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Volume 10, Number 2, September 2010

A Comparison of the Metacognitive Reading Strategies Used by EFL and ESL Readers

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ABSTRACT

This study investigated whether there are any significant differences between EFL and ESL readers in metacognitive reading strategies when they are reading academic texts in English. One hundred and ninety undergraduate students (96 Iranians and 93 Indians) completed an instrument designed to measure the students' metacognitive awareness of reading strategies after performing a reading comprehension test. The result of this study indicated that the subjects in both groups reported a similar pattern of strategy awareness while reading academic texts although the two student groups had been schooled in significantly different socio-cultural environments. Regarding the difference existing among both groups, Indians reported more awareness and use of global support and total metacognitive reading strategies. Iranian students reported no significant difference in using problem-solving reading strategies. These findings explain some of the differences and similarities between EFL and ESL readers by employing metacognitive strategies in both contexts.

INTRODUCTION

Interest in second language acquisition, particularly as it relates to reading in the second language, has burgeoned in the past decade. This has resulted in a growing demand for both effective reading courses as well as high-quality second language materials. Research has demonstrated that in essence, reading in a second language is a dynamic and interactive process by which learners make use of background knowledge, text schema, lexical and grammatical awareness, L1-related knowledge, and real-world knowledge, as well as their own personal purposes and goals, to arrive at an understanding of written material. At the same time, readers' views of the nature of reading are seen to be shaped by their own social, cultural, and personal histories.

According to Anderson (2003), reading is the interaction of four things including the reader, the text, the fluent reading or "the ability or read at an appropriate rate with adequate comprehension," and strategic reading, or "the ability of the reader to use a variety of reading strategies to accomplish a purpose for reading" (p. 8). Discovering the best methods and techniques or processes the learners choose to access, is the goal of research in reading strategies.

In addition, reading is the kind of process in which one needs to not only understand its direct meaning, but also comprehend its implied ideas. As Tierney (2005) states, "[l]earning to read is not [only] learning to recognize words; it is [also] learning to make sense of texts" (p. 51). It involves a great deal of cognitive capacity available for comprehension (Pressley, 2002). For example, good readers know that comprehension is most likely to occur from reading activity. They know how to relate what is being read to prior knowledge, how to predict what might be coming up in the text, and summarize what is being read (Pressley, 2002). These comprehension strategies are metacognitive concepts in reading. If students are capable of comprehending what they are reading through a variety of strategies, they will create an interested and self-regulative attitude toward the path of academic achievement.

Regarding the importance of reading comprehension, it should be pointed out that it is specifically the basic goal for ESL/EFL students to gain an understanding of the world and of themselves, enabling them to think about and react to what they read (Tierney, 2005). According to Grabe (1991), reading is an essential skill and probably the most important skill for second language learners to master in academic contexts. Since reading comprehension has been distinctively important both in first and second/foreign languages, reading strategies are of great interest in the field of reading research. Reading research has also shed light on metacognitive awareness of reading strategies, perception of strategies, and strategy training and use in reading comprehension.

METACOGNITION

Metacognition is defined as "thinking about thinking" (Anderson, 2002, p. 23). This term was first coined by Flavell in the mid 1970s. According to Byrd, Carter, and Waddoups (2001), it is accounted as self-awareness of mental process. Oxford (1990) believes that metacognitive strategies "provide a way for learners to coordinate their own learning process" (p. 136).

Others contend that metacognition refers to the knowledge and control that we have over our cognitive processes. As far as it is concerned with reading, it is common to talk about metacognitive awareness (what we know) and metacognitive regulation or control (knowing when, where, and how to use strategies, that is, what we can do). As a whole, metacognitive involves awareness and control of planning, monitoring, repairing, revising, summarizing, and evaluating. Essentially, we learn strategies that support our comprehension (our awareness of strategies) and we learn how to carry out these strategies effectively (our control of strategies) (Baker, 2002, 2008; Pressley, 2002b).

