

Online Metacognitive Reading Strategies Use by Postgraduate Libyan EFL Students

Najwa Alsayed Omar

Abstract—With the increasing popularity of the Internet, online reading has become an essential source for EFL readers. Using strategies to comprehend information on online reading texts play a crucial role in students' academic success. Metacognitive reading strategies are effective factors that enhance EFL learners reading comprehension. This study aimed at exploring the use of online metacognitive reading strategies by postgraduate Libyan EFL students. Quantitative data was collected using the Survey of Online Reading Strategies (OSORS). The findings revealed that the participants were moderate users of metacognitive online reading strategies. Problem solving strategies were the most frequently reported used strategies, while support reading strategies were the least. The five most and least frequently reported strategies were identified. Based on the findings, some future research recommendations were presented.

Keywords—Metacognitive strategies, Online reading, Online reading strategies, Postgraduate students.

I. INTRODUCTION

READING is the most important skill EFL learners have to master, more so for postgraduate students who have to read different texts for their research. Reading process requires understanding not only the surface meaning but also the implied meaning of a text. Tierney and Readence [1] stated that "learning to read is not [only] learning to recognize words; it is [also] learning to make sense of texts". Thus, the ultimate goal of reading comprehension is meaning construction of written texts. With the development of the Internet, online reading has become an issue for discussion in the educational field and more specifically in the field of English as a second or foreign language. The integration of computer technology brought about a new literacy which involved the use of "the skills, strategies and insight" [2] that ensured successful use of technology. In internet learning environment, electronic texts were provided with new supports which at the same time challenged learners' ability to understand what they read [3]. Hence, to achieve a better understanding of online texts, [4] indicated that using different strategies other than those used in offline reading texts is essential. In the same vain, [5] pointed out that "reading online requires separate skills and strategies which are necessary for successful reading online". Oxford [6] defined learning strategies as specific actions effective in making learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations. Language

learning strategies had been classified by researchers into different categories: cognitive strategies, metacognitive strategies, memory strategies, compensatory strategies, affective strategies, and social strategies [6]-[8]. However, researchers claimed that metacognitive strategies have the most significant role in language learning. Auerbach and Paxton [9] defined metacognition as "knowledge of strategies for processing texts, the ability to monitor comprehension, and the ability to adjust strategies as needed". O'Malley and Chamot [8] emphasized that "students without metacognitive approaches are essentially learners without directions or opportunity to plan their learning, monitor their progress or review their accomplishment and future learning direction". Similarly, [10] indicated to the importance of metacognitive strategies for regulating and directing language learning.

In the late 1970, more attention was given to reading strategies that were established to have a significant effect on reading comprehension [11]. Reading strategies are "plans for solving problems encountered in constructing meaning" [12] to enhance reading comprehension as well as "motivate readers to read more and understand better the written message/messages" [13]. Anderson [14] divided metacognition into five interacted elements: (1) preparing and planning for effective reading, (2) deciding when to use particular reading strategies, (3) knowing how to monitor reading strategy use, (4) learning how to orchestrate various reading strategies, and (5) evaluating reading strategy use. In addition, previous studies [15], [16] categorized metacognitive reading strategies into: (1) global strategies which are planned carefully and intentionally to monitor learners' reading as taking over view of the text before reading, (2) problem solving strategies that involve employing strategies while reading for overcoming comprehension difficulties, such as reading slowly and carefully, and (3) support strategies that are used to aid comprehension as taking notes Based on that classification, different studies were conducted on EFL learners' use of metacognitive reading strategies on online texts environment.

II. PREVIOUS STUDIES

A comparative study between EFL and ESL learners' use of met-cognitive online reading strategies was conducted by [14]. The author adapted [15] the Survey of Reading Strategies (SORS) to create the Online Survey of Reading Strategies (OSORS). Based on quantitative results, the only difference between the two groups was on the use of problem solving strategies; EFL learners reported higher use of problem solving strategies than ESL learners.

Najwa Alsayed Omar is with Department of English, Azawiya University, Libya (e-mail: Najwa_alsayed@yahoo.com)

Huang et al. [17] created a web-based reading program to explore EFL university Taiwan students' use of online metacognitive strategies. The participants were required to read four articles with the use of four categories of strategies: global strategy, problem-solving strategy support strategy and socio-affective strategy. The findings revealed that the support strategies were the most frequently used strategies, while problem-solving strategies were the last used strategies.

