

CAN ESL TEACHERS TEACH READING METACOGNITIVE STRATEGIES?

by

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DEDICATION

I dedicate this humble work to:

- My country of Morocco;
- My dear parents who taught me how to cherish learning and education. Their belief that education is a priority of all priorities is part of my every-day life;
- All the teachers who made my journey of learning in education pleasurable;
- To my students in Al-Maarifa High School in Agadir, Morocco, who helped me discover the real meaning of the classroom;
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AUTOBIOGRAPHICAL SKETCH OF AUTHOR

Adil was a teacher of English as a Foreign Language (EFL) in a public high school (2005-10). As a young educator, he has served in and contributed to many events by Moroccan Center for Civic Education, Amnesty International, Moroccan Social Camps, Excell Foundation, Moroccan Association of Teachers of English, and Idaho Human Rights Education Center. He also taught Access, a US Department of State's English language program for disadvantaged students, in Southern Morocco. Adil's work has been considered as exemplary and inspiring, given the professionalism, enthusiasm, and efficiency displayed in any initiative he takes.

Adil was the first teacher to introduce the Project Citizen curriculum to Moroccan high schools in 2005 and the Civic Education Partnership Initiative program (CEPI) in 2009. As the regional Program Coordinator for the Moroccan Center for Civic Education, Adil trained more than 100 middle and high school teachers and helped coach over 1400 students throughout Southern Morocco. In several conferences (Canada, Egypt, Morocco, United States), Adil has presented on Project Citizen, project work, leadership, civic education development in school, and English Language Teaching.

He is the co-author of an article entitled *Student Attitudes Towards and Impressions of Project Citizen* (under review) and is currently involved with two projects/articles on preservice teachers' information literacy, and promoting cultural understanding between the West and Arab/Muslim worlds. The Arbiter newspaper has

published four articles that Adil wrote on his culture and international student involvement.

On another level, Adil also holds the positions of President of Boise State's International Students Association and Vice-President of Teacher Education Association at Boise State. Awards include Boise State's 2011 Outstanding Student Volunteer of the Year, Boise State's 2012 Award of Excellence, and 2012-13 Who's Who among Executives, Professionals, and Entrepreneurs recognition.

ABSTRACT

Can ESL Teachers Teach Reading Metacognitive Strategies?

By Adil Bentahar

Metacognitive knowledge has been linked to use of metacognitive strategies and effectiveness in reading (e.g., Flavell, 1979). In the present research, I evaluated whether teaching three metacognitive strategies (planning, monitoring, and evaluating) would (a) improve English as a Second Language (ESL) students' metacognitive knowledge, which in turn would (b) improve their comprehension. Eight non-English speaking students completed the Metacognitive Awareness of Reading Strategy Inventory (MARSI) (Mokhtari & Reichard, 2002) and a reading test at the beginning of a reading-writing course and again at the end of the course. The results revealed an increase from pretest to posttest in all three areas of metacognitive knowledge: global strategies, problem-solving strategies, and support strategies with statistically significant differences in each reading scale. Comprehension test performance revealed mixed results. Whereas performance on true/false and word reference tests did not change significantly from pretest to posttest, performance on wh- questions improved across time.

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CHAPTER ONE: GENERAL INTRODUCTION

Need for the Study

The schools and states have higher and better defined expectations for students today than in the past. In addition to being academically strong, students are expected to possess sufficient skills that enable them to cope with any learning situations, which include the four language cognitive tasks of writing, speaking, listening, and reading. The trend is now to encourage students to become independent over their own learning rather than relying solely, and blindly, on what the teacher provides the students in class.

The importance of self-regulated learners suggests the need to teach, and equip students with, useful cognitive and metacognitive strategies. In fact, developing metacognition and self-regulated learning strategies in the classroom has been shown to be very effective and contributory to students' overall success (Kelly, Moore, & Tuck, 2001; Rosenshine & Meister, 1992; Palinscar & Brown, 1984). My interest in metacognition began with an awareness of the difficulties facing international students, who have basic reading skills but often struggle with reading comprehension (Center for Adult English Language Acquisition, 2000). In the present study, I evaluated whether teachers could teach international students metacognitive strategies for reading and whether improving knowledge of these strategies would improve reading comprehension.

Background

The area of metacognition has aroused the curiosity of many researchers for more than three decades (Dunlosky & Metcalfe, 2009; de Bruin, Thiede, Camp, & Redford, 2011). There are several reasons why I chose to work on metacognition and reading. The concept of metacognition is not very common in Moroccan classrooms or universities; therefore, as a teacher of English as a Foreign Language (EFL), working on this area will help me widen my knowledge about reading strategy instruction. In fact, broad and deep as it is, the psychology of learning offers immense opportunities for one to probe into the realm of metacognition; it also opens new horizons for the development of deeper insights into the world of education and psychology in general, and reading in particular.

I wanted to continue the work I started through a senior project on metacognitive strategies in writing. This time I wanted to work with international students struggling to improve their reading comprehension skills. For me as an international student studying in the United States, coping with reading tasks and ensuring good comprehension of academic readings is critical to success in all areas.

Significance of the Study

Undertaking this study, I wished to investigate whether teaching reading metacognitive strategies to English as a Second Language (ESL) students affects their metacognitive knowledge and reading comprehension. When it comes to conducting research, it is usually the researcher, not the instructor, who teaches the strategies being examined and runs the study. Consequently, examining this area may be a novel contribution to knowledge in second language reading instruction and metacognitive

strategies. Specifically, this study targets international students who are studying in the United States and whose learned reading strategies were probably first developed in their first language. In light of the aforementioned statements, two hypotheses may be formulated as follows.

Statement of the Hypotheses

The goal of this research is to evaluate whether:

1. Teaching ESL learners planning, monitoring, and evaluating increases their metacognitive knowledge (as measured by the Metacognitive Awareness of Reading Strategy Inventory, Mokhtari & Reichard, 2002), and
2. Teaching ESL learners planning, monitoring, and evaluating increases their metacognitive knowledge, which in turn improves their reading comprehension.

However, both hypotheses might be rejected for the following reasons. The first may be disconfirmed because (a) in the present study an instructor, not the researcher, will teach the three metacognitive strategies. He or she might lack the depth of knowledge about the metacognitive strategies to effectively teach them to students, or (b) the students, who are successful adult learners, may already know these strategies. Concerning the second hypothesis, although students increase their knowledge of the metacognitive strategies, this increased knowledge may not necessarily lead to improved reading comprehension, because learning to effectively implement these strategies may take a considerable amount of time (Pressley, Beard El-Dinary, & Brown, 1992).

Defining Key Terms

- **Comprehension.** The connection of ideas contained in a text and a reader's prior knowledge (Kintsch, 1998).
- **EFL.** English as a Foreign Language
- **ESL.** English as a Second Language
- **Learning Strategy.** A systematic approach to completing a task. More specifically, it calls for organizing and using a particular set of skills for learning content and accomplishing tasks efficiently in academic and nonacademic settings (Shumaker & Deshler, 1992).
- **Metacognition.** "Awareness and monitoring processes described as 'the knowledge of readers' cognition about reading and self-control mechanism'" (Mokhtari & Reichard, 2002, p.249).
- **Reading Strategy.** "[T]he intentional application of a cognitive routine by a reader before, during, or after reading a text" (Shanahan et al., 2010, p. 10).
- **Scaffolds.** Forms of support provided by the teacher [or another student] to help students bridge the gap between their current abilities and the intended goal (Rosenshine & Meister, 1992, p. 26).

CHAPTER TWO: REVIEW OF LITERATURE

Chapter Two begins with reviewing common reading strategies and approaches to the teaching of strategies. The subsequent section highlights the term metacognition as to definition and components. Review of Literature describes three suggested metacognitive strategies: planning, monitoring, and evaluating, which are the focus of the present study. Other issues related to students' age and metacognition as well as ESL learners are elucidated too.

Need for Teaching Reading Strategies

Reading designates an “interactive process between a reader and a text which leads to automaticity (or reading fluency)” (Alyousef, 2005, p. 143). It is a skill deemed necessary for success in life. It is also considered as a gateway to developing basic knowledge, because it is through reading, among other learning gateways, that we learn about other cultures and gain insights into new fields that were previously unfamiliar (Combs, 1987). Despite the importance of developing strong reading skills, there is much evidence suggesting many students are having difficulties coping with understanding texts (American College Testing, ACT, 2006).

Many learners undergo anxiety and discomfort while reading, because in addition to other impeding factors such as low repertoire of vocabulary and insufficient reading skills, the struggles and thoughts that cross the readers' minds are all hidden from an outside observer (Block, 1986). Reading tends to be such an exacting task that many

students struggle with making sense of a text. For example, in addition to engaging in basic reading behaviors such as word identification, active reading calls for on-going comprehension monitoring and regulation (Alexander & Jetton, 2000). Indeed, finding ways to help students learn effective reading strategies is critically important, and resorting to reading metacognitive strategies, for example, makes learners more active and autonomous over their own learning (Camahalan, 2006).

Literacy issues in American high schools have been a major concern that is frequently reported in literature (ACT, 2006; Kamil, 2003; Snow & Biancarosa, 2003). Research findings about students' performance in school is anything but satisfactory. The conclusions made by the ACT (2006) are even alarming, when for example:

- Only about half of our nation's ACT-tested high school students are ready for college-level reading
 - More students are on track to being ready for college-level reading in eighth and tenth grade than are actually ready by the time they reach twelfth grade
 - The percentage of students who are ready for college-level reading is substantially smaller in some groups
 - Student readiness for college-level reading is at its lowest point in more than a decade
 - State standards in high school reading are insufficient—or nonexistent
- (pp. 1-4, 7-8).

According to Kamil (2003), students lack the literacy skills that help them keep up with school assignments and curriculum. Having inadequate reading skills is one of the most frequently cited factors of the increasing rate of school dropout (ACT, 2006).

Poor readers struggle to learn from courses that require large amounts of reading and are therefore habitually blocked from taking more academically challenging courses (Au, 2000).

In fact, while the importance of possessing sufficient reading skills is a requisite component for excellence in college and the workplace (ACT, 2006), low literacy levels still often hamper student mastery of other subjects (Alliance for Excellent Education, 2002). Other facts are even more appalling. While around six million American high school students are reading below grade level (Alliance for Excellent Education, 2002), the number of high school dropouts exceeds 3,000 students on a daily basis (Alliance for Excellent Education, 2003). Students' poor comprehension in reading has several manifestations:

- Failure to understand key words
- Failure to understand key sentences
- Failure to understand how sentences relate to one another
- Failure to understand how the information fits together in a meaningful way (organization)
- Failure to maintain interest or concentration (Parker, Hasbrouck, & Denton, 2002, p. 45).

These findings made it incumbent on the ACT to recommend the use of targeted interventions that could help improve the reading level of students who are lagging behind in their reading skills and strategy use (ACT, 2006; Shanahan et al., 2010).

