ONLINE METACOGNITIVE READING STRATEGIES USE BY LIBYAN SECONDARY SCHOOL STUDENTS

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Abstract

Using internet is popular among students in Libya at different levels these days, one of the purpose of using internet is online reading, it plays important roles for EFL readers. Specifically, Libyan students are using different online strategies to understand online reading texts. This study, specifically, aimed to identify the online metacognitive reading strategies used by EFL secondary students in Sirt- Libya and to investigate the relationship between metacognitive online reading strategies and gender among secondary school students in Sirt- Libya. This study involved 100 secondary school students in Sirt. This study, which is quantitative in nature, is based on an Online Survey of Reading Strategies (OSORS) questionnaire by (Anderson, 2003) and which serves as the research instrument. The findings showed that the sampling were moderate users of metacognitive online reading strategies. Problem solving strategies were the highest frequently used strategies, while global strategies were the least. male students were higher than female students used strategies. Based on the findings, some future research recommendations were presented.

Keywords—Metacognitive strategies, Online reading, Online reading strategies, secondary school students.

Introduction

Reading is one of the main skills in learning a language. According to Rumelhart (1980) and Birch (2007), reading skills are interactive processes that take place when readers go through the text and try to comprehend it. Readers usually apply several strategies, for example skimming, adjusting pace, reading, predicting, drawing conclusions and using prior knowledge, to understand the text and the subject matters of the texts while reader is reading it. AlNujaidi .(2003) defined reading strategies as "learning techniques, behaviours, problem-solving or study skills which make learning more effective and efficient". Many scholars stated that skilled readers apply more cognitive awareness and cognitive strategies compared to less skilled readers (Diane, 2009). According to O'Malley, Chamot, Stewner-Mazanares, Russo, and Kupper (1985, p.506), meta cognitive strategies in reading are defined as :"metacognitive strategies involve thinking about the learning process, planning for learning, monitoring of comprehension or production while it is taking place, and self-evaluation of learning after the language activity is completed".

Metacognitive reading strategy can be one of the six reading strategies Sheorey & Mokhtari (2001). Hence, metacognitive strategies were considered to be behaviours that were undertaken by the learners to plan, arrange, and assess their own learning (Oxford, 1990). The strategies consisted of a directed attention and self-assessment, organization, setting goals and objectives, and seeking opportunities for practice, for example self-monitoring and self-correction of errors are high cognitive strategies that readers could apply in reading context. In addition, Brown (1980) stated the importance of metacognitive strategies in reading comprehension. He outlined the following examples for readers to follow: (a) the purposes of reading should be clear; (b) highlighting the significant aspects of a message; (c) monitoring the ability of drawing comprehension of the text (d) self-monitoring by (self-questioning) to find out if goals were being achieved or not; and (e) taking speed and corrective action when readers failed to comprehension properly.

Many students use a variety of strategies. Metacognitive reading strategy is one of these strategies that deal with human thinking. In the study by Kuhn (2000), Abedi (1996), Veenman (1993) and Flavell (1979), two aspects were discussed, firstly the students' self-awareness of a knowledge base in which information is stored about how, when, and where to use various cognitive strategies and secondly, their self-awareness of and access to strategies that facilitate direct learning, for instance monitoring difficulty level and a feeling of knowing. This consciousness is developmental and lies on a continuum. Proficient readers use one or more metacognitive strategies to comprehend texts. During reading, metacognitive processing is expressed through strategies, which are "procedural, purposeful, effortful, wilfully essential, and facilitative in nature", also, "the reader must purposefully or intentionally or wilfully invoke strategies" (Alexander &Jetton 2000,p: 295).

The use of metacognitive strategy with print and online academic text has advantages and disadvantage with English as foreign language (EFL) students. Nevertheless, it depends on the students' ability and how he or she understands the text and uses this strategy. Abdul Rahim et al. (2010) stated metacognitive awareness strategies that can help readers (global reading strategy, problem solving strategy, and support reading strategy). According to Sheorey and Mokhtari (2001, p: 433), the readers' "metacognitive knowledge about reading includes an awareness of a variety of reading strategies and that the cognitive enterprise of reading is influenced by this metacognitive awareness of reading strategies". These three strategies are used by readers to solve reading problems such disability of code the knowledge while reading. The most used problem solving strategies which readers use is re-reading strategy to improve their understanding of the text.