Since its development in the late 1970s, the theory of metacognition has received a great deal of attention and serious consideration from cognitive and developmental psychologists, as well as reading researchers. Although the theory of metacognition originated from the research on learning and memory, the success of research studies in cognitive/developmental psychology, especially Kreutzer, Leonard, Flavell, and Hagen's (1975) study on children's metamemory, has undoubtedly exerted a significant influence on reading research. Cognitive and developmental psychologists have provided reading researchers with deep insights into problems of reading comprehension, and have created an ongoing enthusiasm for further exploration and investigation of reading problems within the theoretical and conceptual framework of metacognition.

Research on the relationship between metacognition and reading comprehension has progressed through several different stages. During the early stages, research focused on the investigation of the relationship between metacognition and reading comprehension from the developmental perspective. Brown (1980) and Baker and Brown (1984) were among the first influential researchers in this field. They concluded that young students are ignorant of metacognitive strategies in knowing when they are comprehending, knowing what they need to know and what they have comprehended, knowing where they fail to comprehend, and knowing what they need to do in order to repair comprehension failure.

READING STRATEGY RESEARCH

A strategy is an individual's comprehension approach to a task. It includes how a person thinks and acts when planning and evaluating his or her study behavior. In effect, successful people are good strategy users; they know how to use a variety of goal-specific tactics, execute a planned sequence, and monitor their use (Weinstein & Mayer, 1985; Weinstein & Underwood, 1985; Gettinger & Seibert, 2002; Adams & Hamm, 1994). There are many reading strategies employed by successful language learners such as being able to organize information, use linguistic knowledge of their first language when they are learning their second language, use contextual cues, and learn how to chunk language, to name a few.

Successful language learners know how to use such reading strategies efficiently. The purposes of reading strategies are to have general knowledge, get a specific detail, find the main idea or theme, learn, remember, delight, summarize, and do research (Hyland, 1990). Regarding the importance of reading strategies, Pressley and Afflerbach (1995) identified several key strategies that were evident in the verbal protocols they reviewed, including: (a) overview before reading; (b) look for important information and pay greater attention to it; (c) relate important points to one another; (d) activate and use prior knowledge; (e) change strategies when understanding is not good; and (f) monitor understanding and take action to correct inaccuracies in comprehension.

The current understanding of reading strategies has been shaped significantly by research on what expert readers do (Bazerman, 1985; Pressley & Afflerbach, 1995). These studies demonstrate that successful comprehension does not occur automatically. Rather, successful comprehension depends on directed cognitive effort, referred to as metacognitive processing, which consists of knowledge about and regulation of processing. During reading, metacognitive processing is expressed through strategies, which are "procedural, purposeful, effortful, willful, essential, and facilitative in nature" and "the reader must purposefully or intentionally or willfully invoke strategies" (Alexander & Jetton, 2000, p. 295), and does so to regulate and enhance learning from text. Through metacognitive strategies, a reader allocates significant attention to controlling, monitoring, and evaluating the reading process (Pressley, 2000; Pressley, Brown, El-Dinary, & Afflerbach, 1995). Additionally, Sheorey and Mokhtari (2001) stated that it is the combination of conscious awareness of the strategic reading processes and the actual use of reading strategies that distinguishes the skilled from unskilled readers. Studies show that unsuccessful students lack this strategic awareness and monitoring of the comprehension process (Garcia, Jimenez, & Pearson, 1998).

Research addressing metacognitive awareness and use of reading strategies by first and second language readers of English has shown that important reading strategies which deal with

planning, controlling, and evaluating one's understanding (e.g., setting purpose for reading, prediction, summarization, questioning, use of text structural features, self-monitoring, etc.) are widely used by first and second language readers (Sheorey & Mokhtari, 2001). Furthermore, the supply of strategies used by proficient bilingual and biliterate readers often include some strategies that may be unique and particularly useful to reading in a second language, e.g., code-mixing, translation, and use of cognates (Jimenez, Garcia, & Pearson, 1995, 1996). With respect to this issue, Feng and Mokhtari (1998) examined the reading strategies of 20 Chinese proficient college students employed when reading easy and difficult texts in English and Chinese. They found that readers appealed to a wide-ranging supply of strategies while reading in English and Chinese. However, a majority of the strategies employed while reading were used more frequently in English than in Chinese. Besides, more strategies were used when the subjects read texts that proved difficult rather than their easier counterparts.