Given the importance of reading as a skill for a lifetime of learning, it is not surprising that much research has been dedicated to finding ways to effectively teach reading (ACT,

2006). One successful approach to teaching reading focuses on teaching strategies for reading. For instance, Cantrell, Almasi, Carter, Rintamaa, and Madden (2010) designed the Learning Strategies Curriculum (LSC), which aimed to help students develop their abilities of using multiple strategies flexibly. This successful program relies on the development of cognitive strategies, which are procedures that guide students in their attempt to complete less-structured tasks such as reading comprehension and writing (Rosenshine, Meister, & Chapman, 1996).

The significance of reading strategies has been stressed in literature given their positive contribution to the performance of struggling readers. Shanahan et al. (2010) noted that reading comprehension strategies help readers enhance their understanding, overcome difficulties in comprehending text, and compensate for weak or incomplete knowledge related to a text. Students who use cognitive strategies to cope with comprehension challenges become more motivated to read (Lapp, Fisher, & Grant, 2008).

Essential Requirements for Reading Strategy Instruction

Shanahan et al. (2010) outlined a number of strategies that address a range of reading skills, including fundamental building blocks of reading (e.g., decoding skills). The ultimate focus of my research is on improving deep comprehension; therefore, it is important to understand how reading researchers conceptualize comprehension. I will begin by describing a widely cited model of reading comprehension—the Construction-Integration Model of Comprehension (Kintsch, 1998).

The Construction-Integration Model of Comprehension

According to the construction-integration model of comprehension (Kintsch, 1998), readers construct meaning of the text they read at many levels of representation: a lexical or surface level, a text-base level, and a situation model level. At the lexical level, readers represent the surface features of the text and construct meaning while encoding the words and phrases that appear in the text. The construction of text-base level of understanding is usually concomitant with the parsing of the surface text into propositions and the formation of links between text propositions based on argument. The profound understanding of the text is created at the third level: the level of the situation model. At this level, text information is linked to the reader's existing knowledge for the purpose of producing implications and inferences from the written script. According to McNamara, Kintsch, Songer, and Kintsch (1996), it is the readers' situation model that determines their performance on comprehension tests.

In addition to content and amount of knowledge that students gain in school, a number of skills and strategies are also vital for students to cope with the requirements for the job market and everyday life, including college assignments. Mastery of reading strategies is of paramount importance, yet the ability to cope with reading tasks using these strategies is incomplete in the absence of other competencies and related knowledge, which Shanahan et al. (2010) described as follows:

Word-Level Skills

These skills facilitate students' identifying, or decoding, words with accuracy and fluency. The area of instruction at this level consists of phonology (phonemic awareness), strategies for word analysis, and practice for increasing fluency in reading.

Vocabulary Knowledge and Oral Language Skills

These allow for readers' understanding of word meaning and connected text. During instruction, emphasis is on strategies that are designed to build readers' vocabulary as well as activities meant for strengthening their listening comprehension.

Knowledge and Abilities Required Specifically to Comprehend Text

These are a two-fold requirement. Students should be familiarized with the different ways of text structure and enabled to use an array of cognitive strategies.

Thinking and Reasoning Skills

As such, these are expected to help readers make inferences. The importance of these skills becomes more apparent as the text becomes more and more complex. Thinking and reasoning skills are also called upon when learners are faced with content that needs thoughtful analysis.

Motivation to Understand and Work towards Academic Goals

This helps students be more focused and deliberate in applying the learned strategies. Understanding complex text structures calls for active engagement, which is the result of students' motivation.

After describing the requirements for an effective instruction of reading strategies, the next section depicts three approaches to teaching reading strategies. It should be mentioned at this point that highlighting these strategies stands as an essential component for understanding how metacognitive strategies operate in reading. That is, metacognitive strategies, which will be described after this section, function on the basis of other reading cognitive strategies such as those described below.

Review of Reading Strategies

Although the focus of the present study is metacognitive strategies, it is important to review reading cognitive strategies because reading comprehension requires mastering a repertoire of cognitive strategies (Shanahan et al., 2010). According to Jitendra and Gajria (2011), cognitive strategies ameliorate numerous comprehension skills. Large numbers of reading strategies aim to improve reading. In this section, I will review several approaches commonly used to improve reading comprehension.

The SQ3R Reading Strategies Model

In *Independence in Reading*, Holdaway (1980) highlighted the SQ3R strategy approach. SQ3R stands for: Survey, Question, Read, Recite, and Review. These five strategies contain other sub-strategies such as reading the title and any graphics, posing questions, remembering facts, restating the main ideas, and reading the text while still recalling those questions. Tadlock (1978) looked briefly at what each of these strategies entails.

Survey. Surveying involves previewing the text. The reader skims through the text, reading chapter headings, heading within sections, and reading summaries contained

in the text. This strategy prepares the reader's processing system for the material to be read. The premise is that when learners' information processing is injected with new information without forewarning, effectiveness is not ensured. By contrast, the processing system will function much more efficiently if it already knows what to expect.

Question. The strategy of questioning is a means of assessing what Tadlock (1978) calls uncertainty, that is what the reader does not know at that point. Generating questions enables the readers' information processing system to connect the newly learned information with their background or prior knowledge.

Read. Being the most important component of the SQ3R, the act of reading helps select what bits of information in the text match the gaps that the reader has. Tadlock pointed out that the more actively involved readers are, the more information they obtain from the print or text.

Recite. This strategy tends to be the most time-consuming. The importance of recitation lies in its dependence on memory. To put it differently, the process of storing bits of information in readers' memory causes them to slow down the reading pace.

Review. The final stage involves reviewing the main points of the text. The review component of the SQ3R approach helps readers to interfere with the forgetting process to ensure complete retention of that information.

The processes involved in the SQ3R help readers make connections between their prior knowledge and the information contained in the text. Thus, this approach to reading helps readers develop a more elaborate situation model for a text.

Reciprocal Teaching Approach

Palinscar and Brown (1984) developed reciprocal teaching to help students learn the strategies used by good readers. Reciprocal teaching relies on instruction that is cooperative by nature, and includes modeling, role playing, and feedback in metacognitive self-monitoring and evaluating strategies (Brown, Campione, & Day, 1981).

Palinscar and Brown (1984) referred to Brown and Palinscar's (1982) pilot study, which shows an instance of reciprocal teaching instruction. In that pilot study, the instructor and students were leading a dialogue on sections of a text. In parallel with reciprocal questioning, the instructor and students took turns making predictions and summaries, thereby clarifying any complex or misleading parts of the text. The teacher had previously modeled the main strategies of clarifying, summarizing, predicting, and questioning. Thus, the students were guided to contribute to the running of the activity in the way they could. To ensure and maximize the value of reciprocal teaching strategies in reading, Palinscar and Brown (1984) recommended choosing heterogeneous groupings in terms of age and reading ability, so that the least able students (struggling readers) learn from the modeling, scaffolding, and simulated behaviors (Kelly et al., 2001).

One study provided ample evidence of the positive impact of reciprocal teaching strategies in the classroom on struggling readers' comprehension (Kelly et al., 2001). It appears that when students learn how to use reading strategies, they become able to associate the learned material with their existing knowledge. Following the construction-integration situation level, these readers would be linking text information with what they already know about the topic and task, which in turn helps make related inferences.

Text Enhancement Strategies

Jitendra and Gajria (2011) highlighted what they called Text Enhancement Strategies. These consist of strategies designed to help struggling readers, including learners with learning disabilities (LD), to improve their comprehension of texts and enhance their skills. Examples of these strategies are described below.

Graphic Organizers. One of the major features of graphic organizers is that their design could be used by students to represent different patterns of text structure. Graphic organizers make it possible for students to better learn by visually representing and organizing key concepts (Jitendra & Gajria, 2011). The rationale behind these visual representations or graphic displays is that they also help students connect the newly learned information with their background knowledge or existing information.

Concept Mapping/Story Mapping. Concept or story mapping involves constructing a visual map of the ideas contained in a text. This process helps readers connect the parts of a text in a meaningful way, which improves comprehension (Wittrock, 1992). According to Shanahan et al. (2010), story mapping is a very useful tool when it helps students to follow a storyline more accurately. Also see Idol and Croll (1987). Constructing concept maps also helps readers monitor their understanding of texts (Thiede, Griffin, Wiley, & Anderson, 2010).

Text enhancement strategies allow instructors to choose, organize, and teach challenging material. They also make the text more accessible and meaningful (Jitendra & Gajria, 2011), which in turn increases students' comprehension. The researchers indicated that the development of struggling students' comprehension skills is contingent

upon instruction that focuses on both text enhancement strategies and cognitive and metacognitive strategies.

Understanding Metacognitive Behavior

I now turn to metacognitive strategies, which are the focus of my research. In this section, I will discuss the importance of metacognitive strategies in reading. I will then explain the relationship between metacognitive strategies development and learners of different ages. Before reviewing the three selected metacognitive strategies and how they operate in reading, I will highlight one category of learners who usually face more challenges in reading comprehension: English as a Second Language (ESL) learners. ESL instruction in the United States will be the focal point. The section ends with a discussion of the importance of scaffolding.

Definition

The term metacognition has been given many definitions, and most of these defining statements stress the major role of metacognition in ensuring enhanced, active, and independent learning. Mokhtari and Reichard (2002) referred to metacognition as awareness and monitoring processes described as “the knowledge of readers’ cognition about reading and self-control mechanism” (p. 249). While Blakey and Spence (1990) defined metacognition as “thinking about thinking, knowing what we know and what we don't know” (p. 1), Flavell (1979) described metacognition as thinking that regulates and focuses on part of cognitive activities. In fact, the term metacognition may be better explained through clarifying its components, which is the focus of the next section.

Flavell's Model of Metacognitive Components

Flavell (1979) suggested a model of metacognitive components where he differentiated between two variables related to metacognition: knowledge and experience. Flavell pointed out that metacognition falls into three components: (a) metacognitive knowledge, (b) metacognitive experiences, and (c) cognitive monitoring and strategy use.

Metacognitive Knowledge. According to Schneider (1988), metacognitive knowledge is stable and can be articulated. It refers to one's acquired knowledge about cognitive processes, those that aim at overseeing, controlling, and regulating the cognitive processes.

Metacognitive knowledge consists of three variable categories: person, task, and strategy (Flavell, 1979; Camahalan, 2006). The former includes the knowledge one has about the self as well as one's abilities in comparison to or in contrast with the peers'; it also embodies some universals of cognition. Bilingual learners, for example, would know that their knowledge of French may help them make appropriate guesses while reading an English text thanks to positive transfer. Task variable category refers to one's knowledge about a task. As a case in point, a reader may know that he or she will find it easier to read a narrative text than an expository text. Concerning strategy use, for instance when coming across a difficult word, a reader may be aware that they can use several strategies, which include finding contextual clues or looking it up in the dictionary, for the purpose of understanding the word.

The performance of an individual is influenced by their perceived characteristics of the self, task and strategy use, and the interaction of the three components (Palmer & Goetz, 1983). Livingston (2003) explained that one should be aware of both cognitive

and metacognitive strategies, as well as conditional knowledge, which entails when and where it is appropriate to use a strategy. In a classroom setting, metacognitive knowledge of tasks functions when “the nature of a task forces learners to think about how they will manage” (Camahalan, 2006, p. 78).

