changing self-efficacy beliefs results in improved reading achievement. Studies by Pintrich and his colleagues (Pintrich & De Groot. 1990; Pintrich, Roeser. & De Groot. 1994; Pintrich & Schrauben. 1992) found that cognitive strategy use and aspects of motivation such as goal orientation and self-efficacy affect selfregulated learning in classrooms. Paris and aka (1986) have found that self-perceptions of ability in elementary school children were positively related to their reading comprehension, metacognitive knowledge about reading, and reading achievement. In the current study the opportunity was provided to investigate both metacognitive knowledge about memory and metacognitive knowledge about reading alongside each other. Furthermore, these two elements are investigated in relationship to motivation. Two aspects of an individual's motivation are examined in this study: self-concept of reading ability and personal interest in reading. Self-concept is a general term that describes the ability to make a cognitive appraisal - a self-assessment - of one's achievement and learning. Most studies that have examined self-concept have used general measures of selfconcept (e.g., Harter. 1981; Pintrich & De Groot. 1990) or measures of academic self-concept (Boersma & Chapman. 1992). However, there has been a call for investigators of self-concept to pay attention to research that has pointed to the domain-specific nature of the construct (Faber. 1992), and to use domain-specific measures of self-concept in their research (Chapman & Tunmer. 1995).

Strategies should be directly taught to students who have learning problems. The use of explicit teacher modeling is the most effective way to ensure that these students will understand the purpose of a metacognitive strategy, how to use it, and under what circumstances it should be used (Lenz, Ellis. & Scanlon.1996). Providing

students with practice opportunities using the metacognitive strategy is also an important component of metacognitive strategy instruction. It is also very helpful to provide students visual cues of the strategy in the classroom. The strategy can be posted on classroom walls or on a bulletin board; strategies can also be written on individual cue sheets. Students can then keep them at their desk or in their math folder. Some students may also benefit from keeping a notebook that contains all of the math strategies that student has learned. This "strategy notebook" can be organized by math concept/skill and could be used by the student as a resource when they are working independently in class or at home. While such cueing is very helpful for students who have learning problems initially, many students begin to internalize the strategy with continued practice. However, other students may need their strategy notebook for longer periods of time due to significant memory problems.

Important Tips for Implementing Metacognitive Strategies

1. Strategies should be implemented after the student has acquired an understanding of the concept/skill.

2. Strategies must be taught, using explicit systematic instruction.

3. Strategies provide students the opportunity to practice independently, which, in turn, builds fluency and mastery of the skill.

4. Strategies can be especially helpful for students who are having difficulty moving from the representational level of understanding to the abstract level of understanding because they allow students to independently practice problem solving at the abstract level. Successful practice provides the repetition students often need to establish a working memory of the concept or skill.

5. Student use and performance using strategies should be monitored.

6.   Strategies, in and of themselves, are not magic. It is how you teach them and incorporate their use in your students' learning that is key.

2.8 Reading Comprehension

Although the primary goal for any reader is to construct meaning or gain understanding, there are a number of tools and/or strategies that a reader may employ to achieve this end result (Reven. 2007). Comprehension is a consuming, continuous, and complex activity, but one that, for good readers, is both satisfying and productive (Piyanukool. 2001; Farstrup, Samuels. & Samuels. 2002).

Not only is comprehension critical in a language arts classroom, but it is necessary for all academic courses and transcends the walls of a school building into the everyday life of the reader. The ability to read is not only fundamental for understanding and mastery of every school subject students will encounter, but literacy also plays a critical and crucial role in students' social and economic lives. With such an emphasis placed on the importance of reading achievement, educational leaders must clearly articulate the expectation that all students become successful readers, while providing effective strategies to help them succeed (Melton, et. al. 2004).

While there is much about a student himself which affects his ability to comprehend, so too are there features about the material he is reading that enter into and further complicate the picture. How the material is written, the complexity of ideas, the rate at which they are being presented, and the vocabulary chosen to express them enter every situation of successful or unsuccessful comprehension (Durkin. 1970). More difficult vocabulary often limits or impedes upon a student's

comprehension. Text with unclear transitions and dense information requires more reading skill and may also have an affect on reading comprehension. Finally, when text is organized clearly with subheadings or categories, reading comprehension is positively effected, as a student may be able to segment difficult text into smaller sections (Piyanukool. 2001).

Balanced comprehension instruction includes both explicit instruction in strategies and a great deal of time and opportunity for actual reading, writing, and discussion of text (Farstrup, Samuels, & Samuels. 2002). The idea behind reading comprehension strategy instruction is that reading comprehension can be improved by teaching students to use specific cognitive strategies or to reason strategically when they encounter barriers to comprehension when reading (Farstrup, Samuels, & Samuels. 2002). Examples of specific strategies include reciprocal teaching, graphic organizers such as story maps and KWL charts, thinking aloud, repeated reading, questioning the author (QTA), summarizing, generalizing, predicting outcomes, comparing and contrasting, making inferences, and drawing conclusions.

