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Comparison of the Efficiency of Reading Comprehension Strategies on Iranian University Students' Comprehension

Knowledge of the strategies used by English as a foreign language (EFL) or second language (ESL) readers can help instructors teach these techniques and thereby enhance their students' reading comprehension. The present study compared three categories of reading comprehension strategies (meta-cognitive, cognitive, and socio-affective) to determine their effects on 31 EFL students' reading comprehension. A standard reading comprehension test taken from the First Certificate in English (FCE) and a questionnaire were used to collect the data. The results of the analysis using Chi-square tests revealed both positive and negative strategies, showing that metacognitive strategies have positive effects on reading comprehension. Pedagogical implications are also discussed.

Since the rise of the mentalist model of language learning in linguistics and cognitive psychology, the dominant approach in language learning and teaching has become a learner-centered one. More attention has been paid to what the learner actually does while involved in the learning task. In other words, the process

of language learning has become as important as its product. As Ellis (1985) put it,

> a complete account of second language acquisition (SLA) involves both showing how the input is shaped to make it learnable (an inter-organism perspective) and how the learner works on the input to turn it into intake (an intra-organism perspective). (p. 163)

So, procedural knowledge that consists of the strategies and procedures employed by a learner to process second language (SL) data for acquisition and use has proved to be an important part of the second language (L2) knowledge. Many studies have been conducted on different factors that affect learning to read (Adamson, 1991; Block, 1992; Carrell et al., 1989; Doyle & Garland, 2001; Grabe & Stroller, 2002; Li & Munby, 1996; Margolis, 2001; Salataci & Akyel, 2002; Setiadi et al., 2005; Wa-Mbaleka, 2002).

To map the strategies used by SL or foreign language readers, researchers have tried to develop different taxonomies (Anderson, 1991; Block, 1986; Pritchard, 1990). As an example, Block (1986) categorized these strategies into general comprehension, considered as top-down or teacher-centered strategies, and local linguistic strategies, which could be regarded as bottom-up or text-centered strategies. In an attempt to find the roles of the L1 and L2 in the reading comprehension of L2 readers, Upton (1997) used the same taxonomies to find out the strategies his students used.

Following Block's taxonomy (1986) and based on O'Malley and Chamot's framework (1990), Fotovatian (2006) and Marzban (2006) found 24 strategies used by Iranian students and categorized these strategies as cognitive, metacognitive, and socio-affective strategies, as noted by Block and O'Malley and Chamot. According to them, metacognitive strategies are "higher order executive skills that may entail planning for, monitoring, or evaluating the success of a learning activity . . . cognitive strategies operate directly on incoming information, manipulating it in ways that enhance learning" (O'Malley & Chamot, 1990). Similar definitions have been given by other researchers in this field (Salataci & Akyel, 2002; Yin & Agnes, 2001). This category consists of some strategies like

1. Selective or directed attention: focusing on special aspects of learning task, planning to listen for key-words or phrases.
2. Planning: arranging in advance for the organization of either written or spoken discourse.
3. Monitoring: reviewing and attention to a task, comprehension of information that should be remembered, or production while it is occurring.
4. Evaluating: checking comprehension after completion of a

receptive language activity, or evaluating language production after it has taken place (p. 3).

Cognitive strategies involve interacting with the material to be learned, manipulating the material mentally or physically or applying a specific technique to a learning task (O'Malley & Chamot, 1990). Prokop (1989) defined cognitive strategy as related to the "task at hand and the manner in which linguistic information is processed" (p. 17). This category includes strategies like

1. Rehearsing: repeating the names of items or objects to be remembered.
2. Organizing: grouping and classifying words, terminology, or concepts according to their semantic or syntactic attributes.
3. Inferring: using the information in the text to guess the meaning of new linguistic items, predicting outcomes or complete missing parts.
4. Summarizing: intermittently synthesizing what one has read to ensure that information has been retained.
5. Deducing: applying rules to the understanding of language.
6. Imaging: using visual images (either general or actual) to understand and remember new verbal information.
7. Transferring or inducing: using known linguistic information to facilitate a new learning task.
8. Elaborating: linking ideas contained in new information, or integrating new ideas with old information.