Metacognitive Experiences. Metacognitive experiences are viewed as conscious thoughts about one’s cognitive processes that are occurring at a particular moment (Flavell, 1979). Resorting to metacognitive experiences may be a consequence of the occurrence of a cognitive failure such as understanding a text. Furthermore, what Johnson-Glenberg (2005) referred to as “immediate, personalized feedback” (p. 757) can help readers repair problems of miscomprehension while they are engaged with the text. It should be noted that not every learner resorts to metacognitive knowledge or metacognitive experiences in the same way, because students remedy cognitive breakdowns by adjusting reading strategies differently.

Cognitive Monitoring and Strategy Use. The interconnection between metacognitive knowledge, metacognitive experiences, cognitive goals, and cognitive strategies is the core of cognitive monitoring. It is perhaps noteworthy that some strategies may be considered both cognitive and metacognitive. Effective learners are distinguished from less effective ones by their ability to monitor cognitive activities (Cantrell et al., 2010). For instance, Hacker, Bol, Horgan, and Rakow (2000) showed that university students earning an A in an educational psychology course more accurately monitored their learning than did lower performing students, who were generally overconfident about their understanding of course materials. Often, less-effective learners do not even realize that their cognitive efforts have gone awry, and most often it happens

that the occurrence of faulty monitoring is very common among readers of all ages and different levels of proficiency (Garner, 1988).

I will next describe metacognitive strategies. In particular, I will:

- (a) emphasize the importance of metacognitive strategies;
- (b) examine the existence of a link between developing metacognitive strategies and students' age;
- (c) describe the relationship between metacognition and English as a Foreign Language instruction;
- (d) suggest three metacognitive strategies for a possible instruction; and
- (e) highlight the role of scaffolding in ensuring satisfactory instruction of reading strategies.

Teaching Reading Metacognitive Strategies: How Important Is It?

Thanks to metacognition, learners are presented with an array of ways to help evaluate the effect of their efforts. Metacognition helps learners estimate the likelihood that they will be able to remember the learned material for a later use. Metacognitive skills allow students to monitor their progress when trying to understand and learn new material (Camahalan, 2006).

Metacognition may be an essential component for student learning in reading. Students who engage metacognitively in reading tasks aptly use related strategies and adapt them to other tasks (Boulware-Gooden, Carreker, Thornhill, & Joshi, 2007). The use of metacognitive strategies can distinguish poor and good readers in the sense that the

former are unable to spontaneously employ effective strategies and cope with reading comprehension difficulty (Kelly et al., 2001). In fact, metacognitive behaviors or skills develop and become reinforced as “learners experience success and feel they are agents of their own learning” (Camahalan, 2006, p. 80). But how does metacognition function in learners of different ages?

Metacognition and Learners of Different Ages

Camahalan (2006) indicated that young children do not learn strategies or skills as readily as do adult learners, because young learners have less ability to organize material. Metacognitive strategies appear to be less developed in young children. Although young learners use cognitive strategies, they are not aware of these strategies, do not apply them deliberately, and are also unlikely to monitor, direct, and evaluate their own learning. Metacognitive strategies and skills develop at a later stage of one’s learning experiences (Cantrell et al., 2010).

Nonetheless, many skills related to reading comprehension remain underdeveloped even among college students. For instance, college students often struggle to accurately monitor their comprehension of texts (Dunlosky & Lipko, 2007; Thiede, Griffin, Wiley & Redford, 2009). Hence, providing training on the use of different metacognitive strategies (as done in the present study) may be important to improving reading comprehension for college students in general and ESL students in particular (international students).

Metacognition and ESL Learners

One category of students who tend to struggle more with reading is English as a Second Language (ESL) learners. ESL learners are usually a group of people who bring linguistic and cultural diversity to the classroom; they are different from those adult students whose first language is English (Center for Adult English Language Acquisition, 2000). Many students, including ESL learners, may be inclined to do poorly and leave school if they feel that they do not fit in or their cultural and social practices are deemed inappropriate in school (Thomas, 2002). This applies to international students (as ESL learners) living and studying in another new environment. ESL learners usually include refugees, migrants, and immigrants who all have experiences with strengths and needs (Center for Adult English Language Acquisition, 2000). Almost 50% of the learners registered in federally funded adult education programs are ESL learners. Most of the programs for adult education provide some instruction of ESL (Office of Vocational and Adult Education, 1999).

In the United States, ESL population is constantly changing as far as country of origin and language background are concerned. Programs in several areas of the country are currently designed to serve not only the predominant Spanish speakers, but also a large number of other language minority groups. These include, but are not limited to, those learners of African, Asian, and the former Soviet Republic origins (Center for Adult English Language Acquisition, 2000). This study will focus on international students in the United States, who share similar characteristics as the other ESL learners such as immigrants and refugees.

Generally, researchers in the field of second language have two different perspectives regarding strategy use in reading. The first group argues that ability in second language reading is primarily a matter of proficiency in the second language at hand (Cziko, 1980). Therefore, improvement and development of language skills is linear in that it moves from “lower level letter- and word-level skills to higher level cognitive ones” (Block, 1986, p. 466). Another group (e.g., Hudson, 1982) argues that higher-level, advanced strategies developed in L1 (one’s first language) may be transferred to one’s second language, and hence can function in parallel with lower-level strategies. The second group of researchers asserts that while proficiency in language develops, linguistic cues may be used more effectively, and thus cognitive processes and predictions would operate more smoothly (Block, 1986).

Block also pointed out that the factors that influence reading ability increase geometrically when dealing with second language reading. The researcher noted that the complexity of investigating second language reading and the increasing difficulty in comparing the results of the studies are due to the “question of the influence of the readers’ first language [and] their second language proficiency” (p. 466). Perhaps, the nature of international students makes them more liable to face challenges in reading, which in turn suggests familiarizing them with cognitive and metacognitive strategies (Block, 1986).

In fact, not enough research has been conducted on second language context and second language reading in particular (Carrell, Pharis, & Liberto, 1989). Empirical studies on reading strategies have been less common, notably on strategies used by successful and unsuccessful learners, including readers (Hosenfeld, 1977). On the other

hand, reading research suggests that less proficient learners can improve their skills if they are engaged in strategy training (Carrell et al., 1989).

Review of Suggested Metacognitive Strategies

“The use of metacognitive strategies helps students to ‘think about thinking before, during, and after they read’”.

(Boulware-Gooden et al., 2007, p. 70)

There are a number of reading metacognitive strategies. In this section, I will review some metacognitive strategies that have been shown to be effective at improving reading comprehension. This part is a succinct review of three commonly used metacognitive strategies suggested for instruction in the present study.

Planning

Studying necessitates the ability to plan strategies for learning (Palinscar & Brown, 1984; Zimmerman & Pons, 1986). Like writing, reading is a three-phase process: pre-reading, reading, and post-reading. As a metacognitive strategy, planning takes place in the phase of pre-reading. In the course of planning, learners would consider thinking about the reading topic and other features that can help them formulate a preliminary idea about the content of the text. Helpful features include, but are not limited to, author, title, table of contents, and front and back cover blurbs (Benchmarkeducation, 2011). Pictures, graphics, headings, and subheadings also play a tremendous role in helping readers make guesses about the content of the text, and are therefore part of the planning strategy (Benchmarkeducation, 2011).

Zimmerman (2008) highlighted the role of goal-setting, which is a strategy used in the planning phase. The author pointed out that while setting challenging goals engenders the achievement of higher-level performance, setting difficult goals is not usually deemed useful in guiding students' self-regulation especially when these goals are not also achievable. Ariel, Dunlosky, and Bailey (2009) also emphasized students' starting the learning process by setting an agenda for learning, which affects decisions about how to study (Thiede & Dunlosky, 1999). Related pre-reading strategies such as predicting, surveying, and making guesses are at the heart of the planning strategy.

When trying to understand a reading text and to avoid time limitations and comprehension constraints, readers must plan their time to ensure efficiency of results (Palinscar & Brown, 1984). The strategy of planning helps learners to test themselves regarding the effectiveness of any tactics they have called into service (Palinscar & Brown, 1984). In addition, for a better text comprehension, planning also calls for careful reading of the questions (Schiff & Calif, 2004).

For instance, a student may use self-planning checks such as these below.

- I'm going to read a book about a nonfiction topic, and I really don't know much about it. I think I should read slowly. If I still don't understand, I may need to reread or skim the text.
- I wonder why...
- I already know something about this topic. It is...
- I know the word _____, but I don't know what _____ and _____ mean.
- I've seen this before when I went to...

- I see lots of graphics and charts. I'll need to use those to help me understand what I'm reading.
- Are there any clue words and phrases that might help figure out what text structure I'm reading?
- Before I continue reading, I need to stop and think about what I just read and make sure I understand it. If I don't, I need to stop and plan.

(Benchmarkeducation, 2011, Teaching)

Related wondering statements may serve as an essential platform for a successful implementation of the planning strategy. While engaged in planning, readers activate their existing knowledge and become ready to start the reading passage.

The next section stresses the importance of monitoring, which is the second metacognitive strategy suggested for instruction in the present study. Readers can use several metacognitive strategies to ensure better monitoring of their comprehension.

Monitoring

Thiede, Anderson, and Therriault (2003) concluded that overall reading comprehension is influenced by how accurately one can monitor comprehension during reading. The researchers pointed out that self-regulated behaviors occur in response to comprehension monitoring. According to many models of self-regulated learning, readers begin to study by establishing “a desired state of learning for the to-be-learned material” (p. 66). In the process, they monitor how well they are learning the material, which is a step toward determining the current level or state of learning. If the current state of learning meets the learners' desired state of learning, the learners will terminate their study.

On the other hand, if the current state of learning does not fulfill the desired state of learning, the learners would continue studying, thereby selecting [new] material for study or allocating additional study time to the material at hand (Thiede et al., 2003). Accurate monitoring of one's comprehension is important, because it provides guiding information on the learners' self-regulated study (Thiede et al., 2003). To take charge of their reading, proficient readers monitor their own comprehension.

In the reading phase, many readers use rereading for the purpose of answering close-reading questions. Monitoring one's reading also designates implementing intratextual features such as rhetorical structures, complex sentence structure, as well as markers-like words, to help integrate new material in reading (Schiff & Calif, 2004). In fact, monitoring one's reading could be reinforced thanks to other metacognitive strategies such as think-aloud, self-questioning, and self-regulating, which I discuss below.

Think-Aloud. The think-aloud strategy was developed by Newell and Simon in 1972 for the purpose of studying problem-solving strategies (Block, 1986). As a metacognitive strategy, thinking-aloud reinforces and facilitates the learning of cognitive strategies or skills. Rosenshine and Meister (1992) considered thinking-aloud as a tool of scaffolding; the strategy ensures effective imparting and modeling of cognitive strategies.

While instructing students on cognitive strategies (e.g., SQ3R), teachers encourage learners to articulate their thoughts and immediate impressions loudly enough to be heard by their peers. For example, when students are practicing question generation (or questioning) in reading, the teacher models his or her thinking processes and verbalizes them in front of students, then students start to practice thinking aloud.

Modeling or simulation of the think-aloud does not necessarily have to be done by the instructor; more proficient or capable students may replace instructors in this regard (Rosenshine & Meister, 1992).