In addition, Sheorey and Mokhtari (2001) examined differences in the metacognitive and perceived use of reading strategies among 105 United States (US) and English as Second Language (ESL) university students in the US. They draw the conclusion, first, that both the US and ESL students showed a high level of various reading strategies awareness. Second, both groups attributed the same order of importance to categories of reading strategies in the survey, regardless of their reading ability or gender. Third, both ESL and US high-reading-ability students show comparable degrees of higher reported use for cognitive and metacognitive reading strategies than lower-reading ability students in the respective groups, and while the US high-reading-ability students seem to consider support reading strategies to be relatively more valuable than low-reading-ability US students, ESL students attribute high value to support reading strategies, regardless of their reading ability level.

Mokhtari and Reichard (2004) also investigated whether significant differences exist between first and second language readers in their metacognitive awareness and perceived use of specific strategies when reading for academic purposes in English. Regarding this study, a total of 350 college students, including 141 American and 209 Moroccan students, completed an instrument designed to measure their metacognitive awareness of reading strategies. The results revealed that despite the fact that the two groups had been schooled in significantly different socio-cultural environments, they reported remarkably similar patterns of strategy awareness and use while reading academic materials in English. Both groups demonstrated a moderate to high awareness level of reading strategies. Concerning the types of strategies reported by the subjects, Moroccan students reported using certain types of strategies more often than their American counterparts.

Despite the rapidly expanding research on different aspects of second and foreign language readings, a limited number of studies have centered on reporting the types of metacognitive reading strategies EFL and ESL readers use while they are reading in English. No research currently exists regarding the study of the metacognitive awareness of reading strategies in different social, cultural, and linguistic contexts. As Mokhtari and Reichard (2004) stated, most of the research available focuses on monolingual and bilingual children with similar backgrounds on specific metacognitive knowledge, metalinguistic skills, and reading performance. In addition, with the exception of a few studies, most of the research on the reading strategies of first and second language readers has been limited to students at lower levels of proficiency or those studying at the secondary school or in pre-university programs.

However, EFL and ESL university students have to read a large volume of academic texts in English, but many of them entering university education are unprepared for the reading

demands placed on them (Dreyer & Nel, 2003). They show an inability to read selectively or to extract what is important for the purpose of reading and discarding what is insignificant. Also, they often select ineffective and inefficient strategies with little strategic intent (Wood, Motz, & Willoughby, 1998).

Having known about the importance of the reading strategies and their impact on learning, and considering that presently no research has been done in relation to metacognitive reading strategies among EFL and ESL college learners (namely, Iran and India) who vary in cultural, linguistic, and educational backgrounds, this research serves as the focus of the present study. My underlying hypothesis in doing this comparative study was that although both groups of subjects may be considered to have the introductory language proficiency for college-level academic reading in English, they are not expected to utilize similar strategic awareness in dealing with their academic reading tasks thanks to the differences existing in their social, cultural, and educational backgrounds. I conducted the present research in order to find answers to the following two questions concerning students' awareness of reading strategies while reading texts for comprehension:

1. Are there any significant differences between EFL and ESL learners in their perceived use of reading strategies while reading academic text in English?
2. What reading strategies do EFL and ESL learners use better when they are reading academic text in English?

METHODOLOGY

Subjects

The participants in this study consisted of 189 college students including 93 Indians and 96 Iranians. The students, who were both freshman and sophomore and were admitted to their respective universities for full-time academic study, were majoring in English Translation and Literature. All the participating students had completed 12 years of schooling and had graduated from high school prior to their enrollment in college. According to background information questionnaire (see Appendix A), both groups had similar characteristics with respect to age (Indian mean age = 20; Iranian mean age = 22), proficiency level (Indian mean = 17; Iranian mean = 15), language of instruction (English for both Indian and Iranian), and gender distribution (Indian: 54% males versus 46% females; Iranian: 32% males versus 68% females). The only difference is the instructional context in which both groups are studying English (i.e., ESL and EFL).