Socio-affective strategies represent a broad group that involves either interaction with another person or ideational control over affection. They involve interacting with another person to assist learning or using affective control to assist a learning task (O'Malley and Chamot, 1990). This category consists of strategies like

1. Cooperation: working with peers to solve a problem, pool information, check notes, or get feedback on a learning activity.
2. Questions for clarification: eliciting additional explanation, rephrasing or using examples from a teacher or peer.
3. Self-talk: using mental redirection of thinking activity to reduce anxiety about a task or to assure oneself that a learning process has taken place (p. 46).

Several other studies have been conducted on poor and good readers' use of these strategies, demonstrating that good readers use more metacognitive strategies as they read (Dhieb-Henia, 2003; Swanson & De La

Paz, 1998; Zhang, 2001). In the EFL context, in an attempt to examine the metacognitive knowledge and the use of such strategies by good and poor readers, Yin and Agnes (2001) found that good readers were more aware of metacognitive knowledge and used metacognitive strategies more frequently than poor readers.

As Rubin (1975) pointed out, "Our knowledge of what successful learners do—strategies they employ—can help us teach those techniques to weaker students and consequently enhance their learning " (p. 11). In this regard, Zhang (2001) stated that if strategies are understood as learners' conscious efforts toward language improvement or comprehension, then there is a need to address reading with regard to L2 readers' metacognitive knowledge and to conceptualize their reading processes for meaning making in order that L2 readers' successful and effective reading strategies can be elicited and imparted to less successful readers. In his study conducted on EFL learners' metacognitive knowledge of reading strategy use at two different universities in China, he found 12 types of strategies about which the readers were metacognitively aware. According to him, there was a difference between good and poor readers, with the high scorers being more strongly aware of their use of strategies for processing L2 written input (80% vs. 20%). In this regard, Schmidt (1993) pointed out that research into the use of strategies provides a means of language learners' awareness about language learning. For a review of the strategies used by L2 learners, refer to Zhang (2001).

The present study focused on reading comprehension strategies as a branch of learning strategies and tried to compare the strategies that have been found to be the most helpful ones. Moreover, there are some strategies that not only do not help readers, but also cause some problems in the foregoing paths of understanding, instead. Obviously, it would be beneficial to familiarize readers with various types of reading comprehension strategies and to instruct them on how to use positive strategies and avoid negative ones. By knowing the strategies predictive of language or, more particularly, reading achievement and the behaviors of good language learners, pedagogical guidelines and implications can be provided.

Materials and Methods

This experimental study compared the effects of using reading comprehension strategies (cognitive, metacognitive, and socio-affective) as found by Fotovatian (2006) on the students' comprehension. In this way the most beneficial as well as those that hinder readers can be identified, and the most helpful category of strategies can be introduced. The participants in this study consisted of 31 university students whose first

language is Farsi and who use the same type of processes for developing reading comprehension skills as other EFL students, even those who speak Chinese, although, unlike Chinese, Farsi is an alphabetic language using Arabic letters. The students in this study were all enrolled in Reading Comprehension II at the English Department of Shiraz University. Based on the students' grades in their Reading Comprehension I course (total = 40% midterm exam's grade + 60% final exam's grade), they were categorized into three groups: good readers (A: scoring 16 out of 20 and higher), mid-level readers (scoring 14-16 out of 20), and poor readers (B: scoring 14 out of 20 and lower). Since the study aimed to compare good readers with poor ones in their strategic habits, the mid-level group was excluded from the study and the other two groups' results were compared. During the course, the students got familiar with different reading comprehension strategies, focusing on the three categories under the study and how to apply them consciously. To collect the data, after a period of three months of instruction, a reading version of the First Certificate in English (FCE) was given to the students, immediately followed by a questionnaire including the list of 24 strategies categorized into metacognitive, cognitive, and socio-affective ones that were found by Fotovatian (2006) based on Block (1986) and O'Malley and Chamot's (1990) categorization and framework (Table 1). They were asked to put 2 stars in front of those they frequently used, 1 by those occasionally used, and nothing beside those they had never heard of or used. Before doing this, they were instructed to reply honestly and not to focus on what they thought their teachers wanted them to know. In the samples, sex and age factors were not controlled, but all the participants were Iranian students in the same course with similar proficiency levels.