Boulware-Gooden et al. (2007) reported that the use of the think-aloud strategy was shown to be effective at enhancing reading comprehension and vocabulary achievement of third graders. The researchers described Carreker's (2004) example of a teacher who used particular instruction to boost students' thinking-aloud behaviors, which may sound as follows:

Now it is time to read the passage. As you read, think about the answers to the questions I asked you earlier. I want to hear you thinking as you read. If you were right about something, let me hear you softly say "yes." If you need to correct information, let me hear you softly say "oops." If you learn something new, let me hear you softly say "wow" or "aha," says Mrs. Thornton. (p. 70)

According to Block (1986), the think-aloud strategy is considered as a method of direct observation. Based on Anderson's (1991) illustrations of think-alouds, Rosenshine and Meister (1992) pointed out that students can employ thinking-aloud to cope with numerous cognitive strategies, such as summarizing important information, thinking ahead, and clarifying difficult statements or concepts (as explained earlier in the Reciprocal Teaching section). In the classroom, a student's think-aloud utterances, which are used to clarify difficult statements or concepts, may sound like:

I don't get this. It says that things that are dark look smaller. I know that a white dog looks smaller than a black elephant, so this rule must only work for things that are about the same size. Maybe black shoes would make your feet look smaller than white shoes would. (Rosenshine & Meister, 1992, p. 28)

The distinguishing factor of think-aloud is that it allows for students' reporting of their own behaviors and thoughts; consequently, the strategy provides a direct view into the students' mental activity (Block, 1986). Somewhat related to think-alouds is self-explanation, which is an effective way of improving reading comprehension. For instance, Chi, De Leeuw, Chiu, and La Vancher (1994) had students read a text. As they read, students explained how the newly read material fits with what they have already read. Self-explaining improves comprehension by forcing readers to make connections across ideas in a text. It also improves readers' monitoring of comprehension (Griffin, Wiley, & Thiede, 2008).

Developing comprehension monitoring in students appears to be promising. A study conducted by Kolić-Vehovec and Bajšanski (2006) on a group of higher elementary and high school students revealed interesting progress in the comprehension monitoring between fifth- and eighth-grade elementary students and senior high school students. The implication of this study was that the period of higher elementary school is critical to developing comprehension monitoring.

Questioning/Self-Testing. Skilled learners are inured to questioning and elaborating their own knowledge and the content of the text (Benchmarkeducaton, 2011). Questioning helps learners test their degree of understanding by considering alternative, counter examples, and by raising possible generalizations and applying their newly learned knowledge. While employing the questioning strategy, learners may also correct their previous misunderstandings (Collins & Smith, 1982). Questions like "Do I understand what I just read?" or "What does the author really want me to know about this text?" are at the heart of monitoring (Benchmarkeducaton, 2011, Monitoring during

reading). Livingston (2003) noted that the self-questioning strategy may be employed in reading as a means of tapping knowledge (cognitive) or as a means of monitoring the activity of reading (metacognitive).

Rosenshine and Meister (1992) indicated that question generation may be an efficient strategy for promoting higher-level thinking. According to the researchers, for learners to generate questions, they need to search the reading text and combine information, because these two sub-strategies aid them in comprehending what they are reading. Wilson and Smetana (2011) cited a classroom teacher simulating the self-questioning strategy in front of her students, saying:

Before I read I have to activate my prior knowledge. I read the title first... and I ask myself, 'What do I already know about this topic?' To answer this 'On my Own' question, I remind myself that in class yesterday we talked about how the Battle of Bull Run was the first major battle of the Civil War. Then I wonder, 'Why am I reading this?' Another 'On my own' question. Now, I need to create a purpose. My purpose is developed from the title. It is to learn about the Battle of Bull Run and what it has to do with the Civil War. (p. 1)

Along with self-questioning, monitoring one's comprehension in reading may be enhanced when learners or readers test themselves. According to Rawson, O'Neil, and Dunlosky (2011), self-testing has two benefits. First, it improves learners' monitoring accuracy, which in turn results in the effectiveness of controlling their learning. Second, like self-questioning, self-testing can directly sharpen memory of the learned concepts, so that readers can correctly remember and better retain the learned material. The researchers' study examined the effectiveness of incorporating support for self-testing and monitoring into the learned materials. Overall, self-testing indirectly and positively affects learning; it improves monitoring (Rawson et al., 2011).

Self-Regulating. The strategy refers to the learners' ability to self-regulate their own learning. It is also considered as the core of any successful, lifelong learning (Schraw & Brooks, n.d.). Zimmerman and Pons (1986) defined it as actions directed towards, and aimed at, acquiring skills or information that involve purpose or goals and agency by the learner.

Upper graders' success in school is thought to be strongly dependent upon their self-regulation, notably in unstructured settings where studying and learning often take place (Zimmerman & Pons, 1986). According to the researchers, research has been heavily conducted in academic settings, yet the role of self-regulated learning processes in non-classroom settings, naturalistic contexts in particular, remains vital. Self-regulation entails an awareness of one's personal interests, goals, strengths, and weaknesses (Schraw & Brooks, n.d.). Cognitive strategies such as those described in the the SQ3R and text enhancement strategies are an essential part of the self-regulatory behavior in reading, which includes teaching or learning "problem-solving techniques, self-evaluation, and self-control" (Gall, Gall, & Borg, 2010, p. 365).

According to Palinscar and Brown (1984), learners proceed with reading gradually. At the first level, they read rapidly, even effortlessly. However, at a later level (or state), they continue reading slowly and laboriously, thereby "calling into play a whole variety of learning and monitoring activities" (p. 4). Depending on individual differences, readers who monitor their understanding know that they are not getting it, regardless of understanding all the words and making sense of the text (Chapman, 1993). Active readers would therefore "slow down, sharpen their attention, and try different reading strategies" (p. 7).

The readers' self-control mechanisms are used while monitoring and regulating text comprehension (Mokhtari & Reichard, 2002). Besides decoding skills, phonological awareness, and vocabulary, students need metacognitive strategies to monitor their understanding of and reflection on what they are reading (Boulware-Gouden et al., 2007). Strategies such as self-questioning and think-aloud help achieve this objective.

Evaluating

The next suggested metacognitive strategy is evaluating. Evaluating in reading serves several purposes. Succinctly defined as making judgments, evaluating helps readers determine: (a) the importance of information obtained from written text, (b) accuracy and credibility in reading, (c) appropriateness and/or usefulness of ideas, (d) personal enjoyment of reading a text, and most importantly, (e) one's own progress as a reader (Fries-Gaither, 2012). Going through activities of post-reading strategies reflects "high order needs such as the ability to summarize the main ideas [and] to understand the implications and applications of the text" (Schiff & Calif, 2004, p. 109), as well as the importance of seeking additional information for outside needs. It is perhaps noteworthy that this strategy represents an inevitable, evaluative component of the metacognitive process (Benchmarkeducation, 2011, Evaluating). Self-evaluation in reading helps connect the conclusions made after reading with the predictions and guesses made during the planning phase. It therefore provides an overall view of the reading activity.

Zimmermann and Pons (1986) defined the evaluating strategy as statements [or behaviors] that indicate student-initiated assessment of the quality or progress of their work. For example, students would check over their work to make sure they did it right. Many students mistakenly think that once they have answered all the comprehension

questions, they are done with the reading task. This might be typical of novice or struggling readers, because proficient readers reflect and check whether or not they used related cognitive strategies. They also make sure all the questions were answered appropriately. The evaluation of one's comprehension is crucial (Paris, Wasik, & Turner, 1996).

The three strategies selected for this study (planning, monitoring, and evaluating) fit in Zimmerman's (2008) self-regulatory processes, which consist of three cyclical phases. Planning is matched with the concept of forethought. Forethought processes always precede learning cognitive efforts and are intended to enhance these efforts. Improving self-monitoring is the goal and outcome of performance phase actions. The processes of self-reflection occur after applying and exerting cognitive efforts in reading, as an example. Figure 2.1 further describes Zimmerman's (2008) model of the self-regulatory cyclical processes.

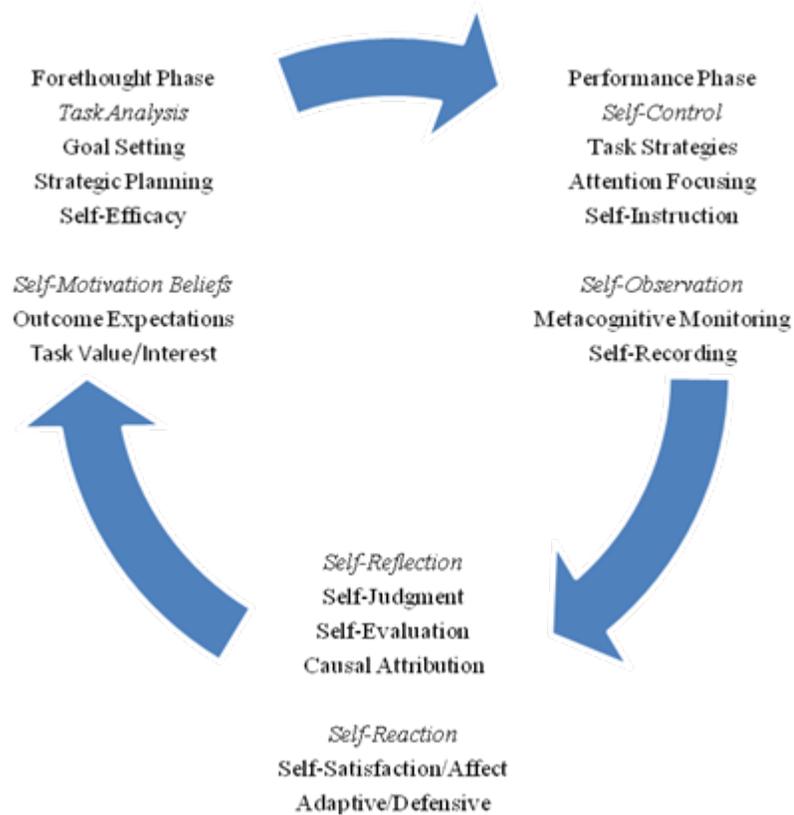


Figure 2.1 Self-Regulatory Phases and Processes. (From “Motivating self-regulated problem solvers,” by B. J Zimmerman & M. Campillo (2003))

Teaching students planning, monitoring, and evaluating in reading calls for forms of instruction. Scaffolding is one medium of instruction through which metacognitive strategies may be imparted.

Scaffolding for Efficient Instruction of Metacognition

Efficient instruction of metacognitive strategies requires appropriate ways for fulfilling students' lack or need of metacognitive behaviors in reading. Scaffolds can be an effective method for ensuring students' grasp of both cognitive and metacognitive strategies. Comprehension-fostering strategies expose students to a host of knowledge-extending skills and strategies (Palinscar & Brown, 1984). These strategies pertain to higher-level thinking.

As one form of support, scaffolding may be provided by the instructor or a peer to help students "bridge the gap between their current abilities and the intended goal" (Rosenshine & Meister, 1992, p. 26). According to the researchers, scaffolds may be exercised through tools such as cue cards, or techniques such as teacher modeling. Good use of scaffolding may replace explicit teaching.