Instructional Context

In this study, the participants were studying English in two completely different instructional contexts, which represent a significantly different socio-cultural level. What has attracted more attention in this study is the place or context in which instruction is taking place, particularly in regard to the instructional practices used in teaching reading to students. Iranian students enjoy learning English in a monolingual society in which learning English is confined to the classrooms while Indians are experiencing it in a multilingual country in which, at least, three

primary languages coexist: Kannada, Hindu, and English. It should also be mentioned that English is being learned as the Indian students' second language. However, Nayar (1994) characterized the English situation in today's Indian as ESL1 thanks to some reasons including: English is not "native" to the Indian environment, although it is used extensively by a small but influential group of people "as a medium of communication in a variety of domains like education, administration, and commerce" (p. 15). Second, in multilingual Indian, English serves as a link language among educated Indians who typically speak a variety of indigenous languages. Third, there is "a certain amount of environmental support for English, in the form of, for example, popular English media and indigenous literature in English" (p. 15). Fourth, English is one of the official languages of the country, with the status of associate national language, and mastery of English is considered a social and educational accomplishment. Indians secretly believe, if not openly say, that competence in English makes a considerable difference in their career prospects—politicians and bureaucrats denounce the elitism of (English-medium) students but surreptitiously send their children to them (Gupta, 1995, p. 76). Ultimately, as Kachru (1986) announced, English "has now become an integral part of Indian's linguistic repertoire" (p. 32).

In spite of the importance of English and a demand for it, the teaching of reading in English in Iran and India at the college level is still fraught with a multitude of difficulties and obstacles; it is an overlooked skill. It is crucial to also mention that while the theoretical foundations and instructional approaches employed in teaching reading may be similar in some ways in both contexts, the Indian students studying English in an ESL setting have two obvious advantages over their Iranian counterparts studying in an EFL context. First, they have more access to educational resources because most of their courses are presented or taught in English. Second, English is considered a native-like language for Indian students, while it is a foreign language for the Iranian students with little exposure to it.

Materials

Reading Comprehension Test

The test of reading comprehension was taken from *Kit of Reading Comprehension* (Rajinder, 2008). The time allotted for this study was 60 minutes as it was determined in the piloting stage. The reading passages used in this study included general content which was of interest to the students. Running through K-R21, it was demonstrated that this reading comprehension test was reliable enough (0.78, and 0.68, for Indian and Iranian respectively) for the relevant goals in the current study. Further, the test proved itself suitable to this study after the correlation coefficient (0.70, and 0.66) between the TOEFL proficiency test and the test of reading in English (in the piloting stage) were calculated for creating a valid test.

Background Questionnaire

A background questionnaire was developed by this investigator for the purpose of eliciting information about the participants' age, gender, place of living, years of studying English, and medium of instruction (see Appendix A).

Metacognitive Awareness of Reading Strategies Inventory (MARSI)

The students' metacognitive awareness of reading strategies was assessed through the use of the Metacognitive Awareness of Reading Strategies Inventory (MARSI) Questionnaire designed to measure adolescent and adult students' awareness and use of reading strategies while reading academic or school-related materials. The MARSI Questionnaire (see Appendix B) measures three broad categories of reading strategies including:

(1) Global Reading Strategies (GLOB), which can be thought of as generalized or global reading strategies aimed at setting the stage for the reading act (e.g., setting a purpose for reading, previewing text content, predicting what the text is about, etc.),

(2) Problem-Solving Strategies (PROB), which are localized, focused problem-solving or repair strategies used when problems develop in understanding textual information (e.g., checking one's understanding upon encountering conflicting information, re-reading for better understanding, etc.), and

(3) Support Reading Strategies (SUP), which involves using the support mechanisms or tools aimed at sustaining responsiveness to reading (e.g., use of reference materials like dictionaries and other support systems).

The 30-item questionnaire was validated by Mokhtari and Reichard (2002) using large subject population representing students with equivalent reading abilities ranging from middle school to college. The internal consistency reliability coefficient for its three above subscales ranged from 0.89 to 0.93 and reliability for the total sample was 0.93, showing a reasonably dependable measure of metacognitive awareness of reading strategies. However, to see whether this question is reliable for the subjects of this study or not, it was given to 20 students of the similar group participating in the study for both contexts. Based on the collected data, the reliability coefficient alpha for this questionnaire was calculated to be 0.70 and 0.65 for Indian and Iranian, respectively, which confirmed the appropriateness of this questionnaire for both contexts.