After a careful analysis of the data, a table was prepared to see which categories of strategies were most frequently used by each group, and also which group used a larger number and percentage of strategies. According to the participants' grades and their choices of strategies, a table was provided to list the strategies from the most helpful or positive strategies to the least helpful or negative ones. Chi-square was used to check the significance of the differences in the use of each strategy and each category of strategies between the two groups.

Results
The 24 strategies observed in the previous research were presented to the two groups of participants. Table 1 displays the proportion of each group choosing each category, showing that the good readers used a higher percentage of metacognitive strategies, although both groups did not differ much in the use of cognitive and socio-affective strategies.

Table 2 confirms this, displaying the percentage of each group using each category. None of the strategies in each category overlapped. The categories in which each strategy falls are shown in front of the strategies displayed in Table 1 (metacognitive = MC, cognitive = C, socio-affective = SA).

Table 1
Percentage of Participants in Each Group Using Each Strategy

C	Strategy name	Group A	Group B
1.	Anticipating (MC)	73%	20%
2.	Monitoring comprehension (MC)	64%	20%
3.	Evaluating comprehension (MC)	73%	20%
4.	Using directing attention (MC)	82%	20%
5.	Recognizing text structure (MC)	82%	20%
6.	Rereading (C)	82%	100%
7.	Note-taking (C)	91%	40%
8.	Question-making in the text (C)	64%	60%
9.	Elaborating (C)	100%	40%
10.	Deducing (C)	73%	40%
11.	Inducing (C)	27%	60%
12.	Looking up all the new words (C)	45%	80%
13.	Inferring or guessing some new words (C)	55%	20%
14.	Paying attention to single words (C)	1%	60%
15.	Questioning for clarification (SA)	73%	100%
16.	Translating (C)	27%	80%
17.	Summarizing (C)	81%	60%
18.	Simplifying (C)	27%	100%
19.	Imaging (C)	81%	20%
20.	Explaining the text to self or others (SA)	63%	40%
21.	Exemplifying (C)	63%	40%
22.	Showing emotion about the text (SA)	55%	40%
23.	Commenting on the text (SA)	64%	40%
24.	Comparing attitudes (SA)	55%	20%

   Note. MC = metacognitive strategies; C = cognitive strategies; SA = socio-affective strategies

   The percentage of participants in each group using each category of strategies is illustrated in Table 2.

Table 2
Percentage of Participants in Each Group Using Each Category of Strategies

C	Category of strategies	Group A	Group B
1.	Metacognitive strategies	73%	20%
2.	Cognitive strategies	61%	58%
3.	Socio-affective strategies	50%	33%
4.	Total strategies	48%	63%

Table 3 shows the hierarchy of strategies used by participants in each group.

Table 3
The Hierarchy of Strategies Used by Participants in Groups A and B

C	Group A	Group B
1.	Elaborating	Rereading
2.	Note-taking	Questioning for clarification
3.	Directing attention	Simplifying
4.	Recognizing text structure	Looking up all the new words
5.	Rereading	Translating
6.	Summarizing	Question making in the text
7.	Imaging	Inducing
8.	Anticipating	Paying attention to single words
9.	Evaluating comprehension	Summarizing
10.	Deducing	Note-taking
11.	Questioning for clarification	Elaborating
12.	Monitoring comprehension	Deducing
13.	Question making in the text	Explaining the text to self or others
14.	Explaining the text to self or others	Exemplifying
15.	Exemplifying	Showing emotion about the text
16.	Commenting on the text	Commenting on the text
17.	Inferring or guessing some words	Anticipating
18.	Showing emotion about the text	Monitoring comprehension
19.	Comparing attitudes	Evaluating comprehension
20.	Looking up all the new words	Directing attention
21.	Inducing	Recognizing text structure