Readers comprehend text by acquiring meaning, confirming meaning, and creating meaning. There are five reasons why it is critical that students learn to become strategic comprehenders:

1. Strategies enhance the reader's ability to elaborate, organize, and evaluate information contained in the text.

2. As students become more strategic readers, they learn strategies for enhancing attention, memory, communication, and learning.

3. Acquiring a larger repertoire of strategies enables students to be more independent in their own learning.

4. Strategic processing supports metacognitive development and motivation because students need both in order to become proficient at strategy implementation.

5. Strategy use helps students to be more successful across all areas of the curriculum (Whitaker, Gambrell, & Morrow. 2004).

Reading is both an acquired taste and an acquired skill (Anderson. 2000; Piyanukool. 2001). Part of acquiring a taste for reading is learning to comprehend the text that is being read. There are many factors that affect a student's reading comprehension, including socioeconomic status, racial and ethnic status, and parental involvement. Recent research has suggested that the students who are most likely to experience reading difficulties throughout their school years are those who attend a low achieving school, have limited English proficiency, are unfamiliar with standard English dialect, or live in communities of poverty (Reis et. al. 2007).
The composition of a student's community, combined with resources available within their school, contribute greatly to the student's reading potential (Binkley & Williams. 1996). Parental involvement in schools and instructional time weigh in on reading comprehension, as well. More exposure to literature develops vocabulary, a key element in reading proficiency. More exposure to vocabulary and prior knowledge develops comprehension. In short, reading begets reading (Piyanukool. 2001; Johnson & Howard. 2003).

Fluency also has an impact on a reader's comprehension. The scientific basis for current emphasis on reading fluency can be partially traced to the automaticity and verbal efficiency theories. Both theories highlight the harmful effects of inefficient skills on comprehension and maintain that if reading individual words demands too much attention, little remains for higher level comprehension (Walczyk & Griffith-

Ross. 2007). Readers can, however, overcome poor reading fluency. Slowing a student's reading rate to prevent further confusion, for example, or allowing less skilled readers to pause longer, can help students resolve some of their reading difficulties. A student's reading rate is key in aiding comprehension. The more effortlessly a student can recognize words, the more attention they can devote to comprehension. The more time a student spends reading, the better their reading rate (O'Connor, White. & Swanson. 2007). Other answers to the fluency dilemma are strategies like reading aloud, rereading texts, sounding out, or analogizing words with what they already know (Walczyk & Griffith- Ross. 2007).

The reader's prior knowledge plays a key role in whether or not a student comprehends text. Constructivist theory generally assumes that an individual processes or interprets experience based on previous experience or knowledge. In general, as a reader reads and remembers a text, he or she attempts to create a coherent mental representation by integrating text information and by elaborating on the text with prior knowledge about the world (Whitaker, Gambrell. & Morrow. 2004). It is important that teachers understand and celebrate what each individual student brings to the reading experience if they expect to motivate students to read and increase their reading confidence.

The relation of comprehension to the reader's purpose and to the material being read provides a way of thinking about comprehension that relates it directly to classroom instruction. Therefore, one definition of comprehension can be defined as the fulfillment of a particular purpose through the use of appropriate material which is read in a particular way (Durkin. 1970; La-ongthong. 2002). The social context influences what one reads, how one reads, and why one reads (Whitaker, Gambrell. &

Morrow. 2004). It is important, therefore, that teachers address this issue by making reading relevant to students and establishing a purpose for reading text.

Quite a bit goes on when good readers read. The good reader is always monitoring and always aware of the characteristics of the text. The good reader monitors problems during reading, including loss of attention, words that are not known, or text that does not seem to make sense. Good readers evaluate text as they read, and sometimes reread selectively upon finishing the text. Becoming a good reader requires practice reading and constant exposure to text (Piyanukool. 2001; Block & Pressley. 2002). Practice might not always perfect a student's comprehension abilities, but it seems to be essential even for rather modest achievement (Durkin. 1970). Without having comprehension strategies modeled for them, readers would not know how to monitor their comprehension.

In summary, reading comprehension the ability to understand what we read, where word have context and texts have meaning. Reading comprehension skills are based on earlier stages of reading development, including oral reading and reading speed. Without developing these earlier reading skills, the readers must continually focus on decoding letter, reading speed and critical thinking about the texts.

