utilizing appropriate online sources such as the World Wide Web (Coiro, 2007). In short, OR enables readers to seek out and analyze information as the primary sources of reading by using new literacies such as reading strategies.

Online readers should employ various strategies when reading online texts. OR strategies are paramount in searching for particular information via the Internet (Henry,

2006). The strategies used in OR are either “bottom-up” or “top-down” (Akyel & Ercetin, 2009; Fatemy & Vahedi, 2014; Huang, 2012; Huang, Chern, & Lin, 2009; Kurby, Britt, & Magliano, 2005). Each online reader chooses their own strategies when searching for information. The choice of online reading strategies depends on the readers’ final objectives determined before OR commences. Each strategy allows the reader to search for specific information effectively and based on the expectations of the OR (Pressley & McCormick, 1995). As for careful readers, the strategies used in OR are prepared, speculated, controlled, and evaluated (Coiro & Dobler, 2007). Successful readers also relate previous knowledge with current knowledge searched and build better comprehension towards texts (Bernhardt, 1991; Nuttall, 1996). This is an effective way of utilizing advancing technology to find specific information during OR (Carrel & Floyd, 1987). Therefore, strategies can be better implemented and become more appropriate strategies in order to obtain information from online sources.

The readers who read online sources need to be aware of what they need to know, how to surf information intensively and accurately, what kind of information they have to find, and how to evaluate what they search for. These abilities are also called “metacognitive strategies” (Duke & Pearson, 2002). These strategies help readers to make a decision related to what they are doing and what they should do in term so of the text being read (Balajthy, 1990). Mokhtari and Sheorey (2002) divided metacognitive strategies into three subscales, namely Global reading strategies, Problem-solving strategies, and Support strategies. The Survey of Reading Strategies (SORS) was developed and constructed by Mokhtari and Sheorey (2002). Another expert, Anderson (2003), adapted the survey to focus on online reading activities as the “Online Survey of Reading Strategies” (OSORS), which consists of 38 items.

This current study aimed at revealing the types of metacognitive online reading strategies used by pre-service EFL teachers in a public institute in Kerinci, Indonesia. Another focus of the study was to describe how pre-service EFL teachers experience metacognitive strategies during OR. In short, the study focused on solving two research questions:

- What are the metacognitive online reading strategies used by pre-service EFL teachers?
- How do pre-service EFL teachers experience implementing metacognitive online strategies?

Methodology

This study employs a mixed-methods design, combining both quantitative and qualitative approaches. The first findings of a mixed-methods study are quantitative, followed by analyzing qualitative data in order to reveal different perspectives (Creswell, 2014). It is pointed out that the data collected using this research design reveals that the collection and analysis are not separated; with the researcher needing to merge, integrate, link, or embed the two strands of data (Creswell, 2012; Johnson, Onwuegbuzie, & Turner, 2007).

65 pre-service EFL teachers at the Islamic State College of Kerinci, Indonesia, participated in this study. Convenience sampling technique which depends on the availability

of respondents was employed to select the samples for this study. The average age was 20 years, with a range from 19 to 21 years. The participants were preparing for their teaching practicum within several high schools. In addition, they were also active in surfing online sources such as social networks, the World Web Wide, blogs, and e-mails.

As mentioned previously, the current study employed both quantitative and qualitative approaches. Two instruments were used, namely a questionnaire and interviews. As for the quantitative data, the Online Survey of Reading Strategies (OSORS) adapted by Anderson (2003) was employed in this study. OSORS consists of 38 items within three categories: Global Reading Strategies (18 items), Problem Solving Strategies (11 items), and Support Strategies (9 items). Each item used a five-point, Likert-type scale, ranging from 1 (never or almost never) to 5 (always or almost always). The Cronbach's alpha for all items of OSORS was .92. As for the subscales, for Global Reading Strategies it was .77; Problem Solving Strategies was .64; and Support Strategies was .69. The detail proves that OSORS is a survey instrument with a high reliability level.