22.	Simplifying	Inferring or guessing some words
23.	Translating	Imaging
24.	Paying attention to single words	Comparing attitudes

As shown in Table 4, the Chi-square test used revealed the significance of the differences between the use of strategies in the two groups (directed attention, p = 0.03; recognizing text structure, p = 0.03; elaborating, p = 0.01; translating, p = 0.01; simplifying, p = 0.009). The results displayed in Table 4 indicated that "elaboration" can be regarded as the most positive strategy used by the high-level group and also that there is a significant difference in the use of this strategy between the good and poor readers. In addition to "elaboration," the other strategies used by the good readers that proved to be significantly different from those of the poor readers were "directed attention" and "recognizing text structure." Other strategies like "imagery (imaging)," "note-taking," "anticipating," and "evaluating comprehension" had also a reasonably positive, although insignificant, Chi-square value. On the other hand, "simplifing" was mostly used by the low-level group and the difference was statistically significant. Therefore, it can be regarded as the most negative strategy. Strategies like "paying attention to single words" and "translating" had a fairly large negative Chi-square value, showing a significant difference between the levels. Moreover, some strategies such as "interpret the text" and "comment on behavior or process" were to some extent unknown to some participants.

Table 4
The Chi-square Indexes Showing the Significance of the Differences Between Groups A and B in Using Each Strategy

C	Strategy name	p value
1.	Anticipating	0.1
2.	Monitoring comprehension	0.3
3.	Evaluating comprehension	0.1
4.	Directing attention	.03*
5.	Recognizing text structure	.03*
6.	Rereading	0.4
7.	Note-taking	0.63
8.	Question making in the text	0.6
9.	Elaborating	.01*
10.	Deducing	0.3

11.	Inducing	0.2
12.	Looking up all the new words	0.3
13.	Inferring and guessing some words	0.3
14.	Paying attention to single words	.062
15.	Questioning for clarification	0.29
16.	Translating	.01*
17.	Summarizing	0.6
18.	Simplifying	.009**
19.	Imaging	0.06
20.	Explaining the text to self or others	0.43
21.	Exemplifying	0.43
22.	Showing emotion about the text	0.5
23.	Commenting on the text	0.4
24.	Comparing attitudes	0.23

*P < .05, **p < .01

In addition, as shown in Table 5, the results of the Chi-square test revealed a significant difference in the use of metacognitive strategies (p = 0.001) but no significant differences in the use of cognitive strategies between the good and poor readers (p = 0.6). As to the socio-affective strategies, although both groups did not differ much (P = 50% vs. 33%), the difference between them was statistically significant (p = 0.01). To put it more systematically, cognitive and socio-affective strategies were used more productively by the participants, while metacognitive strategies were the least known category of strategies to the readers. Poor readers were the ones who were mostly unfamiliar with this category.

Table 5
The Chi-square Indexes Showing the Significance of the Differences Between Group A and B in Using Each Category of Strategies

C	Strategy category	p value
1.	Metacognitive strategies	0.001
2.	Cognitive strategies	0.6
3.	Socio-affective strategies	0.01

With reference to the percentage of the use of each strategy by each group and the Chi-square charts, the most helpful strategies used by readers in their encounter with the text are listed below in a hierarchical order.

