

WCLTA 2011

Metacognitive Awareness of Academic Reading Strategies

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Abstract

Metacognitive awareness is considered as the key factor for proficient strategic reading, particularly for academic reading. The present study was designed to determine the Turkish university students' metacognitive awareness of academic reading strategies. Thus, through the Survey of Reading Strategies, the students' metacognitive awareness of Global, Problem-Solving and Support reading strategies used in academic reading were investigated. The results indicated that the participants usually used academic reading strategies so they were often aware of these strategies. They mostly used and got aware of problem-solving strategies but the supporting strategies was leastly used in academic reading.

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Keywords: Metacognitive awareness; Academic reading strategy, Strategy types

1. Introduction

Reading is defined as an interactive cognitive process in which readers interact with text. During reading process, readers constantly form hypotheses, test predictions and use their knowledge of vocabulary and language to construct meaning (Carrell, 1989; Zhang, 2001). With the emergence of psycholinguistic models of second language reading, readers' background knowledge and use of appropriate strategies such as previewing text, using contextual cues or making inferences has been emphasized for reading comprehension (Sheorey & Mokhtari, 2001). Such strategies are considered to reveal about the way readers manage their interaction with written text, to make reading more effective and to improve comprehension (Singhal, 2001). Reader's awareness, monitoring and regulating of these strategies while reading are called as metacognitive awareness (Anderson 2002). It is considered as the key factor for proficient strategic reading since learners with metacognitive awareness could consciously direct the reasoning process and use strategies effectively while reading and they can access and apply these strategies and reasoning to future reading tasks easily (Carrell et al, 1989; Sheorey & Mokhtari, 2001)

Despite the consensus on the significance of metacognitive awareness, there are limited studies on this issue and the studies, investigating metacognitive awareness with different population at different proficiency levels and with various reading goals, are required to define the metacognitive awareness of reading strategies (Mokhtari & Sheorey, 2002; Anderson, 2002). Considering this need, the present study was designed to investigate the university students' metacognitive awareness of reading strategies they use while reading academic texts. Through this study, it was attempted to gain more insights about how readers use their resources for cognitive awareness in reading. Moreover, it is hoped to lead further studies on the learners' awareness of the reading process. It is believed that the results of such study could provide teacher educators and instructors practical suggestions for helping learners increase their awareness and use of reading strategies (Mokhtari & Sheorey, 2002).

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2. Literature Review

2.1. Reader's Metacognitive Awareness

Recently, within the domain of reading research in L1 and L2, metacognitive awareness of one's cognitive and motivational process while reading has received considerable interest (Mokhtari & Reichard, 2002; Mokhtari & Sheorey, 2002; Anderson, 2002; Cromley & Azevedo, 2006). Auerbach and Paxton (1997) explained that metacognitive awareness "entails knowledge of strategies for processing texts, the ability to monitor comprehension and the ability to adjust strategies as needed" (p.240-241). Such awareness and monitoring processes are often referred as *metacognition*. In literature, different aspects of metacognition have been studied using different terms, such as metacognitive ability (Baker & Brown, 1984), metacognitive knowledge (Sheorey & Mokhtari, 2001), metacognitive awareness (Carrell, 1989; Mokhtari & Sheorey, 2002), and metacognitive strategies (Berkowitz & Cicchelli, 2004; Chen et al, 2009). Recently, as a consequence of shift of focus in reading research to academic reading, the strategies used in academic reading has been the research focus. For instance; Sheorey and Mokhtari (2001) investigated differences in cognitive, metacognitive, and support strategy use in academic reading among both native and non-native English readers and they concluded that "skilled readers are more able to reflect on and monitor cognitive processes while reading" (p.445). In the same vein, Anderson (2002) found that second language readers most often use the Problem Solving Strategies (e.g. adjusting reading rate, rereading difficult texts and pausing to think about what one is reading).

In brief, much of the research about metacognition in L2 reading strategies suggested that readers' metacognitive awareness are related positively to their success in L2 reading comprehension and performance and that both reading proficiency and L2 overall proficiency are connected to readers' development of metacognition (Carrell, 1989; Sheorey & Mokhtari, 2001; Anderson, 2002; Mokhtari and Reichard, 2004). More proficient readers tend to have better awareness of their metacognitive knowledge than poor readers (Phakiti, 2003).