The qualitative data were collected using a semi-structured interview. This kind of interview not only enables the researcher to use questions based on the goal, but also construct new statements or questions based on the interviewee's response (Lodico, Spaulding, & Voegtle, 2006; Packer, 2011; Pole & Morrison, 2003). The question asked was "What kinds of strategies did you use during online reading?" In short, the interview was conducted to reveal the experiences of the pre-service EFL teachers in employing metacognitive online reading strategies.

Firstly, to collect the quantitative data the researcher asked the respondents to complete the OSORS in the classroom setting. The respondents were given two hours to think about and complete the survey. This amount of time was allocated as they needed adequate time to decide on accurate responses. The respondents were divided into three different classes in order to aid their concentration with less distraction. Having completed the survey, they were asked to leave their completed questionnaire on the desk. Secondly, 10 pre-service EFL teachers were selected as interviewees. They were considered as good online readers because they actively in OR and obtained high scores on a Reading course. The techniques for conducting the interviews were face-to-face and focus group discussion (FGD). The face-to-face interview and the FGD are considered appropriate techniques because the interviewer is able to elicit responses from interviewees efficiently and concurrently (Babbie, 2011; Bowden & Galindo-Gonzales, 2015).

The focus of the quantitative data analysis was to determine the Mean (*M*) and Standard Deviation (*SD*) of each strategy by finding out the frequency of each item. Each strategy was classified into groups, which allowed the researcher to calculate the data more effectively. The level to averages for each strategy can be high (3.5 or higher), medium (2.5 to 3.4), or low (2.4 or lower) (Anderson, 2003). This means that the higher the Mean value is, the more frequent the strategies are used by the online readers. The results of each strategy were statistically compared with the data analyzed using SPSS 16.

As for the results of the interview, Kvale and Brinkmann's (2009) interview analysis steps were employed. The first step was examine and comprehend the raw data of the interview; the second step was to ascertain the deep meaning of each response; the third step was to simplify the deep meaning; the fourth step was to adapt the deep meaning and analyze it

based on the objectives of the interview; and, the last step was to draw independent conclusions based on the deep meaning of each response. In line with this approach, the data was coded for each interviewee as T1, T2, T3, T4, T5, and T6. Actual names of the interviewees were not attached as no permission had been granted from the interviewees to do so.

Results

Metacognitive online reading strategies of pre-service EFL teachers

There are three subscales of OSORS, namely Global Reading Strategies (GLOB), Problem Solving Strategies (SOLV), and Support Strategies (SUPP). Each subscale was disseminated by presenting a table of statistical estimation and a description of the table. Table 1 details the first subscale, GLOB.

Table 1. Means, Standard Deviations, and Levels of Global reading strategies ($n = 65$)

Categories	Strategies	Mean	SD	Level
Global Reading	I have a purpose in mind when I read online.	2.75	1.26	Medium
	I participate in live chat with other learners of English.	1.86	.55	Low
	I participate in live chat with native speakers of English.	1.11	.31	Low
	I think about what I already know to help me understand what I read online.	3.55	1.14	High
	I first scroll through the online text to see what it is about before reading it.	3.66	.92	High
	I analyze whether the content of the online text fits my reading purpose.	2.92	1.05	Medium
	I review the online text first by noting its characteristics like length and organization.	3.17	1.16	Medium
	When reading online, I decide what to read closely and what to ignore	2.02	.92	Low
	When academic sites have links to other sites, I click on them to see what they are.	3.12	1.23	Medium
	I use tables, figures, and pictures in the online text to increase my understanding.	4.11	1.33	High
	I use context clues to help me better understand what I am reading online	3.54	1.16	High
	I use typographical features like boldface and italics to identify key information.	3.26	1.18	Medium
	I critically analyze and evaluate the information presented in the online text.	1.15	.36	Low
	I check my understanding when I come across new information.	2.22	1.05	Low
	I try to guess what the content of the online text is about when I read.	3.71	1.07	High
	I check to see if my guesses in the online text are right or wrong.	2.71	1.04	Medium

Categories	Strategies	Mean	SD	Level
	I scan the online text to get a basic idea of whether it will serve my purposes before choosing to read it.	2.23	1.08	Low
	I skip words or sections I find difficult or unfamiliar.	4.18	1.13	High