The Arab learners faced difficulties to comprehend reading materials as well as the lack of use the metacognitive reading strategy and do not use their background knowledge(Wafa, 2002). Therefore, the Arab EFL learners need to increase their metacognitive awareness of specific reading strategies that it is necessary for proficient reading in different levels of study (Alireza, 2010).

Al-Nujaidi (2003) explored the reading online strategies of EFL learners in undergraduates in Saudi Arabia University and the relationship between reading comprehension and reading strategy. The study revealed Arab (EFL) learners' experience of utilizing reading strategies, knowledge about using reading strategies and sufficient exposure to strategies were the significant factors connected to the participants' attitude towards reading comprehension ability.

The limited number of studies on metacognitive online reading strategies and EFL learners, specifically the Libyan learners, has led to the present study. This study focuses on metacognitive online strategies among Libyan secondary school students in Sirt-Libya. This study attempts to fill the gap in literature by conducting a study on Libyan secondary school students in order to investigate their online metacognitive reading strategies (problem solving strategies, global strategies or support strategies) used by them. The relationship among the metacognitive online reading strategies, gender, were investigated.

PREVIOUS STUDIES

Reading strategies play significant role on enhancing student's capability to read. As mentioned by Chamot, & Keatley, C. W. (1998) a successful reader is the one who can employ good reading strategies and know how to use it effectively (Al-Nujaidi, 2003) describes the importance of use reading strategies among weak readers. The writer indicates the goal of using reading strategies to foster the student's reading and understanding of the text.

Online reading strategy is one of the four important skills because "reading is assumed to be the central means for learning new information" (Hui 2011:279). The internet and computer have become an important aspect to develop and enhance students around the world according to the globalization needs. Furthermore, online reading strategies are the techniques that the reader uses to interact with all online material. Coiro (2003) reveals that electronic online texts set up new supports in addition to new challenges that can have a great influence on an individual's ability to comprehend what he or she reads. Online reading, then, serves as the reading source for learners. However, some learners tend to read print text, but according to the development of the internet and the facilities provided to the student it seems that online material can help students. Hsin et. al (2009:1) stated that "With increasing globalization and the rise of the World Wide Web, online reading has become a major source of input for L2 readers."

For increasing the L2 reading intelligibility, L2 should employ some reading strategies for online text. In terms of using metacognitive reading strategies Macaro, E. (2001) stated that it may be most useful from navigational aspect of hypertext and focuses on the "broader dispositions and foundational metacognitive skills that people bring to reading and learning in hypertext in order to really recognize the particulars of reading in this environment. There are three categories for metacognitive online reading strategies:

General strategies as stated by (Block, 1986; Block, 1992) or **global strategies** as stated by (Sheorey & Mokhtari, 2001) referred to intentional and carefully planned strategies by learners to monitor their reading with a purpose in mind, previewing the text, checking how text content fits its purpose, noting text characteristics like length and organization, and predicting or guessing the text meaning.

Bottom up strategies which refers to strategies that the readers use to understand specific linguistic unite; are called local strategies (Block, 1986; Block, 1992) or **problem solving strategies** (Sheorey & Mokhtari, 2001). These are the actions that readers employ while they are working directly with the text, especially when the text becomes difficult. These strategies include guessing the meaning from unknown words, adjusting one's reading rate, visualizing the information read, resolving conflicting information, and rereading the text to improve comprehension

Support strategies which refers to the methods readers use to help their comprehension, such as using a dictionary, taking notes, highlighting textual information, or translating from one's mother tongue to the target language (Sheorey & Mokhtari, 2001).