Thus, it is crucial for L2 readers to be aware of how they employ reading strategies in planning, regulating, and evaluating their own reading processes. Considering this significance of metacognitive awareness of reading strategies for reading performance the present study was designed to determine the Turkish university students' metacognitive awareness of academic reading strategies. Firstly it was attempted to define the participants' reading strategies used in academic reading and to determine the frequency of these strategy use so that the students' profile of metacognitive awareness of these reading strategies could be described. The research questions addressing this aim is;

1. What is Turkish EFL students' metacognitive awareness of academic reading strategies?

3. Method

3.1. Participants

The participants in this study were 16 Turkish EFL (English as a Foreign Language) students enrolled at Anadolu University in Turkey. All participants were adult L2 learners, attending to English Language Teaching program at Education Faculty. The participant students have had compulsory reading courses, and they have been trained on effective reading strategies during their university education,. Besides, they have to read academic texts for the assignments and exams of other courses.

3.2. Instruments

In this study, in order to determine the participants' metacognitive awareness of reading strategies used in academic texts, the Survey of Reading Strategies (SORS), developed by Mokhtari and Sheorey (2002), was used. The SORS was validated (Cronbach's alpha=0,93) in different studies (Mokhtari and Sheorey 2002; Sheorey & Mokhtari; 2001). It consists of 28 items, each of which uses a five-point Likert scale ranging from 1 ("never do this") to 5 ("I always do this"). Students are asked to read each statement and circle the number that applies to them, indicating the frequency with which they use the reading strategy in the statement. Thus, it is considered that the higher the number is, the more frequent the perceived use of the strategy becomes. The SORS measures three board categories of reading strategies, namely global reading strategies, problem solving strategies, and support strategies.

For global reading strategies (GLOB), there are 13 items which focus on the setting the purpose of reading, while for problem-solving strategies (PROB), 8 items are posed examining the problem-solving and repair strategies while reading. Lastly, for support strategies (SUP), 9 items are asked.

3.3. Data Analysis

In data analysis, SPSS 15.0 was used to apply descriptive statistical procedures. The mean values, standard deviation values and percentages were obtained to discuss overall use of reading strategy, and use of each strategy category, lastly, the most frequent and least frequent strategies

4. Results

To interpret the results, the range intervals indicating the frequency of strategy use from Always to Never were calculated for the data collection instrument (SORS). Accordingly, the mean scores between 1-1, 79 refers to never, 1, 80-2, 59 rarely, 2, 60-3, 39 sometimes, 3, 40-4, 19 usually, 4, 20-5 always use of reading strategies.

The means and frequencies of strategy use for each category was calculated and interpreted considering the range intervals, it was found that the overall mean value of individual strategies in the instrument was 3,70. Considering the range intervals above (3, 40-4, 19 USUALLY), this finding indicated that the participants *usually* use all reading strategies, thus they were *usually* aware of their reading strategies while reading academic texts. On the other hand, the value of SD (1,1399) indicated that there was a variety in the participants’ responses. To explain the participants’ responses to strategy items better, in the following, the percentages were illustrated in Figure 1.

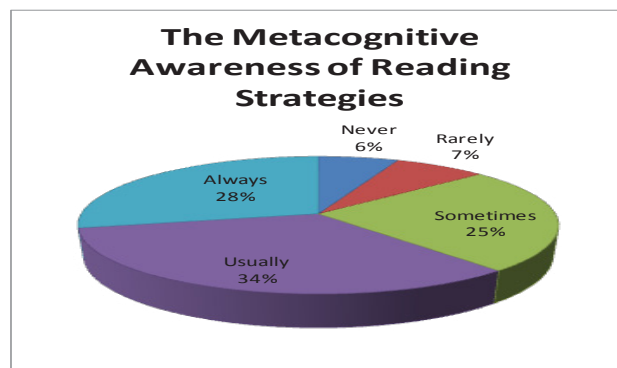


Figure 1. Participants’ overall reading strategy use and their metacognitive awareness

As seen in Figure 1, out of 16 participants, 34% of them reported that they usually use the reading strategies, besides, 28% of the participants reported that they *always* use these strategies. The low percentages of Never (6%) and Rarely (7%) implied that they were mostly aware of these strategies and most of the participants preferred to use reading strategies while reading academic texts.

In addition to overall frequency of the reading strategies, the mean values and frequencies of responses to items in three reading strategy categories were separately analysed and the findings are presented in Figure 2.