Table 1 reported that there were differences among the items in GLOB. The differences can be seen from mean, standard deviation, and level of frequency. Three levels of frequency, “high,” “medium,” and “low” level, were identified as indicators of how frequent the pre-service EFL teachers employed related strategies. The lowest level of GLOB was “I participate in live chat with native speakers of English” ($M = 1.11$, $SD = .13$). It pointed out that most of the pre-service EFL teachers did not take part in live chat with native speakers. Another lowest level of GLOB was “I critically analyze and evaluate the information presented in the online texts” ($M = 1.15$, $SD = .36$). Analyzing the contents and critically evaluating what was offered online was considered as a much more challenging action for the teachers since it required a deeper understanding and comprehension. The highest mean ($M = 4.18$, $SD = 1.13$) was “I skip words or sections I find difficult or unfamiliar.” This looked interesting because the pre-service teachers did not try to find out what was meant by the difficult word or part in an online content. The result of the strategy was contradicted with the item “I try to guess what the content of the online text is about when I read” ($M = 3.71$, $SD = 1.07$). Both strategies are related to each other. It is pointed out that one way of interpreting what content is about is by guessing any word or section attached in that online text. In line with that, the strategy “I use tables, figures, and pictures in the online text to increase my understanding” ($M = 4.11$, $SD = 1.33$) was another highest level of GLOB; meaning that the pre-service teachers mostly built their understanding towards the online text by using tables or figures.

Furthermore, several strategies were categorized as medium level. The strategy “I review the online text first by noting its characteristics like length and organization” ($M = 3.17$, $SD = 1.16$) revealed that the pre-service EFL teachers seemed more concerned with whether the online text was longer or well-organized. The use of typographical features in item “I use typographical features like boldface and italics to identify key information” ($M = 3.26$, $SD = 1.18$) was considered helpful for them in identifying the main idea of the online text. In short, GLOB used by the pre-service EFL teachers varied in term of frequency levels. Table 2 shows the statistical results of the second subscale, SOLV.

Table 2. Means, Standard Deviations, and Levels of Problem-solving strategies ($n = 65$)

Categories	Strategies	Mean	SD	Level
Problem-solving	I read slowly and carefully to make sure I understand what I am reading online.	2.89	1.32	Medium
	I try to get back on track when I lose concentration.	2.95	1.23	Medium
	I adjust my reading speed according to what I am reading online.	2.45	1.16	Medium
	When online text becomes difficult, I pay closer attention to what I am reading.	3.28	1.51	Medium

Categories	Strategies	Mean	SD	Level
	I stop from time to time and think about what I am reading online	3.52	1.27	High
	I try to picture or visualize information to help remember what I read online	2.71	1.33	Medium
	When online text becomes difficult, I reread it to increase my understanding.	2.91	1.41	Medium
	When I read online, I guess the meaning of unknown words or phrases.	2.92	1.25	Medium
	I critically evaluate the online text before choosing to use information I read online.	1.54	.61	Low
	I can distinguish between fact and opinion in the online text.	2.69	1.06	Medium
	When reading online, I look for sites that cover both sites of an issue.	2.11	1.45	Low

From Table 2, it can be surmised that the levels of frequency of SOLV among the pre-service EFL teachers varied similar to those of GLOB. However, there were only two strategies with low levels among the other nine strategies with medium and high levels. The lowest level, “I critically evaluate the online text before choosing to use information I read online” ($M = 1.54$, $SD = .61$) proved that the pre-service EFL teachers were unable to critically analyze the contents of online texts and decide whether to adapt the contents or not. This is in line with one of the strategies in GLOB which stated that the teachers were unable to analyze and evaluate the presented information critically.