Procedure

The following procedures were adopted in order to meet the objective of this study. First, the background questionnaire was given to the subjects after some modifications were made due to recommendations given on the part of advisors. Second, the subjects were given the reading comprehension test in order to answer the questions based on the background knowledge on reading strategies. Finally, the subjects were given the metacognitive reading strategies questionnaire after completing the reading comprehension test. The MARSI Questionnaire was administered to the subjects in a similar way in Iran and India as it was the case for all questionnaires in this study. It was conducted during a regular class period, with the help of the classroom instructors who were well acquainted with the general objective of the research project. The researcher gave an overview of the purpose of the study, and a description of the instrument with an explanation of the steps involved in completing it was presented to the subjects in both contexts. The students were instructed to read each of the 30 statements in the

MARSI Questionnaire and circle the number which best indicated their perceived use of the strategies described in the statement using a Likert scale ranging from 1 ('I never or almost never use this strategy') to 5 ('I always or almost always use this strategy'). In addition, the students were informed to work at their own pace while bearing in mind the reading comprehension test and other academic reading materials. Lastly, they were told that there were no "right" or "wrong" responses to the statements and that they could take as much time as they needed to complete the inventory.

RESULTS

The paired T-test was employed to analyze the data in this study. Statistical representation of the analyzed data is given in Tables 1 and 2. Table 1 contains data regarding the first question—*Are there any significant differences between EFL and ESL learners in their perceived use of reading strategies while reading in English?* As shown in Table 1, EFL (Iranian) and ESL (Indian) college students differed significantly in their total metacognitive reading strategies ($t= 3.465$; $p<005$), two of the subscales (Global and Support reading strategies) and 19 individual strategies. Regarding the total reading strategies, Indians as ESL learners reported better use of these strategies ($M= 104.16$; $SD= 12.81$) than Iranian as EFL learners ($M= 95.81$; $SD= 19.52$). Concerning the global reading strategies, Indians were also reported as having better use of these strategies ($M= 43.47$; $SD= 6.83$) than Iranians ($M= 40.90$; $SD= 9.09$). With respect to support reading strategies, Indians reported using these strategies better ($M= 31.83$; $SD= 4.73$) in comparison to their Iranian counterparts ($M= 26.61$; $SD= 5.99$). However, both subject groups reported the same use of problem-solving strategies. Similarly, concerning the significant differences among individual strategies' use on the part of both groups, in all except four strategies, Indian students stated greater strategy use than Iranian students. Among the global reading strategies, Indians reported to be better in using the strategies like setting purpose for reading, previewing text, determining what to read, resolving conflicting information, and confirming prediction, while Iranians stated better use of typographical aids and critically evaluating what is read. Regarding problem-solving strategies, Indian ESL learners reported using three strategies: reading slowly and carefully, adjusting reading rate, and visualizing information read, whereas Iranian EFL learners reported using only the strategy of pausing and thinking about reading. As concerns support strategies, Indians reported to be better users of almost all strategies including note-taking, reading aloud, summarizing, discussing reading, underlining, paraphrasing, and asking questions, while Iranians reported better employment of using reference materials such as a dictionary.

As Table 1 indicates, for Indian ESL students, the means of individual strategy use ranged from a high of 4.23 (reading slowly and carefully) to a low of 2.60 (checking how text content fits purpose),with a low overall reported strategy usage mean of 104.16 ($SD= 12.81$). Conversely, for Iranian EFL students, the mean of individual strategy usage ranged from a high of 4.13 (using reference materials) to a low of 2.34 (taking notes while reading), with an overall reported strategy usage mean of 95.81 ($SD= 19.52$).

Table 1. Differences in Metacognitive Awareness of Reading Strategies Used by Iranian and Indian Students