The three reading strategies that students use when reading online material are global, problem solving and support strategies. In global strategies the student plans to monitor the reading, for example by previewing the text. The student has a purpose in his mind when he reads and predicts or guesses the text (Mokhtari & Sheorey 2002). In addition, they had an overview idea about the online text. The second strategy is problem solving strategies. These are the processes the reader use when he directly deals with the text. The third strategy is support strategy the reader uses this strategy to help him understand and comprehend the reading text (Mokhtari & Sheorey 2002).

META COGNITIVE ONLINE READING STRATEGIES AND GENDER

Little is known about relationship between metacognitive online reading strategies and gender. According to Phakiti (2003), there have been few studies about gender and reading strategies. However, he conducted a study on this area and found out that there was no significant difference in using a particular strategy for either males or females. Similarly, Sheorey and Mokhtari (2001) examined the metacognitive, cognitive, and support strategies of second language readers. Their findings showed that no significant overall differences between males and females.

On the other hand, Janzen, J. (2001). conducted a study about the reading strategies used for both English and Spanish and they found that there was a significant difference between females and males. Hence, males used more strategies than females. Similarly, Griva, (2009), found that gender differences could affect of selections of EFL reading strategies. Their findings showed that female students exhibited more extensive use of cognitive and metacognitive strategies than males.

According to many researchers like Mohmoud. (2006), Sheorey (1999) males and females use different strategies in reading comprehension. They claimed that males and females might use the similar number of reading online strategies; however they reported that females were more skilful at using these strategies than males.

REASERCH QUESTIONS

- 1. What are the online metacognitive reading strategies used by EFL Libyan secondary school students?
- 2. Is there a significant difference in metacognitive online reading strategies reported by EFL learners of different gender?

REASERCH METHOD

PARTICIPANTS

The population of this study involved Libyan secondary school students at Sirt-Libya. They were 100 students; 50 male and 50 female.

INSTRUMENT

This study used an Online Survey of Reading Strategies (OSORS) questionnaire by (Anderson, 2003). This questionnaire measured metacognitive strategies within academic

context of reading. It consists of 38 items. The three categories of metacognitive reading strategies were maintained: global reading strategies (18 items), problem solving strategies (11 items), and support strategies (9 items). A total number of items in this questionnaire were 38.In relation to the grading scale, Likert 5–point Scale, a scale that is commonly adopted to measure the strength of an attitude or an opinion was used. The numbers in a Likert scale are the indicators of opinion strength. '1' means that 'I never or almost never do this' when I read online. '2' means that 'I do this only occasionally' when I read online. '3' means that 'I sometimes do this' when I read online (about 50% of the time). '4' means that 'I usually do this' when I read online. '5' means that 'I always or almost always do this' when I read online.

DATA ANALYSIS

The SPSS (Statistical Package for Social Sciences, version 20) was used to provide statistical information about the EFL Libyan secondary school students' use of Metacognitive Online Reading Strategies and its relationship with gender. T- test was utilized to answered the research questions.

RESULT

1. What are the online metacognitive reading strategies used by EFL Libyan secondary school students?

Metacognitive Online Reading Strategies of Libyan secondary students

		Frequency	Percent	Valid Percent
Valid	problem solving strategies	58	52.7	58.0
	Global strategies	20	28.3	20.0
	support strategies	22	29.0	22.0
	Total	100	100.0	100.0

Table 1

As can be seen from the above table, a majority of the surveyed respondents (58%) showed a high level of using problem solving strategies. Moreover (22%) of respondents reported support strategies were used. Whereas only a minority of them (20%) claimed they only used Global strategies. These are the frequencies of usage of different metacognitive strategies to understand the reading texts. It was clear that majority of the students (58%) used problem solving strategies most when reading online. The least used strategies were global strategies with only 20% of students using these strategies.

GENDER DIFFERENCES IN THE USAGE METACOGNITIVE ONLINE READING STRATEGIES

This section presents the results of analysis in answer to the second research question.

Q2. Is there a significant difference in metacognitive online reading strategies reported by EFL learners of different gender?

To obtain the answer to the second research question, an independent sample t-test was employed in order to investigate whether there is a significant difference between male and female Libyan secondary school students in terms of using metacognitive online reading strategies. The results are summarized in tables.