The only high level was “I stop from time to time and think about what I am reading online” ($M = 3.52$, $SD = 1.27$). The pre-service EFL teachers tried to comprehend the contents of the online texts step by step. They analyzed each part of the texts accurately. It became a positive solution for online readers who read long texts containing difficult words or phrases. In line with that, the strategy “When online texts become difficult, I pay closer attention to what I am reading” ($M = 3.28$, $SD = 1.51$), which was at a medium level, revealed a solution for the online readers to keep focused on the goals of online reading. It was because the online texts can be longer, complicated, and unfamiliar. The strategy “I try to picture or visualize information to help remember what I read online” ($M = 2.71$, $SD = 1.33$) was at a medium level. What made it interesting was that more pre-service EFL teachers were able to conceptualize the content by visualizing it in their mind and recalling their background knowledge or schemata. The last subscale of OSORS is SS, which is grouped and described in Table 3.

Table 3. Means, Standard Deviations, and Levels of Support strategies ($n = 65$)

Categories	Strategies	Mean	SD	Level
Support strategies	I take notes while reading online to help me understand what I read.	3.26	1.40	Medium
	When online text becomes difficult, I read aloud to help me understand what I read.	2.51	1.18	Medium

Categories	Strategies	Mean	SD	Level
	I print out a hard copy of the online text then underline or circle information to help me remember it.	3.68	1.22	High
	I use reference materials (e.g. an online dictionary) to help me understand what I read online	1.71	.78	Low
	I paraphrase (restate ideas in my own words) to better understand what I read online	1.45	.50	Low
	I go back and forth in the online text to find relationship among ideas in it.	3.20	1.26	Medium
	I ask myself questions I like to have answered in the online text.	2.71	1.28	Medium
	When reading online, I translate English into my native language.	3.60	1.20	High
	When reading online, I think about information in both mother tongue and English.	2.35	1.23	Medium

Table 3 depicts various levels of frequency among the nine strategies of SUPP. The most frequent strategy used by the pre-service EFL teachers was “I print out a hard copy of the online text then underline or circle information to help me remember it” ($M = 3.68$, $SD = 1.22$). Utilizing printed texts was more familiar because every online reader was used to reading them before online text became commonplace. Combining both printed texts and online texts can be more effective to increase reader understanding. “When reading online, I translate English into my native language” ($M = 3.60$, $SD = 1.20$) was an effective strategy for most pre-service EFL teachers. This strategy allowed the online readers to comprehend information more easily as they used their native language. However, the lowest level of SUPP was “I paraphrase (restate ideas in my own words) to better understand what I read online” ($M = 1.45$, $SD = .50$). The pre-service EFL teachers were unable to construct new statements by reorganizing in their own words. Restating ideas or paraphrasing statements was considered as a complicated strategy for them. The statistical difference of the OSORS subscales can be seen in Table 4.

Table 4. Means, Standard Deviations, and Levels of subscales of OSORS

Strategies	N	Mean	SD	Level
Global reading strategies (GLOB)	65	2.84	.92	Medium
Problem-solving strategies (SOLV)	65	2.72	.54	Medium
Support strategies (SUPP)	65	2.71	.79	Medium

Having completed describing each strategy of each subscale of OSORS, the mean, standard deviation, and level of frequency of the subscales were compared (see Table 4). It can be seen that GLOB ($M = 2.84$, $SD = .92$) was at a medium level; SOLV ($M = 2.72$, $SD = .54$) was at a medium level; and SUPP ($M = 2.71$, $SD = .79$) was also at a medium level. However, even though all subscales were at the medium level, there was a slight difference among

them. GLOB has the highest mean (2.84) of all the subscales; meaning that GLOB was employed more frequently than SOLV or SUPP.

Pre-service EFL teachers' experiences in implementing metacognitive online strategies

The following interview result was the participants' responses towards the question "What kinds of strategies did you use during online reading?"

Focusing on simplified texts

Having analyzed the finding of each response, it can be pointed out that T1's strategy was selecting simple and shorter online texts. Such text was considered to have less difficult words, and because of which the text was easily comprehended by T1. The choice of length and organization of online texts may vary among online readers. Some prefer shorter texts; some prefer longer texts. T1's reasons were because longer texts were complicated and contained difficult words.

I always read some online texts which are shorter, simple and do not have more difficult words, because such words or terms really make me feel frustrated to keep reading the texts. So, when I surf and find a very long text by chance, I close it and switch to a simpler one. (T1)

Focusing on colorful texts

T2 preferred reading an online text which was full of color and has pictures along with it. This kind of text helped T1 visualize information in the mind which resulted in better understanding of the text.