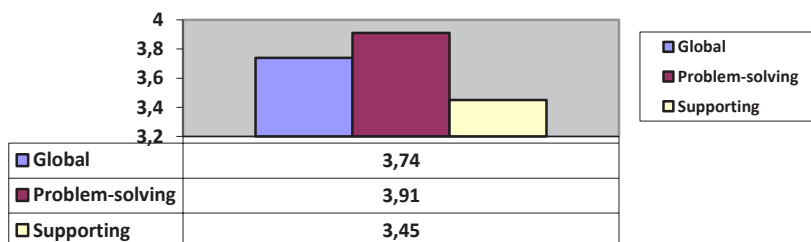


Figure 2. The Distribution of students' metacognitive awareness in terms of strategy types

As indicated in Figure 2, the students explained that they mostly used problem-solving strategies while reading academic texts. This strategy type is followed with global reading strategies with mean value of 3, 74. The least used strategy type among them was found as supporting strategies (mean=3, 45). To make sense of these findings and interpret the reasons underlying them, each item under each strategy type was reanalyzed. The mean values of each item under each category are provided with the highlighted most frequent strategy types, in Table 1 below.

Table 1. Participants' metacognitive awareness of different strategy types

	Strategy	X	SD		Strategy	X	SD
Glob1	Setting purpose for reading	3,87	0,81	Prob1	Reading slowly and carefully	3,68	1,14
Glob2	Using prior knowledge	4,12	0,89	Prob2	Trying to stay focused on reading	3,87	1,20
Glob3	Previewing text before reading	4,50	0,63	Prob3	Adjusting reading rate	4,25	0,77
Glob4	Checking how text content fits purpose	3,62	1,15	Prob4	Paying close attention to reading	4,00	1,21
Glob5	Skimming to note text characteristics	3,37	1,20	Prob5	Pausing and thinking about reading	3,43	1,31
Glob6	Determining what to read	4,18	0,75	Prob6	Visualizing information to read	3,75	1,29
Glob7	Using text features (e.g.tables)	3,06	1,34	Prob7	Re-reading for better understanding	4,37	0,62
Glob8	Using context clues	3,93	0,68	Prob8	Guessing meaning of unknown words	3,98	0,77
Glob9	Using typographical aids (e.g.italics)	3,18	1,47	Supp1	Taking notes while reading	3,62	1,15
Glob10	Critically evaluating what is read	3,31	1,08	Supp2	Reading aloud when text becomes hard	3,18	1,47
Glob11	Resolving conflicting information	3,81	0,98	Supp3	Summarizing text information	4,50	0,63
Glob12	Predicting or guessing text meaning	3,93	1,06	Supp4	Discussing reading with others	3,37	1,20
Glob13	Confirming predictions	3,75	1,13	Supp5	Underlining information in text	3,68	1,25
				Supp6	Using reference materials	3,75	1,06
				Supp7	Paraphrasing for better understanding	2,75	1,18
				Supp8	Going back and forth in text	2,75	1,18
				Supp9	Asking oneself questions	3,43	0,96

As Table 1 indicates, for the global strategies, twelve of the strategies were reported 3,31 to 4,18 mean values while one of these strategies, "Previewing text before reading" (GLOB3) was reported as use "always", with mean value of 4,50. Furthermore, the students' awareness of problem-solving strategies was also found as high. Six of the strategies were reported to be used usually while (PROB=3)"adjusting reading rate" ($M=4,25$) and (PROB7) "Re-reading for better understanding" ($M=4,37$) were reported as most frequent problem solving strategies that the participants preferred to use for academic reading. Similar to other two reading strategy categories, the participants' mean values of overall support reading strategy use ($M=3,45$) also fell into the interval of 3,40-4,19 = usually. Thus, again the participants reported that they *usually* apply the support reading strategies. (SUPP3)"summarizing text information" ($M=4,50$) was reported as the most frequently used strategy. The possible explanation of overuse of this strategy might be the necessity of this strategy for analysis and synthesis skills required for comprehension.

5. Discussion and Conclusion

This study was designed to determine Turkish EFL university students' metacognitive awareness of reading strategies applied during academic reading. The results indicated that they usually used academic reading strategies ($M=3,70$). Thus, it might be claimed that the participants in this study were often aware of these strategies and they used them frequently. These results were consistent with the findings of Sheorey and Mokhtari's (2001) study that non-native readers frequently used reading strategies thus their metacognitive awareness was high. Furthermore, The findings indicating predominant use of problem-solving strategies in the present study was consistent with Mokhtari and Reichard (2004) and Sheorey and Mokhtari (2001) that problem-solving strategies were mostly used by non-native readers since these strategies were critical for comprehension. Particularly, the strategies like "re-reading for better understanding", "adjusting reading rate" and "paying close attention to reading" were some of the strategies that the participants mostly preferred to use when they encountered any comprehension problems during academic reading. Berkowitz and Cicchelli (2004) underlined that learners might suffer anxiety, confusion and low motivation while reading due to comprehension problems, the problem-solving strategies, especially the ones favored by the participants of this study, might be preferred to overcome these problems and to concentrate on

reading effectively. Moreover, consistent with Mokhtari and Sheorey (2001) findings, the participants in this study preferred to apply the strategy of “guessing unknown words from context” most frequently among problem-solving strategies. This strategy is usually encouraged in the courses and the learners are usually trained to apply this strategy if they encounter any comprehension problem due to an unknown word.