Table 6
The Most to the Least Helpful Strategies

1.	Elaborating
2.	Rereading
3.	Note-taking
4.	Recognizing text structure
5.	Directing attention
6.	Summarizing
7.	Imaging
8.	Deducing
9.	Anticipating
10.	Evaluating comprehension
11.	Questioning for clarification
12.	Monitoring comprehension
13.	Question making in the text
14.	Commenting on the text
15.	Explaining the text to self or others
16.	Exemplifying
17.	Inferring or guessing
18.	Showing emotion about the text
19.	Comparing attitudes
20.	Looking up all the words
21.	Simplifying
22.	Translating
23.	Inducing
24.	Paying attention to single words

Discussion

There was an attempt in this study to compare good and poor readers in their use of three categories of reading comprehension strategies (i.e., cognitive, metacognitive, and socio-affective) and thereby identify the most and least helpful strategies to be used by readers in an EFL context. The results of the Chi-square values in Table 4 showed that elaboration was significantly used by group A. Also, the use of two strategies—recognizing text structure and directed attention—had significant correlation with the level and therefore the success of the readers. Success in reading generally refers to a complete grasp of meaning while reading a text in which a dynamic and increasing appreciation of interrelationships in the text is required (Phakiti, 2003). Based on the information in Table 1, group A mostly used elaboration, note-taking, directed attention, recog-

nizing text structure, rereading, summarization, imagery, anticipation, evaluating comprehension, and deduction. Therefore, the students in group A were in general more strategy users, and metacognitive strategies were mostly used by this group.

On the other hand, some strategies in this study were reported to function negatively in terms of efficiency but not effectiveness. The problem with such strategies as simplification, translation, or paying attention to single words may lie in their time-consuming nature. As shown in Table 1, simplification and translation were the strategies significantly used by the low-level group. This group used strategies like rereading, questioning for clarification, simplification, looking up all words, translation, question making in the text, induction, paying attention to single words, summarization, and note-taking. The results of the study conducted by Upton (1997) are in the same line with those of our study. The poor readers relied more on local, text-based or bottom-up strategies in order to understand the text, while good readers relied on both types of strategies.

The high-level group used reading comprehension strategies more frequently than the low group. As displayed in Table 2, metacognitive strategies were used by group A most of all. These findings are supported by previous studies (Baker & Brown, 1984; Garner, 1987; Swanson & De La Paz, 1998; Zhang, 2000). The difference revealed in Zhang's study (2001) between poor and good readers is in the same line with the results of this study in that good readers are more familiar with the demands of reading tasks and use more efficient strategies in the comprehension of the text. According to him, the more command of metacognitive knowledge, the more efficient the comprehension of what is read. Also, in Setiadi, et al.'s study (2005), metacognitive strategies constituted 100% of the variance contributed by the language learning strategies. They concluded that metacognitive strategies function as a "powerful tool" in learning English; metacognitive strategies direct the execution of learning processes and are superior to other strategies under the study in contributing to the increase in language performance.

The collected data in the present study led to the following conclusions:

1. Skillful readers made use of a larger number of various reading comprehension strategies, while poor readers seldom used strategies during reading the text.

2. Skillful readers used metacognitive strategies more frequently while poor readers were to some extent unfamiliar with the correct use of metacognitive strategies, the same conclusion as reached by Salataci and Akyel (2002) in which non-proficient L2 readers either did not possess knowledge

about these strategies or mainly engaged in bottom-up ones.

3. Skillful readers had a better knowledge of different reading comprehension strategies, while some strategies were unknown to poor readers.

These findings accord with those of Zhang (2001) in which the low scorers used such strategies as decoding the message, either through looking for lexical precision or translation more frequently for "meaning-making." However, the high scorers were "meaning getters" and knew better which strategies led to more effective comprehension. In other words, they used global strategies such as skimming, guessing through references, and anticipating.

As to the non-significant difference seen in the use of cognitive strategies between the good and poor readers, it seems that in these types of strategies, the students did not monitor themselves, which is one of the metacognitive strategies that entails more cognitive processing and is more challenging to use to get the meaning of the text. These strategies are seemingly less demanding than metacognitive ones; they are used by a higher percentage of students, including those with a low level. Both groups did not differ much in their use of socio-affective strategies (50% vs. 33%), but the difference was statistically significant.