Well, if it is about online reading strategies, I can say that I do like colorful texts. I like an online text if it has pictures in it. It is more effective for me to better understand the texts. It takes time to read plain text online. (T2)

Translating texts into Indonesian

The importance of meaning in reading online text was stated by T3 and T5. Both of them believed that online readers could not grasp the central ideas whenever the meaning of the words was not identified. An effective strategy to read texts online was by translating any difficult words or phrases to the reader's native language.

The language level provided on the Internet is high or difficult for us to easily understand the main point. What I usually do when I read online texts is look words up in a dictionary beside me. It might be impossible to finish reading texts without knowing the meaning. (T3)

Truly speaking, I prefer online texts in Indonesian than in English. If I am to read the English texts online, I need to translate the texts into Indonesian. (T5)

Reading for fun

T4's response showed that surfing online might be possible without any objective. The Internet offers a lot of information like news. An online reader can read the news by chance or just for fun. No specific strategy need be employed in such an action.

I do not have any specific strategy. I just surf on many websites and click on what I want to see. Sometimes I read news for fun. Sometimes, I have no objective before reading. (T4)

Utilizing schemata or previous knowledge

The use of schemata was an effective strategy used by T6. T6 used to combine what was presented in the online text and what had already been experienced.

We have to trace back to previous knowledge when we read online. Of course, it will be much more helpful when we associate the texts with our schemata. When we find new information without any schemata, we can surf other websites to find more sources. (T6)

Conclusion

This current study revealed metacognitive online reading strategies among pre-service EFL teachers in terms of the level of frequency. It reported that there were various strategies employed by the pre-service EFL teachers and some of the strategies were more dominant than others; as seen from its means, standard deviation, and level of frequency. A previous study reported that different readers performed different kinds and levels of strategies (Paris, Lipson, & Wixson, 1983). Better understanding is made by various metacognitive strategies (Mokhtari & Sheorey, 2001). It was not surprising that the online readers employed many kinds of strategies in reading online. The finding of the current study was therefore in line with previous studies which found that comprehending reading texts indulged good readers to use various strategies (Paris, Wasik, & Turner, 1991; Pressley & Afflerbach, 1995). From the subcategories, GLOB was the most dominant, followed by SOLV, and then SUPP; all of which had a medium level of frequency. However, this result differed from other studies which reported that SOLV was the most used subcategory (Jaengsaengthong, 2007; Pookcharoen, 2007; Zarrabi, 2015).

Furthermore, the result for the GLOB subcategory showed that several strategies had the highest means and levels. Ignoring difficult words or parts was at the highest level of all. Two related strategies, guessing the content and scrolling the text before reading, also had a high frequency. This study also found the lowest levels of frequency, of which analyzing and evaluating the information critically was one them. Schraw and Bruning (1999) stated that with critical analysis and evaluation towards a text, readers would not get the main points very easily. Various strategies in the SOLV subcategory were employed. Pausing the reading and thinking about the contents were the most frequent strategies employed by online readers. Thinking process is an important part of metacognitive strategies because it enables readers to effectively develop their language abilities and skills (Varshney & Banerji, 2012). The lowest frequency was evaluating information of texts critically. Most pre-service EFL teachers failed to analyze the texts and use the information. Avoiding critical evaluation results in bad understanding towards the texts (Guthrie & Wigfield, 1999). The highest level of frequency in SUPP subcategory was utilizing printed copies of the texts and highlighting needed information. Printed texts allow readers to systematically read them and scan every single sentence efficiently, even when it is a longer text (Ackerman & Goldsmith, 2011). Another problem faced was paraphrasing; which most failed to do. This finding was in line

with a previous study by Choy and Lee (2012), who concluded that it was not an easy task to learn paraphrasing.