In addition, Global reading strategies ($M=3,74$) were reported to be the next most frequently used strategies, especially “previewing text before reading” and determining what to read” and “using prior knowledge”. As Sheorey and Mokhtari (2001) drew attention these strategies are usually encouraged as a pre-reading activity in textbooks and teachers preferred to active students’ “prior knowledge “about the content of text so the participants of the present study might favor these strategies. On the other hand, the results indicated that Support reading strategies were least frequently employed ($M=3,45$), these strategies refer to support mechanisms or tools required to clarify text information (e.g. use of reference materials like dictionaries; reading aloud; going back and forth). The reason for the limited use of support strategies might be the participants’ unwillingness to use these time-consuming strategies.

The results of this study lead the conclusion that Turkish EFL students at university level usually applied reading strategies in academic reading. Particularly, problem-solving strategies were preferred most frequently to overcome reading difficulties, followed by global reading strategies to define the setting for reading. However, support reading strategies were reported as the least frequent strategies. As an individual strategy, “previewing text before reading”(GLOB) and “summarizing text information”(SUPP) were found as two top strategies that the participants used most frequently, however, “going back and forth while reading”(SUPP) and “paraphrasing” (SUPP) were defined as the least frequent strategies. Thus, it might be concluded that although the participants in this study preferred to use reading strategies frequently (i.e. usually) and thus they were “often” aware of these strategies, in terms of strategy types, they favored problem-solving strategies and global reading strategies.

References

- Anderson, N. J. (2002). The role of metacognition in second/foreign language teaching and learning. ERIC Digest. Washington, DC: ERIC Clearinghouse on Languages and Linguistics.
- Auerbach, E., & Paxton, D. (1997). “It’s not the English thing”: Bringing reading research into the ESL classroom. *TESOL Quarterly*, 31, 237–261.
- Baker, L., & Brown, A. L. (1984). Metacognitive skills and reading. In P. D. Pearson (Ed.), *Handbook of reading research* (pp. 353-394). New York: Longman.
- Berkowitz, E. & T. Cicchelli. (2004). “Metacognitive Strategy Use in Reading of Gifted High Achieving and Gifted Underachieving Middle School” in *Education and Urban Society*, 37(1), pp.37-57.
- Chen, M. H, Gualberto, P. J. & Tameta, C. L. (2009). The Development of Metacognitive Awareness Inventory. *TESOL Journal*, Vol. 1 43-57.
- Carrell, P. L. (1989). Metacognitive Awareness and Second Language Reading. *Modern Language Journal*, vol. 73, pp. 121-134.
- Cromley, J. G. & Azevedo, R. (2006). Self-report of reading comprehension strategies: What are we measuring? *Metacognition and Learning*, 1(3), 229-247.
- Mokhtari, K., & Sheorey, R. (2002) Measuring ESL students’ awareness of reading strategies. *Journal of Developmental Education*, vol. 25, no. 3, pp. 2-10.
- Mokhtari, K., & Reichard, C. (2002). Assessing students’ metacognitive awareness of reading strategies. *Journal of Educational Psychology*, 94(2), 249–259.
- Mokhtari, K., & Reichard, C. (2004). Investigating the strategic reading processes of first and second language readers in two different cultural contexts. *System*, 32, 379-394.
- Sheorey, R., and Mokhtari, K. (2001) Differences in the metacognitive awareness of reading strategies among native and non-native readers. *System*, vol. 29, pp. 431-449.
- Singhal, M. (2001). “Reading Proficiency, Reading Strategies, Metacognitive Awareness and L2 Readers” *The Reading Matrix*, 1, 1-9.
- Phakiti, A. (2003). A closer look at the relationship of cognitive and metacognitive strategy use to EFL reading achievement test performance. *Language Testing*, 20(1). 26-56.
- Zhang, L. J. (2001). Awareness in reading: EFL students’ metacognitive knowledge of reading strategies in an acquisition-poor environment. *Language Awareness*, 10, 268–288.