Name	Strategy	Iranian		Indian		T	p-value
		Mean	SD	Mean	SD		
GLOB1	Setting purpose for reading	3.26	1.29	3.71	.92	2.751	.007
GLOB2	Using prior knowledge	3.45	1.26	3.48	1.17	.203	.839
GLOB3	Previewing text before reading	3.13	1.32	3.65	1.20	2.824	.005
GLOB4	Checking how text content fits purpose	2.56	1.18	2.60	1.42	.209	.835
GLOB5	Skimming to note text characteristics	3.18	1.34	2.89	1.31	1.479	.141
GLOB6	Determining what to read	3.06	1.08	3.44	1.32	2.154	.033
GLOB7	Using text feature (e.g., tables)	2.84	1.35	2.78	1.21	.316	.753
GLOB8	Using context clues	3.22	1.30	3.27	1.14	.281	.779
GLOB9	Using typographical aids (e.g., italics)	3.55	1.12	2.89	1.22	3.870	.000
GLOB10	Critically evaluating what is read	2.90	1.05	3.56	1.17	4.112	.000
GLOB11	Resolving conflicting information	3.19	1.10	3.82	1.05	4.022	.000
GLOB12	Predicting or guessing text meaning	3.63	1.10	3.65	1.13	.124	.901
GLOB13	Confirming prediction	2.94	1.32	3.73	1.26	4.224	.000
PROB1	Reading slowly and carefully	3.77	1.20	4.23	.99	2.837	.005
PROB2	Trying to stay focused on reading	3.73	1.01	3.51	1.27	1.340	.182
PROB3	Adjusting reading rate	3.10	1.21	3.63	1.23	2.873	.005
PROB4	Paying close attention to reading	3.68	1.35	3.81	1.19	.698	.486
PROB5	Pausing and thinking about reading	3.48	1.18	3.01	1.28	2.617	.010
PROB6	Visualizing information read	3.20	1.24	3.66	1.20	2.571	.011
PROB7	Re-reading for better understanding	3.92	1.10	3.92	1.15	.049	.961
PROB8	Guessing meaning of unknown words	3.44	1.23	3.12	1.29	1.684	.094
SUP1	Taking notes while reading	2.34	1.29	3.74	1.17	7.805	.000
SUP2	Reading aloud when text becomes hard	2.83	1.29	3.34	1.38	2.633	.009
SUP3	Summarizing text information	2.58	1.19	3.49	1.21	5.207	.000
SUP4	Discussing reading with others	2.59	1.17	3.31	1.19	4.177	.000
SUP5	Underlining information in text	3.43	1.42	3.83	1.28	2.035	.043
SUP6	Using reference materials	4.13	1.27	3.62	1.09	2.970	.003
SUP7	Paraphrasing for better understanding	3.00	1.35	3.43	1.19	2.323	.021
SUP8	Going back and forth in text	3.31	1.17	3.45	1.03	.867	.387
SUP9	Asking oneself questions	2.40	1.16	3.61	1.18	7.163	.000
GLOB	Global Reading Strategies	40.90	9.09	43.47	6.83	2.198	.029
PROB	Problem-Solving Reading Strategies	28.30	6.15	28.86	4.59	.705	.482
SUP	Support Reading Strategies	26.61	5.99	31.83	4.73	6.630	.000
ORS	Overall Reading Strategies	95.81	19.52	104.16	12.81	3.465	.001

Table 2. Reading Strategies Reported Being Used MOST and LEAST by Iranian and Indian Students

Iranian (n=96)		Indian (n=93)	
Name	Strategy	Name	Strategy
SUP6	**Using reference materials**	**PROB1**	**Reading slowly and carefully**
PROB7	**Re-reading for better understanding**	**PROB7**	**Re-reading for better understanding**
PROB1	**Reading slowly and carefully**	**SUP5**	**Underlining information in text**
PROB2	**Trying to stay focused on reading**	**GLOB11**	**Resolving conflicting information**
PROB4	**Paying closer attention to reading**	**PROB4**	**Paying closer attention to reading**
GLOB12	Predicting or guessing text meaning	SUP1	Taking notes while reading
GLOB9	Using typological aids (e.g., italics)	GLOB13	Confirming predictions
PROB5	Pausing and thinking about reading	GLOB1	Setting purpose for reading
GLOB2	Using prior knowledge	PROB6	Visualizing information read
PROB8	Guessing meaning of unknown words	GLOB12	Predicting or guessing text meaning
SUP5	Underlining information in the text	GLOB3	Previewing text before reading
SUP8	Going back and forth in text	PROB3	Adjusting reading rate
GLOB1	Setting purpose for reading	SUP6	Using reference materials
GLOB8	Using context clues	SUP9	Asking oneself questions
PROB6	Visualizing information read	GLOB10	Critically evaluating what is read
GLOB11	Resolving conflicting information	PROB2	Trying to stay focused on reading
GLOB5	Skimming to note text characteristics	SUP3	Summarizing text information
GLOB3	Previewing text before reading	GLOB2	Using prior knowledge
PROB3	Adjusting reading rate	SUP8	Going back and forth in text
GLOB6	Determining what to read	GLOB6	Determining what to read
SUP7	Paraphrasing for better understanding	SUP7	Paraphrasing for better understanding
GLOB13	Confirming predictions	SUP2	Reading aloud when text becomes hard
GLOB10	Critically evaluating what is read	SUP4	Discussing reading with others
GLOB7	Using text features (e.g., tables)	GLOB8	Using context clues
SUP2	Reading aloud when text becomes difficult	PROB8	Guessing meaning of unknown words
SUP4	**Discussing reading with others**	**PROB5**	**Pausing and thinking about reading**
SUP3	**Summarizing text information**	**GLOB9**	**Using typological aids (e.g., italics)**
GLOB4	**Checking how text content fits purpose**	**GLOB5**	**Skimming to note text characteristics**
SUP9	**Asking oneself questions**	**GLOB7**	**Using text features (e.g., tables)**
SUP1	**Taking notes while reading**	**GLOB4**	**Checking how text content fits purpose**