As known, the qualitative data were collected in order to reveal the participants' experiences in employing metacognitive strategies when reading online. The results revealed that the strategies employed were focusing on simplified texts, focusing on colorful texts, translating texts into Indonesian, reading for fun, and utilizing schemata. A number of studies also reported that many kinds of metacognitive strategies were employed by online readers such as translating texts which resulted in good comprehension (Leonardi, 2010; Washbourne, 2012), referring to previous knowledge or schemata (Coiro & Doblers, 2007; Shih, 1992), and reading for entertainment purposes (Coiro, 2012).

To summarize, the current study found metacognitive online reading strategies employed by pre-service EFL teachers in terms of global, problem-solving, and support strategies. The most frequent strategies included guessing the contents (GLOB), scrolling through the texts (GLOB), associating schemata and current information (GLOB), using context clues (GLOB), using tables or pictures (GLOB), pausing and thinking about the contents (SOLV), using printed texts (SUPP), and translating the contents into Indonesian (SUPP). The least frequent strategies employed were participating in live chat with other learners or native speakers (GLOB), analyzing and evaluating information (GLOB), evaluating texts critically (SOLV), paraphrasing sentences (SUPP), and using reference materials (SUPP). Furthermore, it was found that the participants preferred to use strategies such as focusing on simplified texts, focusing on colorful texts, translating texts into Indonesian, reading for fun, and utilizing schemata. These results matched with the findings of the OSORS.

References

- Ajayi, T., Ekundayo, H., & Arogundade, B. B. (2009). Parents' involvement in school administration as a correlate of effectiveness of secondary schools in Nigeria. *Journal of Education Administration and Policy Studies*, 1(3), 41-46.
- Ackerman, R., & Goldsmith, M. (2011). Metacognitive regulation of text learning: On screen versus on paper. *Journal of Experimental Psychology: Applied*, 17(1), 18-32.
- Akyel, A., & Ercetin, G. (2009). Hypermedia reading strategies employed by advanced learners of English. *System*, 37(1), 136-152.
- Anastasiou, D., & Griva, E. (2009). Awareness of reading strategy use and reading comprehension among poor and good learners. *Elementary Education Online*, 8(2), 283-297.
- Anderson, N. J. (2003). Scrolling, clicking, and reading English: Online reading strategies in a second foreign language. *The Reading Matrix*, 3(3). Retrieved from <http://www.readingmatrix.com/articles/anderson/article.pdf>.
- Babbie, E. (2011). *The Basics of Social Research* (5th ed.). Wadsworth: Cengage Learning.
- Balajthy, E. (1990). Hypertext, hypermedia, and metacognition: Research and instructional implications for disabled readers. *Journal of Reading, Writing, and Learning Disabilities International*, 6(2), 183-202.
- Bernhardt, E. B. (1991). *Reading Development in a Second Language: Theoretical, Empirical, & Classroom Perspectives*. New Jersey: Ablex Publishing.