Nevertheless, while using scaffolding for the purpose of teaching cognitive and metacognitive strategies, several considerations come to the surface. First, it is crucial that the students' background knowledge of the reading task be sufficient (Rosenshine & Meister, 1992). Also, scaffolding should occur within the learners' zone of proximal development (ZPD), which refers to the area where and the level at which students cannot learn on their own and thus need the instructor's or peer's assistance (Vygotsky, 1978). Lastly, scaffolding students ought to be done gradually until they gain confidence and are able to learn and employ related strategies independently (Rosenshine & Meister, 1992).

Summary

The literature review provides an overview of the concept of metacognition. Explaining Flavell's (1979) model of metacognitive components served as further elaboration on the concept of metacognition. I highlighted the need for reading strategies listing some prerequisites for effective instruction of reading strategies. After reviewing some widely used reading strategies and approaches to the teaching of reading strategies (e.g., the SQ3R), three metacognitive strategies were elucidated. The importance of introducing metacognition in the classroom and examining the likely development of metacognition in learners of different ages served as a platform for emphasizing ESL learners. The role of scaffolding was then stressed.

In light of the importance of helping students learn reading metacognitive strategies, this study investigated the effect of teaching three reading metacognitive strategies: planning, monitoring, and evaluating. The next chapter looks closely at the methodological side of this research. It provides information on the participants, the instruments, the research design, and the procedure.

CHAPTER THREE: METHOD

The goal of this research was to evaluate whether teaching ESL learners the three reading strategies of planning, monitoring, and evaluating would (a) increase their metacognitive knowledge (as measured by the Metacognitive Awareness of Reading Strategy Inventory, Mokhtari & Reichard, 2002), and in turn (b) improve their comprehension.

Participants

Eight international students enrolled in an intensive English program participated in this study. These participants were all non-English speakers. The class in which the study was conducted initially contained 10 students and few days after they started, one student dropped. Towards the end of the course another student had to quit because of medical reasons (hence N=8). The students who participated in this study were from Saudi Arabia (6) and South Korea (2).

The summer intensive course lasted 6 weeks during the months of June-July, 2011. The course was titled Reading and Writing, and the students met Monday through Thursday and received three hours of instruction. The Reading and Writing course was scheduled from 12:30 to 3:30PM, and in the morning the same students had another course, Communication.

Table 3.1 provides demographic information on each of the eight participating ESL students. Six were from Saudi Arabia. The average age was 24.5. Two students were female. Four were planning to pursue a science-oriented major.

Table 3.1: Description of the Subjects' Demographic Data

Gender	Nationality	Age	Intended Major
M	Saudi Arabia	31	Business Administration
M	Saudi Arabia	31	Respiratory Care
F	Saudi Arabia	24	Finance
M	South Korea	22	NA
F	South Korea	21	NA
M	Saudi Arabia	25	Computer Sciences
M	Saudi Arabia	22	Information Technology
M	Saudi Arabia	20	Bio-Medical Engineering

Instruments

Two instruments were used in this research: Metacognitive knowledge was measured with the Metacognitive Awareness of Reading Strategy Inventory (MARS) (Mokhtari & Reichard, 2002) and reading comprehension was measured with two tests developed by the researcher.

Metacognitive Awareness of Reading Strategy Inventory (MARS)

The MARS survey, which was developed by Mokhtari and Reichard (2002), is a self-reported instrument designed to examine students' use of reading strategies for

academic reading purposes (Mokhtari & Reichard, 2002). The MARSİ is one of the few instruments to measure metacognitive knowledge associated specifically with reading. This instrument was piloted and evaluated several times in terms of validity, reliability, and consistency (Mokhtari & Reichard, 2002). Its items were exposed to “successive cycles of development, field-testing, validation, and revision” (p. 251). Initially, a hundred items were generated; removal of many redundancies culminated in the final version.

The questionnaire (survey) contains thirty statements presented on a Likert-item scale ranging from 1 to 5 (1 means I never or almost never do this while 5 means I always or almost always do this). The MARSİ includes three domains of reading strategies: Global reading, Problem-solving, and Support strategies. Global reading strategies are more targeted toward analyzing a text holistically. Problem-solving strategies are oriented towards finding solutions to understanding a text when it becomes difficult. Support strategies are based on the use of external reference material such as note-taking (Mokhtari & Reichard, 2002). The scales are Global Reading Strategies, Problem-Solving Strategies, and Support Reading Strategies, henceforth referred to as GLOB, PROB, and SUP respectively. See Appendix A for the MARSİ statements and Appendices B and C for more information on the MARSİ scoring rubric and categories.

Comprehension Tests

The researcher developed two tests of comprehension. For these tests, participants read a text (approximately 500 words long) selected from a set of texts on two ESL websites (Esl-lounge, 2012; WebRing, 2012). One text was entitled *Just Married* and was about a newly-wed couple who had both similar and different expectations about future

plans such as the honeymoon. The other text was entitled *Volunteers and Charitable Collections* and was about aspects of the American people, notably volunteering and charity work. The two comprehension tests were examined before the treatment started. They were piloted by three English as a Foreign Language (EFL) teachers, six students, and an EFL teacher supervisor from Morocco, one teacher from Idaho, and the subjects' instructor. Changes were made accordingly. They found them appropriate. My advisor also examined the texts. The Moroccan students who piloted the texts were identified by the researcher because of their relatively similar level (Level 3). The texts were relatively similar in difficulty too.

Each reading test consisted of three question types. The first section contained four true/false questions; the subjects were not required to provide justification for their answer. The second section, word reference, asked students to find the antecedent or reference of two words: a pronoun such as *they* and a possessive adjectives such as *her*. The third category of questions comprised four open questions using wh- question words such as *what* and *why*. See Appendices D and E for both reading tests and test questions. It is important to note that in *Just Married* (Text One) the true/false questions were extracted from the online reference (website), whereas those in *Volunteers and Charitable Collections* (Text Two) were designed by the researcher. Word reference and wh- questions in both texts were designed by the researcher. In terms of scoring, any correct answer was marked with (1) while wrong responses were marked with (0). The subjects were allowed half an hour to complete the MARSII survey and forty-five minutes to complete the comprehension test.

Design

In this study, a pretest-posttest design was used to evaluate change in metacognitive knowledge and reading comprehension. That is, participants completed the MARSII and one test of reading comprehension at the beginning of the study—before receiving any instruction on metacognitive strategies. Participants completed the MARSII and a different test of reading comprehension at the end of the class; half the participants read *Just Married* first, followed by *Volunteers and Charitable Collections*; the other half of the class read the texts in the opposite order.

Procedure

After obtaining the Institutional Review Board approval, the researcher administered the consent form in class and explained the study on the first class. The students were presented with information on the study and were asked to volunteer to participate in the study. It was made clear that choosing to participate had nothing to do with their grade. All the students in the class agreed to be part of the study. Three days later, the consent form was collected, and the MARSII and one comprehension test were completed.

As part of the typical intensive English program, the instructor taught the students (participants) different strategies. The instruction aimed at improving students' reading with an emphasis on the three reading strategies: planning, monitoring, and evaluating. On the last day of class, the students completed the MARSII and the second comprehension test.

The intervention consisted of direct instruction where the instructor provided information on each strategy. The students had several reading passages as part of their class, and were asked to apply the strategies they learned in class. The students were also reminded of the reading strategies they learned in the previous session before moving to the next strategy.

The instruction in the present study emphasized familiarizing the students with planning, monitoring, and evaluating in reading. For this end, the instructor's modeling of several related strategies served as instances for students to watch and practice. For instance, the instructor was often using the think-aloud and self-questioning strategies as tools for portraying the kind of thoughts that cross readers' minds and behaviors that helped them maintain control over reading (monitoring). Furthermore, the subjects' reading class assignments and homework lent themselves to implementing the learned strategies.

CHAPTER FOUR: RESULTS AND DISCUSSION

The purpose of this study was to examine whether teaching ESL students the three metacognitive strategies of planning, monitoring, and evaluating would (a) increase their metacognitive knowledge (as measured by the Metacognitive Awareness of Reading Strategy Inventory, Mokhtari & Reichard, 2002), and in turn (b) improve their reading comprehension.

The two hypotheses examined the impact of teaching ESL students planning, monitoring, and evaluating on improving their metacognitive knowledge and in turn reading comprehension. To evaluate these two outcomes, the researcher conducted a dependent *t*-test using the Statistical Package for the Social Sciences (SPSS) software for Windows, version 19.0, in which the means for the pretest and posttest of both MARSI scales and comprehension tests were analyzed. I will discuss these analyses in turn.

Change in Metacognitive Knowledge

To evaluate the effect of teaching metacognitive strategies, the researcher compared pretest and posttest scores on the MARSI. The descriptive statistics for the three scales of the MARSI are presented in Table 4.1.

MARSI Survey Results

Table 4.1: Paired Samples Statistics of Each Reading Strategy Scale Used in the Present Work

Reading Strategies Scales		Mean	N	Std. Deviation	Std. Error Mean
Global reading strategy scale	Pre	3.02	8	0.57	0.20
	Post	3.91	8	0.63	0.22
Problem-solving reading strategy scale	Pre	3.34	8	0.46	0.16
	Post	4.10	8	0.76	0.26
Support reading strategy scale	Pre	3.00	8	0.69	0.24
	Post	3.91	8	0.68	0.24

Table 4.1 provides statistics describing the mean values of the pretest and posttest of each reading strategy scale, namely GLOB, PROB, and SUP. A description of standard deviation and standard error mean values for each of the scales is also displayed.

Scores on the global reading strategy scale differed significantly, $t(7)=2.678$, $p=0.032$. As seen in Table 4.1, scores increased from pretest to posttest. Scores on the problem-solving reading strategy scale also differed significantly, $t(7)=2.532$, $p=0.039$. Again scores increased from pretest to posttest. Finally, scores on the support reading strategy scale also differed significantly, $t(7)=2.539$, $p=0.039$. These scores also increased from pretest to posttest. Thus, as seen in Figure 4.1, scores on all three scales

increased from pretest to posttest, which indicates that teaching the metacognitive strategies likely increased the subjects' metacognitive knowledge.