Furthermore, a closer look at Table 1 indicates that 16 (48%) of the 30 strategies reported by the Indian college students fell in the high usage category (3.5 or higher mean), 14 strategies (42%) place in the medium usage category of mean (mean between 2.5 and 3.49), while none of the strategies fell in the low usage category (mean below 2.4). In contrast, 7 (21%) of the 30 strategies reported by the Iranian college students fell in the high usage category; two strategies (6%) fell in the low usage category, and the remaining 21 (63%) strategies had means in the medium use range.

Concerning the second research question—*What reading strategies do EFL and ESL learners use better when they are reading academic text in English?*—and as presented in Table 2, the strategies used by Iranian and Indian students have been arranged from most used to least used. Specifically, the top five and bottom five for each group are in bold text. Among the most-used strategies, re-reading for better understanding (Prob7), reading slowly and carefully

(Prob1), and paying closer attention to reading (Prob4) were reported to be used by both groups, although Iranians preferred to use the strategy of "using reference materials" (Sup6) at the top whereas Indians favored the use of "underlining information in text" (Sup5) at the top. Among the least-used strategies, three strategies were reported to be used less by both groups: using text features (Glob7), using context clues (Glob8), and checking how text content fits purpose (Glob4). In addition, Indians reported to make the best use of "note-taking" while reading as a support strategy whereas Iranians preferred not to use this strategy. Regarding the remaining strategies present in Table 2, both groups showed a mix of global, problem-solving, and support reading strategies.

DISCUSSION AND CONCLUSION

This study aimed to explore whether there were any significant differences in the metacognitive awareness and perceived use of reading strategies between EFL and ESL college students while reading academic materials. To this end, both groups completed a 30-item scale of the MARSI Questionnaire. The results of the study showed that both groups exhibited almost similar patterns of strategy awareness and reported usage when reading college-level materials in English, although both of them were studying English in quite different sociocultural environments (EFL vs. ESL). Regarding the differences between both groups, Indian students reported using most types of strategies more often than did their Iranian counterparts. As already noted, Indians reported using almost all the strategies included in "support reading strategies" compared to the Iranians such as summarizing, paraphrasing, note-taking, and the like. This indicated that Indians are more interested in using top-down strategies for better comprehension during reading while Iranians are more focused on using bottom-up strategies, as they are more interested in using reference materials like a dictionary to find the meaning of unknown words during reading which causes interference in comprehension. Yet another explanation supporting this result is that Indians are proficient writers which can be surmised as the main reason for a higher frequency of using the above-mentioned strategies.

In addition, both EFL and ESL college students reported select problem-solving strategies as the "most used" strategies such as "reading slowly and carefully" or "re-reading for better understanding." This suggests that both groups are not well versed in employing various useful and effective strategies for better comprehension such as summarizing, underlining, or note-taking.