As to the efficiency of strategies, the results indicated that not all the reading comprehension strategies are helpful for the readers. Some strategies decreased the comprehension rate and the speed of the readers while reading. For example, paying attention to single words, translation, and looking up all the new words can be regarded as negative strategies in terms of efficiency. Based on my experience during 20 years of teaching EFL students, it can be said that these strategies lower the readers' speed in an EFL context and take their attention from higher order strategies. On the other hand, there were some strategies like elaboration, recognizing text structure, directed attention, imagery, evaluation of comprehension, and note-taking that showed to be very helpful; however, some readers are not able to use them. Piper's research (1994) demonstrated that the subjects at different levels had a model, although limited, of language and strategies for learning. It seems to be a trend similar to that of the subjects of this study.

As posited by many researchers, it seems likely that poor readers' low EFL proficiency hinders them from developing metacognitive strategic knowledge; therefore, there is a need to help them reach a certain level of EFL proficiency (Carrell et al, 1989; Wenden, 1998; Zhang, 1999, 2000, and 2001). Similar to the results of this study, Goh's subjects (1998) preferred strongly to use cognitive strategies that severely constrained their

use of metacognitive strategies. As concluded by Carrell et al. (1989), the combined effect of cognitive and metacognitive strategy instruction is effective in enhancing reading comprehension. In agreement with the ideas in this regard, Marzban (2006) stated that helping learners to become efficient EFL readers requires them to bring all their cognitive and metacognitive strategies into play. Obviously, there is a need for teaching support, adequate time and energy, and a well-organized program for our students in order to help them develop strategies necessary for meaningful reading.

Pedagogical Implications

In the case of our EFL students, reading is the most important skill in their academic or learning context. Some researchers have demonstrated a strong correlation between reading proficiency and academic success (Lawson & Hogben, 1998; Lewis, 2000; Macaro, 2001; Nakatani, 2005; Seo, 2000; Strong et al., 2002). As reported in Dhieb-Henia's study (2003), a traditional approach to reading comprehension fails to equip students with highly developed and positive strategies required for comprehending the text they read. We need to help them become efficient readers and enhance their reading ability. The more our students are exposed to reading material, the sooner we, as teachers, will reach our goals in this regard. They need to be moved from dependency on the teacher to more independent reading. This independence can be achieved by assisting them in being efficient in the use of certain strategies. As suggested by Salataci & Akyel (2002), strategy instruction has a positive effect on students' reading strategy use and reading comprehension in English. In this regard, Dhieb-Henia (2003) has provided quantitative and qualitative evidence about the efficiency of metacognitive strategy training on the way that university students function in their reading. According to Zhang (2001), if researchers could ascertain EFL readers' metacognitive strategic knowledge, it would help teachers make a more informed choice in teaching SL or FL reading.

In our study, the good readers were able to understand and talk about their use of metacognitive reading strategies while the low proficiency ones either did not have these strategies, or even if they had, they could not talk about them. Our teachers need to recognize students' weaknesses and strengths in terms of strategy use, particularly metacognitive ones, and must be able to demonstrate the usefulness and effectiveness of the utilization of such strategies. Moreover, they can try to uncover the strategies used by students (whether they are cognitive, metacognitive, or socio-affective), while reading through thinking aloud, both introspectively and retrospectively, and by using question-