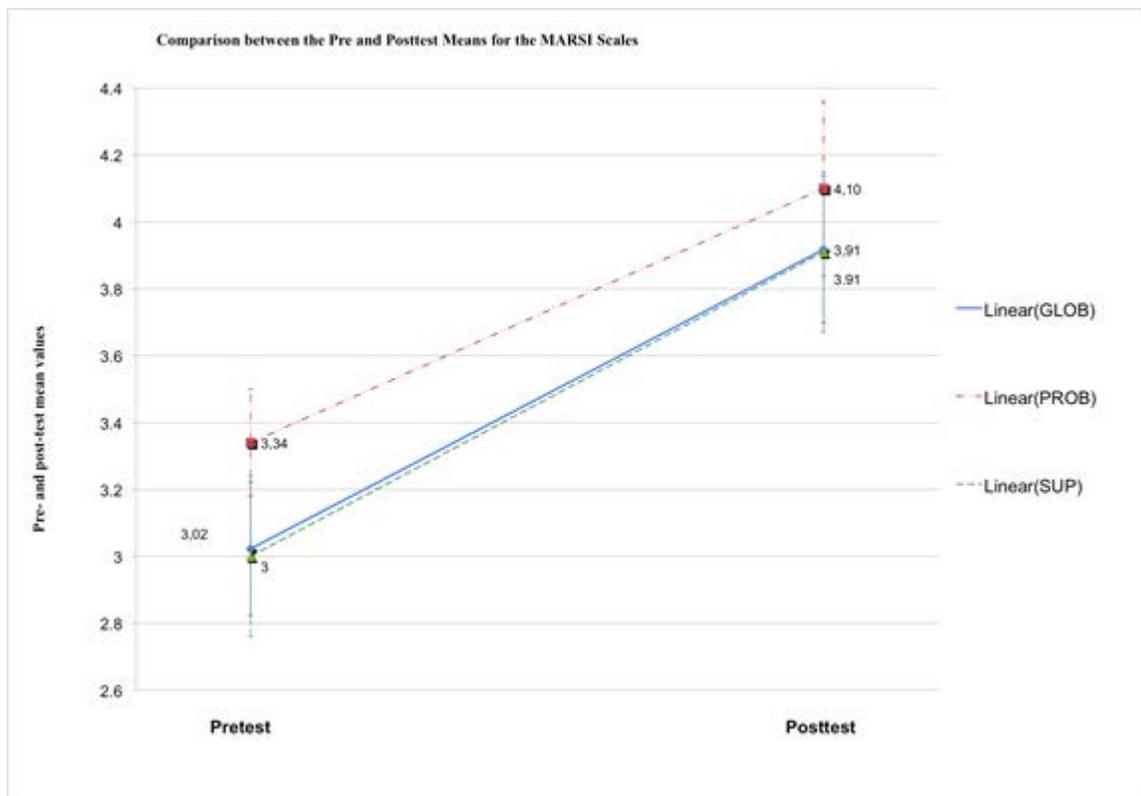


Figure 4.1 Comparison between Students' Pre and Post Means of the Strategy Scales: GLOB, PROB, and SUP. The Bars in the Data Represent the Standard Errors of the Mean Values

Mokhtari and Reichard (2002) developed norms for the scale scores of the MARSJ. Scores greater than 3.5 are considered high, scores between 2.5 and 3.4 are considered medium, and scores less than 2.4 are considered low. Based on these norms, for all three scales, the students in this study moved from medium to high levels of knowledge of strategies.

Change in Reading Comprehension

The researcher evaluated whether the increase in teaching metacognitive strategies led to differences in reading comprehension. To evaluate this, the researcher compared pretest and posttest scores on the tests of reading comprehension. The descriptive statistics for the three comprehension test question types are presented in Table 4.2.

Comprehension Test Results

Table 4.2: Paired Samples Statistics of Each Comprehension Test Question Types Used in the Present Work

Comprehension Test Questions		Mean	N	Std. Deviation	Std. Error Mean
True/False	Pre	0.84	8	0.84	0.06
	Post	0.71	8		
Word Reference	Pre	0.81	8	0.91	0.06
	Post	0.93	8		
Wh- questions	Pre	0.56	8	0.19	0.14
	Post	0.84	8		

The results in Table 4.2 suggest that overall reading comprehension did not increase with instruction on metacognitive strategies. Table 4.2 provides paired sample statistics describing the mean values of the pre and posttest of each question type, namely true/false, word reference, and wh- questions. A description of standard deviation and standard error mean values for each question type is also displayed in Table 4.2.

Performance on the true/false tests did not differ from pretest to posttest, $t(3) = 1.10, p = 0.35$. Performance on word reference questions also did not differ, $t(1) = .92, p = 0.52$. However, performance on the wh- questions differed significantly from pretest to posttest, $t(3) = 4.65, p = 0.01$. As seen in Figure 4.2, performance on the wh- questions increased from pretest to posttest.

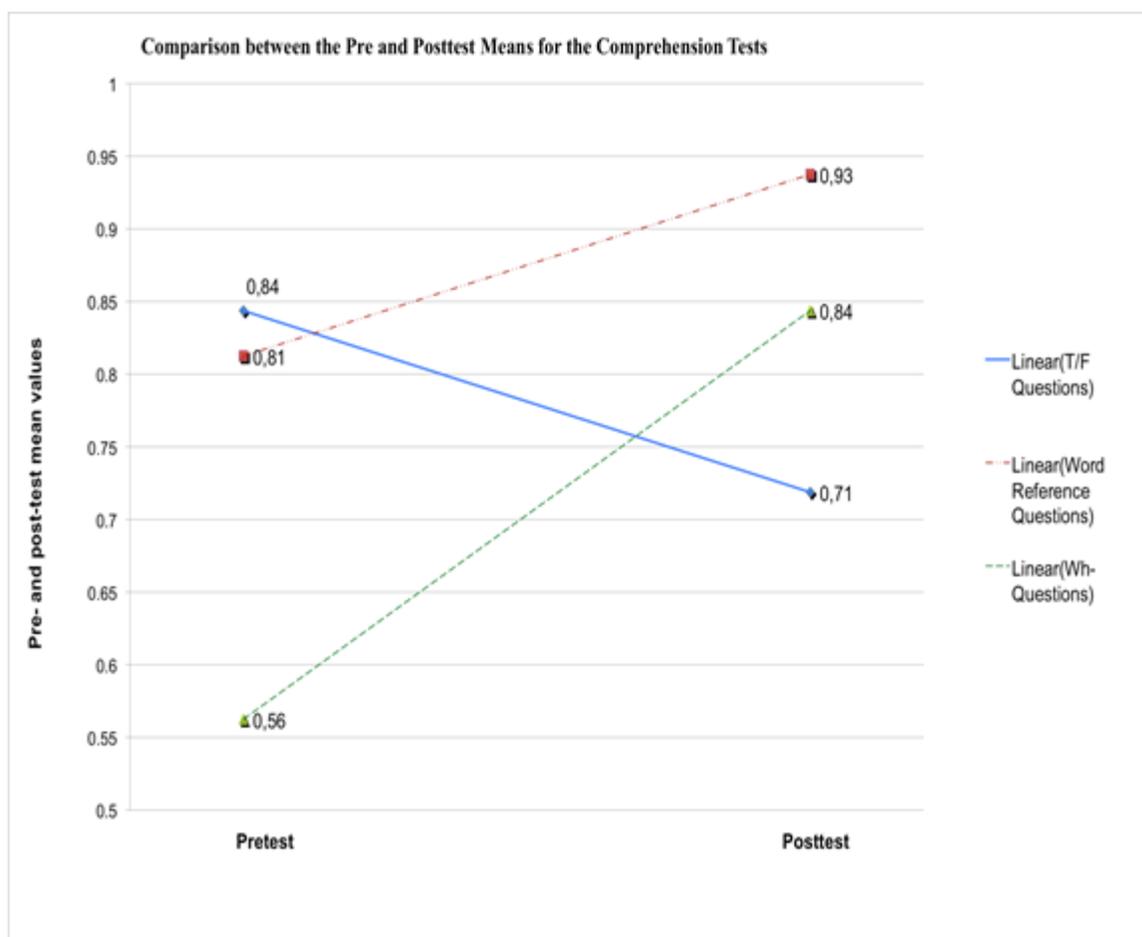


Figure 4.2 Comparison of the Comprehension Tests Pre and Posttest Results

Discussion

Empirical evidence has shown the existence of an association between readers' metacognitive knowledge and reading comprehension (Kelly et al., 2001). The overarching purpose of this study was to examine the impact of teaching three reading

metacognitive strategies to eight ESL students enrolled in an intensive English program. Specifically, it evaluated whether a metacognitive reading intervention would (a) increase their metacognitive knowledge and in turn (b) improve their comprehension. The results revealed an increase from pretest to posttest in all three areas of metacognitive knowledge: global strategies, problem-solving strategies, and support strategies with statistically significant differences in each reading scale. Comprehension test performance revealed mixed results. Whereas performance on true/false and word reference tests did not change significantly from pretest to posttest, performance on wh-questions improved across time.

Differences in Metacognitive Knowledge

The results showed that teachers can successfully teach their students metacognitive strategies. The increase in students' metacognitive knowledge is a likely outcome of the metacognitive reading intervention. In fact, this improvement might be the result of the nature of the metacognitive strategies emphasized in this study. Selection of the three strategies of planning, monitoring, and evaluating was not arbitrary. They lend themselves to a range of situations other than reading, including speaking, writing, and listening. The strategies are also considered as basic skills of argument (Palinscar & Brown, 1984). Implementation of planning, monitoring, and evaluating aligns with the steps of reading as a language skill, namely prereading, reading, and rereading.

The strategies selected for this study also fit in Zimmerman's (2008) self-regulatory processes, which consist of three cyclical phases. Planning is matched with the concept of forethought. Forethought processes always precede learning cognitive efforts

and are intended to enhance these efforts. Improving self-monitoring is the goal and outcome of performance phase actions. The processes of self-reflection occur after applying and exerting cognitive efforts in reading, as an example.

The improvement in global reading strategies may be associated with students learning the use of particular strategies. Related strategies include, but are not limited to, previewing to see what they know about the topic before starting to read, setting a purpose before reading, using graphs and pictures to formulate a preliminary idea about the topic, as well as considering the length and organization of the text. All these strategies are at the heart of the metacognitive strategy of planning.

Zimmerman (2008) emphasized the role of going through reading strategies before starting to read. Many of the global reading scale statements fulfil this purpose. Interestingly, global reading strategy statements also have a bearing on evaluating. Practices like checking whether one's previous guesses were right or not are part of the evaluating metacognitive strategy.

A study conducted by Cantrell et al. (2010) revealed different results. In their attempt to examine the impact of the Learning Strategies Curriculum (LSC), the researchers used the MARSII as an instrument for assessing students' comprehension. Cantrell et al.'s findings reported no significant difference in the sixth and ninth graders' global strategy; rather they reported a decrease in the treatment-control group results (2.74 and 2.73, respectively).

Schiff and Calif (2004) indicated that using prereading strategies, such as planning extensively, empowers learners to cope with academic English scripts with more confidence and better prediction tools. The outcome in turn is the alleviation of

students' anxiety levels (Schiff & Calif, 2004). While engaged in a learning situation, readers' self-reflective behaviors reinforce the forethought [planning] processes (Zimmerman, 2008). Wiggins and McTighe (2005) explained that although many learners are able to perform low-level tasks, they still remain universally weak and less proficient at any higher-order tasks that require transfer. Conversely, good readers would not usually resist the need to rethink and revisit background knowledge, which usually takes place during planning (Wiggins & McTighe, 2005).

The subjects also increased their knowledge of problem-solving strategies. The problem-solving reading scale includes strategies such as rereading, visualizing, guessing the meaning of difficult words, and adjusting their reading pace according to their comprehension level (Mokhtari & Reichard, 2002). Cantrell et al.'s (2010) study targeted sixth and ninth grade students and reported significant improvement in sixth grade treatment group problem-solving strategies. The researchers' findings suggested no significant differences in the ninth grade control group results. What is different is that Cantrell et al.'s subjects are elementary and middle school students, whereas the present study targeted ESL college students. It is perhaps noteworthy that Cantrell et al.'s study lasted one year while the present study period was only six weeks.