- Bolanos, E. (2012). A comparison of the reading strategies used by good readers in print and hypertext environments: implications and recommendations for the improvement of reading instructions. *TESOL Journal*, 7, 2-9.
- Bowden, C., & Galindo-Gonzalez, S. (2015). Interviewing when you're not face-to-face: The use of email interviews in a phenomenological study. *International Journal of Doctoral Studies*, 10, 79-92.
- Carrell, P., & Floyd, P. (1987). Effects on ESL reading of teaching cultural content schemata. *Language Learning*, 37(1), 89-108.
- Castek, J., Zawilinski, L., McVerry, J. G., O'Byrne, W. I., & Leuet, D. J. (2011). The new literacies of online reading comprehension: New opportunities and challenges for students with learning difficulties. In C. Wyatt-Smith, J. Elkins, & S. Gunn (Eds.), *Multiple perspectives on difficulties in learning literacy and numeracy* (pp. 91-110). New York, NY: Springer.
- Chen, K. T.-C., & Chen, S. C.-L. (2015). The Use of EFL Reading Strategies among High School Students in Taiwan. *The Reading Matrix*, 15(2), 156-166.
- Choy, S. C., & Lee, M. Y. (2012). Effects of Teaching Paraphrasing Skills to Students Learning Summary Writing in ESL. *Journal of Teaching and Learning*, 8(2), 77-89.
- Coiro, J. (2007). *Exploring Changes to Reading Comprehension on the Internet: Paradoxes and Possibilities for Diverse Adolescent Readers* (Unpublished Doctoral dissertation). University of Connecticut.
- Coiro, J. (2012). The new literacies of online reading comprehension: Future directions. *Educational Forum*, 76(4), 412-417.
- Coiro, J., & Dobler, E. (2007). Exploring the online reading comprehension strategies used by sixth-grade skilled readers to search for and locate information on the Internet. *Reading Research Quarterly*, 42(2), 214-257.
- Coiro, J., Knobel, M., Lankshear, C., & Leu, D. J. (2008). Central issues in new literacies and new literacies research. In J. Coiro, M. Knobel, C. Lankshear, & D. J. Leu (Eds.), *Handbook of research in new literacies* (pp. 1-21). Mahwah, NJ: Erlbaum.
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River, NJ: Merrill.
- Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches* (4th ed). California: Sage.
- Cummins, S., & Gerard, C. S. (2011). Teaching for Synthesis of Informational Texts With Read-Alouds. *The Reading Teacher*, 64(6), 394-405.
- Dreher, M. J. (1993). Reading to Locate Information: Societal and Educational Perspectives. *Contemporary Educational Psychology*, 18(2), 129-138.
- Duke, N. K., & Pearson, P. D. (2002). Effective practices for developing reading comprehension. In A. E. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction* (3rd ed., pp. 205-242). Newark, DE: International Reading Association.
- Fatemi, A. H., & Vahedi, V. S. (2014). The Effects of Top-down/Bottom-up Processing and Field-dependent/Field-independent Cognitive Style on Iranian EFL Learners' Reading Comprehension. *Theory and Practice in Language Studies*, 4(4), 686-693.
- Guthrie, J. T., & Wigfield, A. (1999). How motivation fits into a science of reading. *Scientific Studies of Reading*, 3(3), 199-205.

- Henry, L. A. (2006). Searching for an answer: the critical role of new literacies while reading on the Internet. *Reading Teachers*, 59(7), 614-627.
- Huang, H.-C., Chern, C.-L., & Lin, C.-C. (2009). EFL learners' use of online reading strategies and comprehension of texts: An exploratory study. *Computers & Education*, 52(1), 13-26.
- Huang, Y.-H. (2012). Designing task-oriented online reading activities: Taiwanese EFL students' experiences and views on online EFL reading activities. *Proceedings of First Extensive Reading World Congress* (pp. 4-7). Tokyo: Japan Association for Language Teaching.
- Hudson, T. (2007). *Teaching second language reading*. Oxford, England: Oxford University Press.
- Ikeda, M., & Takeuchi, O. (2006). Clarifying the differences in learning EFL reading strategies: An analysis of portfolios. *System*, 34(3), 384-398.
- Jaengsaengthong, W. (2007). *The study of online reading strategies of graduate students majoring in English at Naresuan University* (Unpublished Master's thesis). Naresuan University.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1(2), 112-133.
- Kingsley, T., & Tancock, S. (2014). Internet inquiry: Fundamental competencies for online comprehension. *The Reading Teacher*, 67(5), 389-399.
- Kurby, C. A., Britt, M. A., & Magliano, J. P. (2005). The role of top-down and bottom-up processes in between-text integration. *Reading Psychology*, 26(4-5), 335-362.
- Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the Craft of Qualitative Research Interviewing*. Los Angeles, California: Sage.
- Leonardi, V. (2010). *The role of pedagogical translation in second language acquisition: From theory to practice*. Bern, Switzerland: Peter Lang.
- Leu, D. J., Jr., Kinzer, C. K., Coiro, J. L., & Cammack, D. W. (2004). Toward a theory of new literacies emerging from Internet and other information and communication technologies. In R. B. Ruddell & N. Unrau (Eds.), *Theoretical models and process of reading* (5th ed., pp. 1570-1613). Newark, DE: International Reading Association.
- Leu, D. J., Kinzer, C. K., Coiro, J., Castek, J., & Henry, L. A. (2013). New literacies: A dual level theory of the changing nature of literacy, instruction, and assessment. In N. Unrau & D. Alvermann (Eds.), *Theoretical models and processes of reading* (6th ed., pp. 1150-1181). Newark, DE: International Reading Association.
- Leu, D. J., McVerry, J. G., O'Byrne, W. I., Kiili, C., Zawilinski, L., Everett-Cacopardo, ... Forzani, E. (2011). The New Literacies of Online Reading Comprehension: Expanding the Literacy and Learning Curriculum. *The Journal of Adolescent and Adult Literacy*, 55(1), 5-14.
- Lodico, M. G., Spaulding, D. T., & Voegtle, K. H. (2006). *Methods in Educational Research: From Theory to Practice*. San Francisco, CA: Jossey-Bass.
- Mistar, J., Zuhairi, A., & Yanti, N. (2016). Strategies in the teaching of reading comprehension for EFL learners in Indonesia. *English Language Teaching*, 9(2), 49-56.
- Mokhtari, K., & Sheorey, R. (2002). Measuring ESL students' awareness of reading strategies. *Journal of Developmental Education*, 25(3), 2-10.
- Mokhtari, K., & Sheorey, R. (2008). *Reading strategies of first- and second-language learners: See how they read*. Norwood, MA: Christopher-Gordon Publishers.