naires. According to Salataci & Akyel (2002), the think aloud method is a good means for assessing students' comprehension processes in order to reveal their weaknesses and strengths. This knowledge can then be used to plan courses that lead to efficient reading. EFL teachers should help the readers be aware of reading processes and provide an opportunity for them to use their reported strategic knowledge in linguistic analysis. In this way, the teachers will be able to enhance their students' reading proficiency. However, until the students reach a threshold of reading proficiency, more specifically, basic reading proficiency, teaching reading strategies will not be helpful. In other words, they need to be able to use lower level strategies such as automatic recognition of words and syntactic structures and parts of speech without directed attention before learning how to use strategies. In fact, our students are used to processing the reading text word for word and usually write the Farsi translation of words between the lines. Such a damaging process hinders them from becoming an efficient EFL reader. Since cognitive, metacognitive, and socio-affective strategies as well as schemata are significant factors in constructing meaning from context, Taguchi et al. (2004) recommended extensive reading programs as well as repeated reading in order to solve the problem of processing the text word for word and develop good reading abilities in readers. Because our EFL students' problems seem to arise from low English proficiency, our teachers should make a balance between both developing the students' English proficiency and teaching efficient strategies.

Notwithstanding the fact that metacognitive strategies observed in the present study could have positive effects on the comprehension of the readers, unfortunately most of them were almost unknown to most readers, so a need can be felt here to introduce these strategies to the readers and teach them the correct ways of applying them. Moreover, socio-affective strategies of when and where to use these strategies can be taught based upon the teacher's or texts' demands. In this, obviously a great burden is placed on the shoulders of reading comprehension teachers to make their students familiar with various types of reading comprehension strategies first, and then to train them to use positive strategies correctly and avoid negative ones. In conclusion, it seems that our EFL teachers in Iran need to include some instructions about reading comprehension strategies in their curriculum, elevate their students' knowledge about them, and recommend that their students use positive strategies and avoid negative ones.

Limitations of the Study
Our study was conducted with only 31 students at the tertiary level.

Further studies are recommended with a larger number of students from different cultural backgrounds to find out if the same strategies lead to success in reading and if the students in other contexts and at different levels use different strategies.

References

Adamson, H. D. (1991). Academic competence. *English for Specific Purposes, 5*, 55-79.

Anderson, N. J. (1991). Individual differences in strategy use in second language reading and testing. *Modern Language Journal, 75*(5)*,* 460-472.

Baker, L., & Brown, A. L. (1984). Cognitive monitoring in reading. In J. Flood (Ed.), *Understanding reading comprehension*. Newark, DE: International Reading Association.

Block, E. (1986). The comprehension strategies of second language readers. *TESOL Quarterly, 20,* 463-491.

Block, E. (1992). See how they read: comprehension monitoring of L1 and L2 readers. *TESOL Quarterly, 26*, 319-343.

Carrell, P. L., Pharis, B. G., & Liberto, J. G. (1989). Metacognitive strategy training for ESL reading. *TESOL Quarterly, 20*, 463-494.

Dhieb-Henia, N. (2003). Evaluating the effectiveness of metacognitive strategy training for reading research articles in an ESP context. *English for Specific Purposes, 22*, 387-417.

Doyle, M. S., & Garland, J. C. (2001). A course to teach cognitive and affective learning strategies to university students. *Guidance and Counseling, 16*(3), 86-91.

Ellis, R. (1985). *Understanding second language acquisition*. New York: Oxford University Press

Fotovatian, S. (2006). *Identification and classification of reading comprehension strategies of Iranian EFL readers*. *P*aper presented at LSP International Conference, Johor, Malaysia.

Garner, R. (1987). *Metacognition and reading comprehension*. Norwood, NJ: Ablex.

Grabe, W., & Stroller, F. L. (2002). *Teaching and researching reading*. London: Pearson Education.

Goh, C. M. (1998). Strategic processing and metacognition in 2nd language listening. *RELC Journal, 29*(2), 173-75.

Lawson, M., & Hogben, D. (1998). Learning and recall of foreign language vocabulary: Effects of a key word strategy for immediate and delayed recall. *Learning and Instruction, 8*, 179-194.

Lewis, J. (2000). *Academic literacy: Reading and strategies*. New York: Houghton.

Li, S., & Munby, H. (1996). Metacognitive strategies in 2nd language academic reading: A qualitative investigation. *English for Specific Purposes, 15*, 199-216.