Problem-solving strategies in reading are especially connected with those behaviors that are part of one's metacognitive experiences. Resorting to metacognitive experiences may result directly from the occurrence of a cognitive failure (e.g., inability to understand a word). That is, when students run into an unfamiliar word, they may automatically have recourse to what Johnson-Glenberg (2005) called immediate and personalized feedback, which is expected to help repair problems of miscomprehension

while reading. It should be mentioned that not all learners use metacognitive knowledge or metacognitive experiences in the same manner or frequency. Students remedy the cognitive breakdowns by differently using and adjusting reading strategies, including problem-solving ones. For instance, while some readers are accustomed to highlighting key words, others are more used to questioning while reading.

Finally, in this study, the subjects increased their knowledge of support strategies. Related strategies include self-questioning, summarizing, paraphrasing, note-taking, discussing the learned material with peers, and trying to find a relationship between ideas back and forth in the text. The cognitive and metacognitive strategies that fall into the support category, perfectly align with monitoring, which was the second strategy suggested for instruction in the present study. For instance, the questioning strategy, as one support reading strategy, is designed to promote students' comprehension, because it allows for readers' activation of their prior knowledge. It is highly recommended that readers write questions in the margins or make connections; they are also expected to employ other reading strategies such as making inferences and using context clues (Benchmarkeducation, 2011). The findings of this study are different from that conducted by Cantrell et al. (2010) in that the researchers reported a change between their treatment and control group in support strategies.

Perhaps the ESL students' increase of metacognitive knowledge reinforces the importance of introducing metacognition in ESL classrooms and reliance on effective instruments, such as the MARSIS, to obtain accurate research data. The MARSIS survey has three advantages (Mokhtari & Reichard, 2002). First, it helps increase students' awareness of their reading strategies. Second, teachers can use the instrument as a tool to

assess, monitor, and document the number and type of reading strategies that their students use. Third, researchers can use the MARSİ as a useful tool to investigate the effect of teaching reading strategies on the learners' reading comprehension for numerous reading conditions.

Skilled readers are usually good at comprehending texts, using their world knowledge, drawing valid inferences from text, using comprehension monitoring, and repairing comprehension breakdowns (Mokhtari & Reichard, 2002). They also “often engage in deliberate activities that require planful thinking, flexible strategies, and periodic self-monitoring” (p. 249), strategies that were the focus of this study. MARSİ strategies lend themselves to many reading behaviors such as monitoring, which fosters active reading.

Kolić-Vehovec and Bajšanski (2006) conducted a study where they examined comprehension monitoring and perceived use of reading strategies being factors of reading comprehension. The study findings revealed the occurrence of significant improvements in the students' comprehension monitoring after fifth and between sixth and eighth grades. Similarly, the present study resulted in a significant improvement in student metacognitive knowledge.

Difference in Reading Comprehension

The comprehension results from this study were mixed. Performance on true/false and word reference tests did not differ across time. In contrast, performance on wh- questions increased across time. One explanation for the results is that wh- questions assess comprehension to a greater degree than do true/false or word reference tests, which may assess surface knowledge. That is, the metacognitive strategies learned in this study

may improve students' ability to comprehend texts, but do little to help students remember the details of the text.

The increased performance on the wh- questions may be indicative of the strategies learned during the study. That is, as Palinscar and Brown (1984) indicated, reading comprehension is not always the product of considerate texts and compatibility of the readers' knowledge with text content. It is also the product of the active strategies readers use while dealing with texts to enhance understanding and retention and circumvent comprehension breakdowns (Palinscar & Brown, 1984).

Another reason for the lack of difference in test performance may be the tests themselves. Unlike the MARSI, which was shown to meet the criteria of validity, reliability, and consistency (Mokhtari & Reichard, 2002), the two comprehension tests were not shown to be academically peer-reviewed, valid, or reliable; they were approved by selected students and instructors only, but not reading specialists. Using unreliable tests could add measurement error to the study and make it more difficult to find significant gains in test performance.

One study conducted by Carrell et al. (1989) targeted improvement of reading strategies in ESL context. Similar to the present study, the researchers theorized that teaching ESL students in metacognitive strategies would affect their comprehension. The researchers also worked with students at the intensive English as a Second Language Center at the University of Illinois. The results of Carrell et al.'s (1989) study suggested that the metacognitive intervention in reading was effective at improving second language reading comprehension.

In addition to question type, sample size and research design are two other variables to consider in reading data and making speculations. The current results of the students' metacognitive knowledge and comprehension might have been different had the present study included a larger sample and a design with a control group. The size of the sample is a highly probable reason for yielding a statistically not significant difference in the students' comprehension true/false and word reference scores. When it comes to training or testing (e.g., experimenting reading strategies as in the present study), a small size usually has negative effects and may therefore easily contaminate the evaluation of the experiment (Raudys & Jain, 1991). For example, unlike the present study sample size, which is very small (N=8), Carrell et al.'s (1989) sample size was relatively larger (N=26).

Carrell et al. (1989) also used two groups (experimental and control) to compare the difference in the students' use of metacognitive strategies in ESL reading texts. Unlike the present study, the researchers' results suggested an increase in the students' comprehension, whereas the control group showed no gains at the level of comprehension tests, which included open-ended questions such as wh- questions. This example suggests another limitation of the present study: absence of a control group. Although the results showed that metacognitive knowledge increased across time, it is not clear that increases in knowledge are not due to maturation. A control group would have allowed me to examine the change in metacognitive knowledge that occurs without the intervention. Unfortunately, I was unable to include a control group, because only one group of students was available at the time I collected data.

One last possible explanation for the lack of difference in comprehension is that the students did not have time to learn to implement these strategies to improve comprehension. This study was conducted over a six-week period. It may take months and even years for strategies to be implemented effectively by readers (Pressley et al. 1992), yet emphasizing planning, monitoring, and evaluating yields positive results in ESL students' reading comprehension, despite a limited period of time (six weeks as is the case with the present study).

Limitations of the Study

The major limitation of this study is the small sample size. Even though it provides a rough idea of the impact of the strategies applied, results of this research might not be generalizable to other students and contexts because the number of the sample (N=8) is not large enough to lead to generalizability. Another major limitation is the absence of a control group. That is, because the study did not have a control group, it is not possible to know exactly the extent to which the subjects' metacognitive knowledge and comprehension were influenced by the instruction. The short duration of instruction (6 weeks) could be another limitation. A minor limitation is the timing of the course, which was in the afternoon in summer.

Suggestions for Further Study

Using a treatment-control group design, an empirical study could be conducted to find out more about ESL students' strategy use in reading comprehension. It would be very interesting to duplicate this study using a larger sample with international students. Another level of comparison could be more specific to the nature of strategy use of the

treatment group. That is, are the reading strategies in second language those same strategies students learned in their first language or ones learned in the target language (English in this case)?

CHAPTER FIVE: IMPLICATIONS AND GENERAL CONCLUSION

Metacognitive Strategies for Teachers and Curriculum

Learners can be taught to believe in the value and importance of reading strategies if they are ever to employ them consistently (Nash-Ditzel, 2010). In fact, the major goal of teaching metacognitive strategies lies in helping vulnerable students become independent learners and, potentially, successful thinkers. Further, teachers should design activities where students share reading strategies and comment on those that were successfully employed (Schraw & Brooks, n.d.), which is part of the thinking about doing process.

An application of cognitive psychology to education has supported the idea that learners benefit more from instruction that helps them reflect on their own learning processes (Armstrong, 1994). Teachers should make sure ESL students in particular are effectively helped with assimilating metacognitive behaviors and sufficiently scaffolded, so that they can use the newly learned strategies and cope with both academic and non-academic reading tasks. Therefore, it is hoped that teachers be familiar with approaches to, and ways of, teaching efficient study strategies in general, and reading metacognitive strategies in particular.

Curriculum is another variable to consider if effective teaching of metacognitive strategies is to occur. In addition to the teacher's familiarity with metacognition, the curriculum and instruction ought to include statements of why the strategy should be

used, directions for implementation, and a list of sources for information on how to create similar activities from the strategy in use (Mitchell, 1996). Moreover, improving metacognitive knowledge increases reading comprehension, when comprehension was assessed as more deep comprehension (wh- questions); hence, wh- questions should perhaps be prioritized over true/false questions unless the latter are used with large items (questions). In fact, reading instruction in elementary and secondary schools has been characterized by increasing interest, yet rather limited implementation (Gall, Gall, Jacobsen, & Bullock, 1990). It is perhaps time for curriculum developers to start full implementations of the recommendations of conferences and related guidelines, rather than keeping them on paper only.

Students' Motivation and Self-Concepts

Another highly important variable for the success of any strategy training is that of student motivation. Motivational factors play a major role in any learning operation and should accordingly be considered. Success in using planning, monitoring, and evaluating is also a question of how ready the students are. Developing motivational skills ought to be another focus in everyday teaching, because the motivation to learn is centrally involved in and critical to self-control of learning (McCombs, 1982). In addition, the role of motivation, be it intrinsic or extrinsic, has been deemed crucial for better performance in tasks requiring cognitive and metacognitive strategies.

The self-motivated and self-directed readers are able to plan, regulate, and evaluate their own skills and strategies (McCombs, 1982). Sometimes, students are not cognizant of their own resources or abilities. In fact, ESL teachers, for example, may have a major role in boosting their students' morale and self-confidence. Thus, the role of

confidence becomes decisive for coping with cognitive tasks in general and reading in particular.

Conclusion

Introducing metacognition in the classroom in general and ESL settings in particular is critical to students' overall success. The goal of this research was to evaluate whether teaching ESL learners metacognitive strategies (planning, monitoring, and evaluating) would:

- (a) increase their metacognitive knowledge, and in turn
- (b) improve their comprehension.

According to the research findings and considering the two hypotheses, two conclusions come to the surface. First, although the teacher, not the researcher, taught the three strategies, and the students might have learned these strategies in their first language, the subjects' metacognitive knowledge increased on the three MARS reading scales. Thus, teachers can effectively teach metacognitive strategies. Second, an increase in metacognitive knowledge does not necessarily lead to improvement of reading comprehension. A reading intervention of planning, monitoring, and evaluating is not always strongly linked to improving readers' comprehension due to other variables or factors such as sample size, duration of training, research design, and students' motivation.

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APPENDIX A

Metacognitive Awareness of Reading Strategy Inventory (MARSI, Version 1.0)

Metacognitive Awareness of Reading Strategy Inventory (MARSI, Version 1.0)

Directions: Listed below are statements about what people do when they read academic or school-related 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” (about 50% of the time).
- 4 means “I **usually** do this.”
- 5 means “I **always or almost always** do this.”

After reading each statement, **circle the number** (1, 2, 3, 4, or 5) that applies to you using the scale provided. Please note that there are **no right or wrong answers** to the statements in this inventory.