In Arab university context, [18] compared the use of metacognitive reading strategies by first and fourth year university Omani students. The Online Survey of Reading Strategies (OSORS) by [14] was adopted. The finding suggested that the participants in both levels were moderate users of online reading strategies. However, fourth year students reported the use of global strategies significantly higher than first year students. The top ten reported used strategies by fourth year students were global strategies, while first year students' reported mixed use of the top ten online reading strategies.

Inceay [5] investigated the use of metacognitive online reading strategies by EFL Turkish University students by means of online survey of reading strategies (OSROS) and think aloud protocol. The findings revealed that Turkish students employed most frequently global reading strategies. The problem solving strategies were second in rank, while support strategies were the least in use. In addition, the findings of the think aloud protocol supported the questionnaire result in which four actual used strategies were reported to be highly used. The five most frequent used strategies were related to the support strategy of using reference materials, global strategies of scrolling through text and guessing the content of a text and two problem strategies of reading for better understanding and paying attention to a text. Most of the five least used strategies were support strategies with only one problem solving strategy.

An investigation of MA Iranian students' use of metacognitive online reading strategies was conducted by [19]. The results obtained from OSORS questionnaire revealed that MA Iranian students were medium users of reading strategies when reading online texts. The highest reported category of strategies was problem solving strategies. The most frequently used strategies were having purpose in mind when reading and paying closer attention to reading. However, the least frequently used strategies were taking notes and reading aloud. Those most and least used strategies were also reported on [20] who investigated the use of online metacognitive strategies by MA and PhD Iranian students.

While a good number of studies have been conducted to examine online metacognitive reading strategies among EFL undergraduate students, very little is known about the use of those strategies by EFL postgraduate learners, particularly by EFL Arab postgraduate students. Accordingly, this study aims to answer the following questions:

Q1. What are the most and least frequently utilized categories of online metacognitive reading strategies by postgraduate Libyan EFL students?

Q2. To what extent do postgraduate Libyan students report the use of online metacognitive reading strategies?

III. METHOD

A. Participants

The population of this study involved postgraduate Libyan EFL students at Libyan Academy of Postgraduate Studies. They were thirty students; 8 male and 22 female. They were full time students and their program of study was MA.

B. Instruments

The study adopted [14] Survey of Online Reading Strategies (OSORS). The survey includes 38 items: global reading strategies (18 items), problem solving strategies (11 items) and support strategies (9 items). The overall reliability of OSORS was 0.92, and the reliabilities for each category were: Global Reading Strategies, 0.77, Problem Solving Strategies, 0.64, and Support Strategies, 0.69 as assessed by [14].

IV. DATA ANALYSIS

The quantitative data obtained from OSORS questionnaire was analyzed by statistical package for social sciences (SPSS). Descriptive analyses including mean (M) and the standard deviation (SD) were provided to find out the average scores and frequency distributions of the participants' use of online metacognitive reading strategies. The frequency of strategy use was scored on a five point Likert scale (1 for never, 2 for only occasionally, 3 for sometimes, 4 for usually and 5 for always) in which scores of 2.4 or below demonstrated low strategy use, 2.5 to 3.4 showed moderate strategy use, and 3.5 or above suggested high strategy use [14].

V. RESULT

Q1. What are the most and least frequently utilized categories of online metacognitive reading strategies by postgraduate Libyan EFL students?

As displayed in Table I, the overall use of online metacognitive reading strategies was moderate. That means postgraduate Libyan students were relatively aware of online metacognitive reading strategies. Regarding the use of the three types of strategies, problem solving strategies (M= 3.7) were reported to be the most frequently used strategies. It seems that the participants are fully aware of using such type of strategies. The second reported using strategies were global reading strategies (M=3.4), while support reading strategies (M=3.2) were the least in use.

TABLE I
FREQUENCY OF STRATEGY USE IN CATEGORIES

Strategy	Mean	SD	FrequencyLevel
Global Reading Strategies	3.4	1.5	Moderate
Problem Solving Strategies	3.7	1.6	High
Support Reading Strategies	3.2	1.4	Moderate
Over all use	3.4	1.52	Moderate

Q2. To what extent do postgraduate Libyan students report the use of online metacognitive reading strategies?

The overall description of the frequency use of thirty-eight online metacognitive reading strategies included in the questionnaire indicated that the participants were sophisticated users of using those strategies. There were twenty four strategies with a mean score of 3.5 and above; two strategies had a mean score of 3.5 and twenty two obtained a mean score of above 3.5. The rest of the strategies received a mean score below 3.5 which were all reported at medium rates. Interestingly, the participants reported no low use of any of the strategies. To answer research question 2, the following subsections provides the use of the five most and least used strategies.