- Nuttall, C. (1996). *Teaching Reading Skills in a Foreign Language*. Oxford: Heinemann.
- Packer, M. (2011). *The science of qualitative research*. Cambridge: Cambridge University Press.
- Pang, J. (2008). Research on good and poor reader characteristics: Implications for L2 reading research in China. *Reading in a Foreign Language*, 20(1), 1-18.
- Paris, S. C., Lipson, M. Y., & Wixson, K. K. (1983). Becoming a strategic reader. *Contemporary Educational Psychology*, 8, 293-316.
- Paris, S., Wasik, B. A., & Turner, J. C. (1991). The development of strategic readers. In R. Barr, M. L. Kamil, P. B. Mosenthal, & D. Pearson (Eds.), *Handbook of Reading Research*, Vol. 2 (pp. 609-640). Mahwah, NJ: Lawrence Erlbaum.
- Pole, C., & Morrison, M. (2003). *Ethnography for education*. London: Open University Press.
- Pookcharoen, S. (2007). Exploring how teaching morphemic analysis fosters Thai EFL students' vocabulary development. *Journal of English Studies*, 3, 85-105.
- Pressley, M., & Afflerbach, P. (1995). *Verbal protocols of reading: The nature of constructively responsive reading*. Hillsdale, NJ: Lawrence Erlbaum.
- Pressley, M., & McCormick, C. B. (1995). *Cognition, Teaching, and Assessment*. New York, NY: Harper Collins.
- Raftari, S., Seyyedi, K., & Ismail, S. A. M. M. (2012). Reading strategy research around the world. *International Journal of Humanities and Social Science Invention*, 1(1), 24-30.
- Schraw, G., & Bruning, R. (1999). How implicit models of reading affect motivation to read and reading engagement. *Scientific Studies of Reading*, 3(3), 281-302.
- Sheorey, R., & Mokhtari, K. (2001). Differences in the global awareness of reading strategies among native and non-native readers. *System*, 29(4), 431-449.
- Shih, M. (1992). Beyond comprehension exercises in the ESL academic reading class. *TESOL Quarterly*, 26(2), 289-318.
- Singhal, M. (2001). Reading proficiency, reading strategies, metacognitive awareness and L2 readers. *The Reading Matrix*, 1(1), 1-23.
- Tanner, M. J. (2014). Digital vs. Print: Reading Comprehension and the Future of the Book. *SLIS Student Research Journal*, 4(2).
- Varshney, S., & Banerji, N. (2012). Language learning strategies for English (second language) teachers. *Language in India*, 12(2), 791-799.
- Washbourne, K. (2012). Active, strategic reading for translation trainees: Foundations for transactional methods. *Translation & Interpreting*, 4(1), 38-55.
- Zarrabi, S. (2015). *Exploring Metacognitive Online Reading Strategies of Non-Native English-Speaking Translation Students* (Unpublished Doctoral dissertation). University of San Francisco.