Type	Strategy	Scale				
GLOB	1. I have a purpose in mind when I read	1	2	3	4	5
SUP	2. I take notes while reading to help me understand what I read	1	2	3	4	5
GLOB	3. I think about what I know to help me understand what I read	1	2	3	4	5
GLOB	4. I preview the text to see what it’s about before reading it	1	2	3	4	5
SUP	5. When text becomes difficult, I read aloud to help me understand what I read.	1	2	3	4	5
SUP	6. I summarize what I read to reflect on important information in the text.	1	2	3	4	5
GLOB	7. I think about whether the content of the text fits my reading purpose	1	2	3	4	5
PROB	8. I read slowly but carefully to be sure I understand what I’m reading.	1	2	3	4	5

SUP	9. I discuss what I read with others to check my understanding	1	2	3	4	5
GLOB	10. I skim the text first by noting characteristics like length and organization.	1	2	3	4	5
PROB	11. I try to get back on track when I lose concentration.	1	2	3	4	5
SUP	12. I underline or circle information in the text to help me remember it.	1	2	3	4	5
PROB	13. I adjust my reading speed according to what I'm reading.	1	2	3	4	5
GLOB	14. I decide what to read closely and what to ignore	1	2	3	4	5
SUP	15. I use reference materials such as dictionaries to help me understand what I read	1	2	3	4	5
PROB	16. When text becomes difficult, I pay closer attention to what I'm reading	1	2	3	4	5
GLOB	17. I use tables, figures, and pictures in text to increase my understanding.	1	2	3	4	5
PROB	18. I stop from time to time and think about what I'm reading.	1	2	3	4	5
GLOB	19. I use context clues to help me better understand what I'm reading.	1	2	3	4	5
SUP	20. I paraphrase (restate ideas in my own words) to better understand what I read.	1	2	3	4	5
PROB	21. I try to picture or visualize information to help remember what I read.	1	2	3	4	5
GLOB	22. I use typographical aids like boldface and italics to identify key information.	1	2	3	4	5
GLOB	23. I critically analyze and evaluate the information presented in the text.	1	2	3	4	5

SUP	24. I go back and forth in the text to find relationships among ideas in it.	1	2	3	4	5
<hr/>						
GLOB	25. I check my understanding when I come across conflicting information.	1	2	3	4	5
<hr/>						
GLOB	26. I try to guess what the material is about when I read.	1	2	3	4	5
<hr/>						
PROB	27. When text becomes difficult, I reread to increase my understanding.	1	2	3	4	5
<hr/>						
SUP	28. I ask myself questions I like to have answered in the text.	1	2	3	4	5
<hr/>						
GLOB	29. I check to see if my guesses about the text are right or wrong.	1	2	3	4	5
<hr/>						
PROB	30. I try to guess the meaning of unknown words or phrases.	1	2	3	4	5
<hr/>						

APPENDIX B

Metacognitive Awareness of Reading Strategies Inventory

Metacognitive Awareness of Reading Strategies Inventory

SCORING RUBRIC

Student Name: _____ Age: _____ Date: _____
 Grade in School: 6th 7th 8th 9th 10th 11th 12th College Other

-
1. Write your response to each statement (i.e., 1, 2, 3, 4, or 5) in each of the blanks.
 2. Add up the scores under each column. Place the result on the line under each column.
 3. Divide the score by the number of statements in each column to get the average for each subscale.
 4. Calculate the average for the inventory by adding up the subscale scores and dividing by 30.
 5. Compare your results to those shown below.
 6. Discuss your results with your teacher or tutor.
-

Global Reading Strategies (GLOB Subscale)	Problem-Solving Strategies (PROB Subscale)	Support Reading Strategies (SUP Subscale)	Overall Reading Strategies
1. _____	8. _____	2. _____	GLOB _____
3. _____	11. _____	5. _____	PROB _____
4. _____	13. _____	6. _____	SUP _____
7. _____	16. _____	9. _____	
10. _____	18. _____	12. _____	
14. _____	21. _____	15. _____	
17. _____	27. _____	20. _____	
19. _____	30. _____	24. _____	
22. _____		28. _____	
23. _____			
25. _____			
26. _____			
29. _____			

_____ GLOB Score _____ PROB Score _____ SUP Score _____ Overall Score
 _____ GLOB Mean _____ PROB Mean _____ SUP Mean _____ Overall Mean

KEY TO AVERAGES: 3.5 or higher = High 2.5 – 3.4 = Medium 2.4 or lower = Low

INTERPRETING YOUR SCORES: The overall average indicates how often you use reading strategies when reading academic materials. The average for each subscale of the inventory shows which group of strategies (i.e., global, problem-solving, and support strategies) you use most when reading. With this information, you can tell if you are very high or very low in any of these strategy groups. It is important to note, however, that the best possible use of these strategies depends on your reading ability in English, the type of material read, and your purpose for reading it. A low score on any of the subscales or parts of the

inventory indicates that there may be some strategies in these parts that you might want to learn about and consider using when reading (adapted from Oxford 1990: 297-300).

APPENDIX C

Categories of Reading Strategies Measured by the Metacognitive Awareness of Reading Strategies Inventory

**Categories of Reading Strategies Measured by the Metacognitive Awareness
of Reading Strategies Inventory**

Global Reading Strategies

Examples include setting purpose for reading, activating prior knowledge, checking whether text content fits purpose, predicting what text is about, confirming predictions, previewing text for content, skimming to note text characteristics, making decisions in relation to what to read closely, using context clues, using text structure, and using other textual features to enhance reading comprehension. (Items 1, 3, 4, 7, 10, 14, 17, 19, 22, 23, 25, 26, 29)

Problem-Solving Strategies

Example include reading slowly and carefully, adjusting reading rate, paying close attention to reading, pausing to reflect on reading, rereading, visualizing information read, reading text out loud, and guessing meaning of unknown words. (Items 8, 11, 13, 16, 18, 21, 27, 30)

Support Reading Strategies

Examples include taking notes while reading, paraphrasing text information, revisiting previously read information, asking self questions, using reference materials as aid, underlining text information, discussing reading with others, and writing summaries of reading (Items 2, 5, 6, 9, 12, 15, 20, 24, 28)

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(Mokhtari & Reichard, 2002)

APPENDIX D

Comprehension Test One: Just Married

Comprehension Test One:

Just Married

Considering their wedding cost over \$20,000 and took a year and a half to organize, you would be surprised to hear that Richard and Victoria Hammond now intend to forget it. Well, almost.

"It was a wonderful wedding, an unbelievable day," says Victoria. "But we have so much we want to do together now, we are both looking to the future." **Her** husband, banker and amateur race driver Richard, agrees. "Both our minds are now fixed firmly on the future. I'll never forget our wedding ceremony or the reception we had at a cliff-side hotel afterwards, but there's so much we want, so many hopes. Our marriage is so much more important than the wedding."

"At the moment, we are still living with my parents," explains Victoria, "so our first wish is to find our own place. We intend to start looking for a new house with all the modern conveniences in the suburbs in the new year." Both Victoria and husband Richard have a lot of siblings. Do they intend to add to the extended Hammond family? "We plan on having two or three children ourselves," Richard tells me. "Victoria is just wonderful with children and I can get 3 years paternity leave from my work, which is just perfect."

The young couple has just returned from a two-week honeymoon spent in an authentic Scottish castle. Both the newly-weds are big travel lovers and Richard hopes this will continue. "I would like to go travelling as much as possible together. Travelling with someone else is such a sharing experience. I think it's sad to experience all the wonderful places in the world and have no-one else there." Victoria also has another great travel ambition that she might have to do alone. "I have always been fascinated by safari and my real wish is to go on safari. Richard has no interest in wildlife though."

And what about the marriage itself? In a world with such a high divorce rate, how do Richard and Victoria hope to avoid all **its** problems that bother so many other couples? Richard explains thoughtfully that "our ambition is to always talk to each other. If you stop communicating, what chance do you have?" His wife goes along with that completely. "I hope that we can speak about things, but also not expect everything to be easy. I think many people expect the wedding to be the end of getting to know each other. I think it's the start."

(Retrieved from <http://www.esl-lounge.com/student/reading/2r5-just-married.php>)

I. Comprehension Questions

Note: BASE YOUR ANSWERS ON THE TEXT

A. Are these statements true or false? Circle T or F (4 points)

1. Victoria and Richard have been married for about a year and a half. **T / F**
2. Victoria wants an old house. **T / F**
3. They both have many brothers and sisters. **T / F**
4. Both Victoria and Richard think that talking about issues can help avoid problems. **T / F**

B. What do the following words refer to? (2 point)

Her (paragraph 2): _____

its (paragraph 5): _____

C. Answer these questions. (4 points)

1. What did Victoria and Richard always want to do? What other plans did they have after the wedding?

.....

2. Why might Victoria go on a safari alone?

.....

3. What is Richard's job?

.....

4. Where did the young couple spend their honeymoon?

.....

APPENDIX E

Comprehension Test Two: Volunteers and Charitable Collections

Comprehension Test Two:

Volunteers and Charitable Collections

It is not uncommon in America for a person to belong to some kind of volunteer group. Donating one's time and services is very much a part of the American way of life. Much of this charitable activity is organized by churches and civic groups around the nation and even encouraged by the government. The helping hand is extended to the poor, the homeless, the underprivileged and the handicapped. Some people work to teach youngsters how to read, others open up soup kitchens to feed the homeless and maintain day care centers for children of working mothers. Volunteers are also sought to take care of the handicapped by making reading tapes for the blind and working in orphanages to help children without parents.

It appears that this willingness to give and share without calculating the cost becomes most evident around the holiday season when a spirit of goodwill extends deep into the hearts of all people.

High school students are often encouraged to become volunteers and many school club activities center around volunteer services. Students may work with handicapped children during a summer program, or participate in a club activity which helps to bring meals to senior citizens who are shut-ins. With their sense of idealism students are often eager to donate **their** spare time. They see such activities as a way of becoming involved in the community and the adult world. Social action for them becomes as important as their academic studies.

In a like manner, throughout the year, fund raising drives are conducted by schools and community groups to raise money for a designated worthy cause. Dance marathons, raffles and church bazaars help to rally a group around a needy project to gather funds. Many Americans respond to a recent earthquake in a foreign country, a flood somewhere within their own, or another natural disaster which has left people without homes. **They** organize drives to collect food, clothing and medicines to serve an immediate need.

This call to assist those less fortunate than themselves comes from the humble origins of the American nation. Those immigrants who were poor became dependent on the kindness of their neighbors to make a new life for themselves.

This desire to help others without calculating the cost can even be worked out within the framework of the Peace Corps. Established back in the 1960s during the

Kennedy Administration the Peace Corps remains alive and vibrant even today.

Volunteers work throughout the world in lesser developed countries helping local governments in fields as diverse as education, agriculture and animal husbandry.

(Retrieved from

<http://webpace.webring.com/people/bc/call4allus/volunteercollections.htm>)

I. Comprehension Questions

Note: BASE YOUR ANSWERS ON THE TEXT

A. Are these statements true or false? (4 points)

1. Volunteering in America is very common. **T / F**
2. Volunteering is about helping the poor people only. **T / F**
3. In the past, the immigrants were supported by their neighbors. **T / F**
4. Americans do not help or volunteer in other countries. **T / F**

B. What do the following words refer to? (2 point)

their (paragraph 3): _____

They (paragraph 4): _____

C. Answer these questions. (4 points)

1. What can students do to volunteer?

.....

2. During which time of the year is volunteering evident?

.....

3. How can volunteers help blind people?

.....

4. When was the Peace Corps established?

.....