Gender Differences in Metacognitive Online Reading Strategies (1)

	Gender	Mean	Std. Deviation
Online metacognitive reading strategies used by EFL Libyan learners	Male	1.9000	.97416
learners	Female	1.3800	.53031

Table2

Gender Differences in Metacognitive Online Reading Strategies (2)

Level's Test for Equality of Variances

						Sig.(2-	Interv	onfidence val of the ference
		F	Sig.	T	Df	tailed)	Lower	Upper
online metacognitive reading strategies	Equal variances assumed	106.5	.000	3.315	98	.001	.2087	.83128
used by EFL Libyan learners	Equal variances not assumed			3.315	75.69	.001	.2075	.83243

Table3

According to the findings presented in tables 2 and 3, overall male students (M = 1.9000, SD = 0.97416) scored higher than females (M = 1.38, SD = 0.530). Based on the results of independent samples t-test, t(75.69) = 3.315, p = .001) there was a sufficient evidence to reject the null hypothesis since the significant value (p = .001) was smaller than alpha at .05 level of significance. It can be concluded that there is significant difference between female and male students in using metacognitive online reading strategies.

DISCUSSION BASED ON RESEARCH QUESTIONS RESEARCH OUESTION 1

Q1: What are the metacognitive online reading strategies used by EFL Libyan learners? A majority of the surveyed respondents showed a high level usage of problem solving strategies. Moreover, 22% of the respondents reported using support strategies, whereas only a minority of them claimed they only used global strategies. The findings from this study were supported by findings in other researches namely ESL or EFL context. Coiro (2003) discovered that students are usually aware of the importance of metacognitive online reading strategies because the strategies helped them to understand what they read especially for academic purposes and they most frequency used problem solving strategies to synthesize and evaluate the materials they are reading. Similarly Anderson (2002) conducted a study of ESL learners and he found that the highest used strategies among three strategies were Problem Solving Strategies. It is the most frequency usage among ESL learners. In EFL context, S. Taki, and G. H. Soleimani, (2012) conducted a study on postgraduate of a

local university and the results showed that the EFL learners utilized problem solving strategies the most in reading which they applied to their online reading strategies as well. Although ESL and EFL learners employ different online reading strategies, the problem solving strategies were reported to have the highest usage frequency in comparison to other online reading strategies.

RESEARCH QUESTION 2

Q2: Is there a significant difference in metacognitive online reading strategies reported by EFL Libyan learners of different gender?

This study found out that there is a significant difference between female and male students in using metacognitive online reading strategies. Overall, male students are more frequent users of the three online reading stratgies compared to female students. This result is diffrent to pervious studies conducted in different contexts like Griva, 2009). They found that there was significant difference between gender in relation to selections of EFL reading strategies used. Their finding showed that female students more extensively used cognitive and metacognitive strategies than males which supported this study's results.

RECOMMENDATIONS FOR FUTURE STUDIES

This study was conducted on the relationship between metacognitive online reading strategies and Libyan EFL students' Future studies are recommended to investigate the relationship between socioeconomic status and metacognitive online reading strategies. As age can also play a role in metacognitive online reading strategies, in order to age as one of the factors affect the second language acquisition. It is also recommended that future study be conducted on the relationship between age and metacognitive online reading strategies.

Other studies could be done on a larger sample size, so that the findings can be generalized. It is further suggested that the study correlates metacognitive online reading strategies with other variables such as motivation and personality. It is advisable to conduct similar studies in other different settings or to compare between two different settings in terms of metacognitive online reading strategies. It is also recommended to conduct in different level of study, for example at undergraduate or secondary school levels.

CONCLUSION

As the conclusion, the findings showed the importance of providing exposure to students, teachers and administrators on the skills of using metacognitive online reading strategies to enhance the learning of a foreign language. The conducted research into Libyan students' online reading strategies provided evidences on the variety of strategies that students reported using while they are reading materials online. Interesting findings were reported where although the sample size of students was only 100, the reported online strategies mean showed that Problem Solving strategies had the highest users, followed by support reading strategies and lastly the global strategies. The findings also showed that male students used the metacognitive online reading strategies more often when they read compared to female students.