Macaro, E. (2001). *Learner strategies in second and foreign language classrooms*. London: Continuum.

Margolis, D. P. (2001). Compensation strategies by Korean students. *The PAC Journal, 1*(1), 163-74.

Marzban, A. (2006). *The interdependence between the process and the product of reading in English and Persian*. Paper presented at LSP International Conference, Johor, Malaysia.

Nakatani, Y. (2005). The effects of awareness raising training on oral communicative strategy use. *Modern Language Journal*, *89*, 76-91.

O'Malley, J. M., & Chamot, A. U. (1990). *Language strategies in second language acquisition*. Cambridge: Cambridge University Press.

Phakiti, A. (2003). A closer look at gender and strategy use in L2 reading. *Language Learning*, *53*(4), 649-702.

Piper, A. (1994). Ecologia: The assumptions, expectations and strategies of modern language students working in a self-access learning environment for the first time. *Language Awareness*, *3*(1), 11-27.

Pritchard, R. (1990). The effects of cultural schemata on reading processing strategies. *Reading Research Quarterly*, *25*, 273-295.

Prokop, M. (1989). *Learning strategies for second language users*. London, UK: The Edwin Mellen Press.

Rubin, J. (1975). What the "Good language learner" can teach us. *TESOL Quarterly, 9*(1), 41-51.

Salataci, R., & Akyel, A. (2002). Possible effects of strategy instruction on L1 and L2 reading. *Reading in a Foreign Language*, *14*, 1-17.

Schmidt, R. (1993). Awareness and second language acquisition. *Annual Review of Applied Linguistics, 13*, 273-295.

Seo, K. (2000). An investigation into the effects of revision strategy instruction on L2 secondary school learners. *System*, *28*, 97-113.

Setiadi, A. B., Holliday, L., & Lewis, R. (2005). *A survey of language learning strategies in tertiary EFL in Indonesia*. Retrieved August 6, 2006, from *http://www.aare.ed/au/01pap/won01419.htm*.

Strong, R. W., Silver, H. F., Perini, M. G., & Tuculescu, G. M. (2002). *Reading for academic success, powerful strategies for struggling, average and advanced readers, grades, 7,* 12. New York: Corwin Press.

Swanson, P. N., & De La Paz, S. (1998). Teaching effective comprehension strategies to students with learning and reading disabilities. *Intervention in School and Clinic*, *33*(4), 209-218.

Taguchi, E., Takayasu-Mass, M., & Gorsuch, G. J. (2004). Developing reading fluency in EFL: How assisted reported reading and extensive reading affect fluency development. *Reading in a Foreign Language, 16*(2), 1-23.

Upton, T. A. (1997). First and second language use in reading comprehension strategies of Japanese ESL students. *TESL/TJ Journal*, *3*(1), 1-12.

Wa-Mbaleka, S. (2002). *Socio-cultural factors affecting learning to read*. Unpublished manuscript, Northern Arizona University at Flagstaff.

Wenden, A. L. (1998). *Metacognitive knowledge and language learning*. Unpublished doctoral dissertation, Nanyang University, Singapore.

Yin, W. M., Agnes, Ch. Sh. (2001). *Knowledge and use of metacognitive strate-*

gies. National Institute of Education Singapore. Retrieved July 10, 2006 from *http://www.aare.edu.au/01pap/won 01419*. htm

Zhang, L. J. (1999). Metacognition, cognition and reading in a second language. *React*, *1*, 21-27.

Zhang, L. J. (2000). Metacognition in L2 literacy acquisition: The case of ten Chinese tertiary students learning to read EFL. In A. Brown (Ed.), *Developing Multiliteracies,* p. 45-56. Singapore: National Institute of Education.

Zhang, L. J. (2001). Awareness in reading: EFL students' metacognitive knowledge of reading strategies in an acquisition-poor environment. *Language Awareness, 10*(4), 268-288.

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