A. The Most Reported Use Online Metacognitive Reading Strategies

The data in Table II revealed that all the top five strategies were of high frequency level where four of them were problem solving strategies and only one global strategy.

TABLE II
THE TOP FIVE ONLINE READING STRATEGIES

Rank	Strategy	Mean	S.D	Frequency level
1	Guessing the meaning of unknown words or phrases (PSS).	4.2	2.14	High
2	Visualizing information (PSS).	4.03	1.80	High
3	Paying closer attention when reading (PSS).	4.0	10.99	High
4	Rereading it to increase understanding (PSS).	3.93	1.64	High
5	I take an overall view to see what it is about before reading it (GRS).	3.9	1.71	High

PSS= Problem Solving Strategies / GRS= Global Reading Strategies

B. The Least Reported Use Online Metacognitive Reading Strategies

The results yielded from Table III showed that all the top five least frequent reported strategies were of moderate use. Three of those strategies were global reading strategies: chatting with native speakers, reviewing the length and organization of a text and analyzing and evaluating. The other two less frequently strategies were concerned with support reading strategies: taking note and reading aloud.

TABLE III
THE BOTTOM FIVE ONLINE READING STRATEGIES

Rank	Strategy	Mean	S.D	Frequency level
1	Taking notes (SRS).	2.5	1.58	Moderate
2	Participating in live chat with native speakers of English (GRS).	2.56	1.54	Moderate
3	Reading aloud (SRS).	2.63	1.54	Moderate
4	Reviewing the online text first by noting its characteristics like length and organization (GRS).	2.66	1.98	Moderate
5	Critically analyzing and evaluating the information presented in the online text (GRS).	2.7	0.98	Moderate

GRS= Global Reading Strategies/ SRS= Support Reading Strategies

VI. DISCUSSION

A. Online Reading Strategies Categorize

This study aimed to explore the use of metacognitive strategies postgraduate Libyan students reported using when reading online academic texts. The result revealed that postgraduate Libyan students were moderate users of metacognitive online reading strategies. This result was consistent with [19] findings which proved the moderate use of online metacognitive reading strategies by MA Iranian students. Contrary to [17] study where undergraduate used support strategies most frequently and problem solving strategies least frequently, the result of this study revealed that that postgraduate students used problem solving strategies most frequently and support strategies least frequently. That result was confirmed in [19] study among MA Iranian students. The effort and the time needed for using support strategies as paraphrasing and using dictionary might explain the participants' less use of support strategies.

B. The Most and Least Used Reported Strategies

The participants reported a wide variety of using metacognitive online reading strategies and none of the strategies reported being used at a low mean. That indicates to the relatively awareness postgraduate Libyan students have on using metacognitive strategies when reading online academic texts. As for the most frequently reported strategies, it was clear that one of the most problems hindered the participants understanding of online texts was their limited repertoire of vocabulary. Thus, they reported high use of the problem solving strategies of guessing the meaning of the difficult words by using contexts clues. This strategy was also frequently used by Iranian postgraduate students in [20] study. The data in this study revealed two other most frequently used strategies related also to problem solving strategies of paying closer attention when reading a text and re-reading it to enhance comprehension. This finding was in agreement with [19], [5] findings which showed that the two strategies reported being used most frequently among postgraduate students and undergraduate students.

Regarding the least frequently used strategies, the global strategy of chatting with native speakers was one of the least reported used strategies. That could be accounted for limited opportunities the participants have to interact with native speakers or their research work do not require them to have live chat with native speakers. Furthermore, it was evident that postgraduate Libyan did not prefer using two other global strategies. The strategy of noting the online text's length and organization and evaluating and analyzing the information in the texts were among the least frequently used strategies, though the participants should use them much more frequently as they help in deciding what to read and what to ignore. The result also revealed that the support strategies of taking notes and reading aloud were less frequently reported used strategies. The less frequently use of those strategies were supported by [19], [20] who proved that taking notes and reading aloud were least frequently used strategy among postgraduate students. The participants either found the use of

the support strategy of taking notes as time consuming or they might be not completely aware of using it. In addition, they might feel 'awkward' when reading aloud, to adopt [19] term.