Language teachers should be training students to use components of metacognitive online reading strategies in students' online reading tasks every day. A positive learning environment and guidance provided by teachers would help students to make use of metacognitive online reading strategies in the context of foreign language learning, thus ensuring their success in mastering the English language. It is hoped that this research would be useful and helpful in context of Libyan educational setting and EFL classrooms.

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APPENDIX 1

ONLINE SURVEY OF READING STRATEGIES

right or wrong answers to each question. Your opinion will only be used for research purposes.

The following questionnaire has been designed to identify your online reading strategies. There is no Part A: Demographic Information 1. Gender Serial No: 1- Male 2- Female 2. Age Part B: Online reading strategies survey

The purpose of this survey is to collect information about the various strategies you use when you read online in ENGLISH (e.g., doing online research).

Each statement is followed by five numbers, 1, 2, 3, 4, and 5, and each number means the following:

- '1' means that 'I never or almost never do this' when I read online.
- '2' means that 'I do this only occasionally' when I read online.
- '3' means that 'I sometimes do this' when I read online. (About 50% of the time.).
- '4' means that 'I usually do this' when I read online.
- '5' means that 'I always or almost always do this' when I read online.

After reading each statement, *circle the number* (1, 2, 3, 4, or 5) which applies to you.

Note that there are no right or wrong responses to any of the items on this survey.

Statement		Never		Always		
			2	3	4	5
1	I have a purpose in mind when I read online.					
2	I participate in live chat with other learners of English.					
3	I participate in live chat with native speakers of English					
4	I think about what I know to help me understand what I read					
	online.					
5	I take an overall view of the online text to see what it is about					
	before reading it.					
6	I think about whether the content of the online text fits my reading purpose.					
7	I review the online text first by noting its characteristics like					+
,	length and organization.					
8	When reading online, I decide what to read closely and what to					†
	ignore.					
9	I read pages on the Internet for academic purposes.					
10	I use tables, figures, and pictures in the online text to increase my					
	understanding.					
11	I use context clues to help me better understand what I am reading online.					
12	I use typographical features like bold face and italics to identify					
12	key information.					
13	I critically analyse and evaluate the information presented in the					
	online text.					
14	I check my understanding when I come across new information					
15	I try to guess what the content of the online text is about when I					
	read					
16	I check to see if my guesses about the online text are right or					
	wrong					
17	I scan the online text to get a basic idea of whether it will serve my					
	purposes before choosing to read it					
18	I read pages on the Internet for fun.					
19	I read slowly and carefully to make sure I understand what I am					
20	reading online					-
20	I try to get back on track when I lose concentration.					
21	I adjust my reading speed according to what I am reading online.					
22	When online text becomes difficult, I pay closer attention to what I					
	am reading.					
23	I stop from time to time and think about what I am reading online.					
24	I try to picture or visualize information to help remember what I		+	+	+	1
<i>4</i> ¬	read online.					
25	When online text becomes difficult, I re-read it to increase my		+	+	+	
	understanding.					
26	When I read online, I guess the meaning of unknown words or			1		1
	phrases.					
27	I critically evaluate the online text before choosing to use					
	information I read online.					
28	I can distinguish between fact and opinion in online texts.					
	Statement	Nev	/or	Alwa	WC	1
	Statement	146	, CI	TIWA	ys	

		1	2	3	4	5
29	When reading online, I look for sites that cover both sides of an issue.					
30	I take notes while reading online to help me understand what I read.					
31	When online text becomes difficult, I read aloud to help me understand what I read.					
32	I print out a hard copy of the online text then underline or circle information to help me remember it.					
33	I use reference materials (e.g. an online dictionary) to help me understand what I read online.					
34	I paraphrase (restate ideas in my own words) to better understand what I read online					
35	I go back and forth in the online text to find relationships among ideas in it.					
36	I ask myself questions I like to have answered in the online text.					
37	When reading online, I translate from English into my native language.					
38	When reading online, I think about information in both English and my mother tongue.					

Adapted from Neil J. Anderson 2003