Taken together, the findings reported here underscore the importance of helping EFL and ESL college readers alike develop their metacognitive awareness of specific reading strategies deemed necessary for proficient reading. As Pressley and Afflerbach (1995) have argued, teachers can play a part in enhancing students' awareness of such strategies, and in assisting them to become "constructively responsive" readers. It bears noting here that an awareness of strategic reading does indeed lead to actual use of these strategies while reading. Furthermore, the integration of metacognitive reading strategy instruction within reading curricula in both countries will no doubt play a vital role in enriching students' awareness of the mental processes involved in reading and the development of thoughtful and constructively responsive reading. Teaching students to become constructively responsive readers can promote skillful academic reading, which, in turn, can enhance academic achievement (Sheorey & Mokhtari, 2001).

Looking ahead, more research is needed to investigate why certain strategies are used or not used in EFL and ESL contexts. Individual learning styles may further demonstrate which strategies are implemented during the reading process. Perhaps future research could examine more deeply the interaction between metacognitive reading strategies and learning styles on a group of EFL and ESL learners. There is a clear need to investigate empirically the role of teaching 'important' strategies and studying their impact on learner reading comprehension in both EFL and ESL contexts. Simply knowing what strategy to use is not sufficient. An investigation into the orchestration of strategies is certain to shed new light on the issues here investigated, thereby revealing important new perspectives of what readers actually do when they become actively involved in reading activities.

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Appendix A. Student Background Questionnaire

No.	Question	Answer	
1	Name		
2	Age		
3	Gender		
4	Name of college		
5	Class studying		
6	Language		
7	Urban or rural home		
8	Familiarity with English	a. Complete b. Average c. Little	
9	Years/months studying English		
10	Purpose of learning English	a. Continue education b. Travel c. Find a good job d. Compete with other students e. Other (please write)	
11	Attitudes toward English	a. Positive b. Negative c. No comment	

Appendix B. Metacognitive Awareness of Reading Strategies Inventory

Directions: Listed below are statements about what people do when they read academic or school-rated materials such as textbooks or library books. Five numbers follow each statement (1, 2, 3, 4, 5), and each number means the following:

- 1 means "I **never or almost never** do this."
- 2 means "I do this **only occasionally.**
- 3 means "I **sometimes** do this."
- 4 means "I **usually** do this."
- 5 means "I **always** or **almost always** do this."

No.	Type	Strategy	Score
1	Glob	I have a purpose in mind when I read.	
2	Sup	I take notes while reading to help me understand what I read.	
3	Sup	I summarize what I read to reflect on important information in the text.	
4	Prob	I try to get back on track when I lose concentration.	
5	Sup	I underline or circle information in the text to help me remember it.	
6	Sup	I use reference materials such as dictionaries to help me understand what I read.	
7	Glob	I use tables, figures, and pictures in text to increase my understanding.	
8	Glob	I use context clues to help me better understand what I am reading.	
9	Sup	I paraphrase (restate ideas in my own words) to better understand what I read.	
10	Prob	I guess the meaning of unknown words by separating different parts of a word.	
11	Glob	I think about what I know to help me understand what I read.	
12	Glob	I preview the text to see what it is about before reading it.	
13	Sup	When text becomes difficult, I read aloud to help me understand what I read.	
14	Prob	I think about whether the content of the text fits my reading purpose.	
15	Prob	I read slowly but carefully to be sure I understand what I am reading.	
16	Sup	I discuss what I read with others to check my understanding	
17	Glob	I skim the text first by noting characteristics like length and organization.	
18	Prob	I adjust my reading speed according to what I am reading.	
19	Glob	I decide what to read closely and what to ignore.	
20	Prob	When text becomes difficult, I pay closer attention to what I am reading.	
21	Prob	I stop from time to time and think about what I am reading.	
22	Prob	I try to picture or visualize information to help remember what I read.	
23	Glob	I use typological aids like boldface and italics to identify key information.	
24	Glob	I critically analyze and evaluate the information presented in the text.	
25	Sup	I go back and forth in the text to find relationship among ideas in it.	
26	Glob	I check my understanding when I come across conflicting information.	
27	Glob	I try to guess what the material is about when I read.	
28	Prob	When text becomes difficult, I reread to increase my understanding.	
29	Sup	I ask myself questions I like to have answered in the text.	
30	Glob	I check to see if my guesses about the text are right or wrong.	