VII. CONCLUSION

This study provides some useful insights into EFL postgraduates' use of online reading strategies, however it has some limitations. First, the participants in this study were recruited on only 30 postgraduate Libyan students, so it is recommended that further research should be conducted with larger population for result to be generalized. Second, the instruments used to find out the participants' use of online metacognitive reading strategies were a questionnaire. Thus, more research instruments are recommended to be used as using think a loud protocol to confirm the result obtained from the questionnaire and to generate a comprehensive view of the use of strategies when postgraduate Libyan EFL students involve in actual reading online texts. Finally, the current study did not explore how the use of metacognitive reading strategies has a significant effect on EFL postgraduate students' reading comprehension. Accordingly, an experimental study should be conducted to find out the relationship between using metacognitive strategies when reading online English academic texts and reading comprehension.

REFERENCES

- [1] R. J. Tierney, and, J. E. Readence, *Reading strategies and practices: A compendium* (6th ed.). Boston: Allyn & Bacon, 2005.
- [2] D. J. Leu, *The new literacies: Research on reading instruction with the Internet*. In A. E. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction* (3rd ed.) (pp. 310-336). Newark: (pp. 310-336). Newark: DE: International Reading Association, 2002.
- [3] J. Coiro, "Reading comprehension on the Internet: Expanding our understanding of reading comprehension to encompass new literacies". *The Reading Teacher*, vol. 56, pp.458-464, 2003.
- [4] Akyel, and G. Erçetin, "Hypermedia Reading Strategies Employed by Advanced Learners of English". *System*, vol.37, pp.136-152, 2009.
- [5] G. İnceçay, "Metacognitive online reading strategies applied by EFL students". *Journal of Theory and Practice in Education*, vol.9, pp. 390-407, 2013.
- [6] R. L. Oxford, *Language learning strategies: What every teacher should know*. New York: Newbury House Publishers, 1990.
- [7] J. Rubin, "Study of cognitive processes in second language learning". *Applied Linguistics*, vol. 11, pp.118-131, 1981.
- [8] J. M. O'Malley, and A. U. Chamot, *Learning strategies in second language acquisition*. New York: Cambridge University Press, 1990.
- [9] E. Auerbach, and D. Paxton, "It's not the E English thing": Bringing reading research into the ESL classroom. *TESOL Quarterly*, vol.31, pp.237-261, 1997.
- [10] L. Vandergrift, "It was nice to see that our predictions were right: Developing metacognition in L2 listening comprehension". *The Canadian Modern Language Review*, vol. 58, pp. 555-575, 2002.
- [11] E. Bernhardt, "Progress and procrastination in second language reading". *Annual Review of Applied Linguistics*, vol. 25, pp. 133-150, 2005.
- [12] S. Ketabi, N. Ghavammia, and M. Rezazadeh, "Hypermedia reading strategies used by Persian graduate students in TEFL: a think-aloud study". *The Reading Matrix*, vol. 12. pp. 39-49, 2012.
- [13] M. R. Ahmadi, H. N. Ismail, and M. K. K. Abdullah, "The Importance of Metacognitive Reading Strategy Awareness in Reading Comprehension". *English Language Teaching*, vol. 6 pp. 235-244, 2013
- [14] N. J. Anderson, "Scrolling, clicking, and reading English: Online reading strategies in a second/foreign language". *The Reading Matrix*, vol. 3, pp.1-33, 2003
- [15] R. Sheorey, and K. Mokhtari, "Differences in the metacognitive awareness of reading strategies among native and non-native readers". *System*, vol. 29, pp. 431-449, 2001.
- [16] K. Mokhtari, and, C. Reichard, "Assessing students' metacognitive awareness of reading strategies". *Journal of Educational Psychology*, vol. 94, pp. 249-259, 2002
- [17] H. C. Huang, C.L. Chern, and C.C. Lin, "EFL learners' use of online reading strategies and comprehension of texts: An exploratory study". *Computers and Education*, vol. 52, pp. 13-26, 2009
- [18] A. Aly, A., Thuwayba, and A. Mahmoud, (2010). Student teachers' perceived use of online reading strategies. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, vol. 6, pp. 102-113, 2010
- [19] S. Taki, and G. H. Soleimani, "Online Reading Strategy Use and Gender Differences: The Case of Iranian EFL Learners". *Mediterranean Journal of Social Sciences*, vol. 3 pp. 173-184, 2012.
- [20] M. Mesgar, N. Abu Bakar, and Z. Amir, "Online metacognitive reading strategies used by postgraduate ESL readers of academic texts". *International Journal of Asian Social Science*, vol. 2, pp. 1779-179, 2012.

Najwa Alsayed is a lecturer at A Zawiya University. She holds a MA in applied linguistics from University Kebangsaan Malaysia, 2011. She is interested in TESOL pedagogy and e-learning.