2.9 Metacognitive Strategies in Reading

Metacognitive strategies are regarded as a part of the effective strategies that enhance learners' reading ability (Cohen. 1998). To be able to read effectively and intelligently, students need to refine their reading ability by integrating their prior knowledge, language proficiency, and metacognitive strategies with the understanding of words and sentences in a text (Hammadou. 1991). Metacognitive strategies involve

thinking about what one is doing while reading, checking the outcome of problem

solving techniques, planning how to use an effective strategy, controlling the

effectiveness of an action plan, testing, revising, and evaluating one's learning

strategy (Block. 1992; Salataci & Akyel. 2002). These strategies should play their

roles in reading tasks as they can help learners plan, organize or control, and evaluate

or remediate the reading process (Chumpavan. 2000; Cohen. 1998; Li & Munby.

1996; Urquhart & Weir. 1998).

According to Keene and Zimmerman (1997), there are eight metacognitive

strategies. First, experienced readers will prepare an action plan while they are

reading. That is, they are aware of their own thinking and understanding. In-depth

readers concentrate on their own thinking process and can select strategies before,

during, and after their reading. Then, these experienced readers will gather knowledge

from their past experiences, habits, beliefs, events, and situations concerning society

or the world in general to create connections with reading texts in order to access

them more easily.

Second, experienced readers will try to understand the important part of a

reading text. While reading, they constantly evaluate the importance of a text at three

levels of understanding: the word level, the sentence level, and the paragraph level

(Alderson. 2000).

Next, experienced readers use self-questioning. They ask themselves questions

before, during, and after the reading of a text in order to ascertain its meaning, support

their understanding, and guess its content.

Additionally, experienced readers often draw up pictures in their mind using

the five senses (sight, hearing, touch, smell, and taste) to promote emotions while they

are reading. They use this strategy in reading short stories to imagine the characters. Moreover, according to Anderson (2000), experienced readers can combine the important information in the reading text with their personal background knowledge to create inference beyond a written text. Retelling or synthesizing the reading text using the reader's own words is also important in a reading process. When experienced readers read, they gain information, think about it, and express the author's meaning with their own words (Flemming. 1997).

Finally, experienced readers use a variety of fix-up strategies to remediate reading problems and extract meaning from a text (Duffy & Roehler. 1993). The fix-up strategies include inferring, asking questions, determining importance, and synthesizing. These strategies help experienced readers to better comprehend what they are reading in business texts.

2.10 Metacognition in Reading Comprehension

Flavell (1979) describes metacognition in his classic article "Metacognition and Cognitive Monitoring". Metacognition generally refers to "the knowledge and control that we have over our cognitive processes" (Grabe. 2009: 222). In reading, "it entails awareness of one's own understanding and nonunderstanding, of reading strategies, and of monitoring comprehension during reading" (Fitzgerald. 1995: 150). Metacognition simply refers to awareness of one's own reading processes (Brown. 1980).

Recently metacognition or metacognitive awareness has been regarded as critical for improving learners' performance in language learning, particularly reading comprehension (Alexander & Jetton. 2000; Guthrie & Wigfield, 1999; Pressley. 2000,

2002; Pressley & Afflerbach. 1995). Baker (2002) claims that increasing language learners' awareness of how, when, and why to use reading strategies that regulate their comprehension is a critical factor of reading comprehension instruction.

Researchers have monitored reading comprehension of skilled and unskilled readers and recognized the importance of metacognitive awareness in reading comprehension. For example, Pressley and Afflerbach (1995) examined 38 studies on native English speakers' reading and concluded that proficient readers are strategic and "constructively responsive" and take conscious steps to comprehend what they are reading. Pressley (2002) points out that the metacognitively sophisticated reader knows comprehension strategies, knows how to use them, and uses them frequently.

The importance of metacognition has been recognized in L2 reading as well as in L1 reading. Researchers in L2 reading empirically showed that learners' metacognitive awareness of strategy use influences their comprehension. Barnett (1988) found that the subjects' awareness of strategy use significantly correlated with their actual use of strategies and with reading comprehension. Carrell, Pharis and Liberto (1989) found a significant relationship between the metacognitive perceptions about L2 reading strategies and reading comprehension of college L2 readers. Particularly, Carrell, Pharis and Liberto (1989) showed in their study that the ESL readers who were more aware of the utility of "global" strategies (i.e., concerning background knowledge, text gist, and textual organization) demonstrated better comprehension of the text than those who were more aware of the utility of "local" strategies (i.e., concerning sound-letter, word-meaning, and text details). Schoonen, Hulstijn, and Bossers (1998) found that Dutch EFL students' metacognitive knowledge of reading strategies contributed significantly to their L1

and L2 reading.

Evidently, Carrell, Gajdusek and Wise (1998:100) states, "If learners are not aware of when comprehension is breaking down and what they can do about it, strategies introduced by the teacher will fail". That is, readers' awareness of their own comprehension in reading is a crucial factor in using reading strategies, which leads to successful reading comprehension.

In summary, as documented by many research studies (e.g., Brown. 1980; Flavel. 1979), high reading proficient students appear to utilize more metacognitive strategies than low reading proficient students and appear to use them more frequently. Broadly perceived, high reading proficient students have an enhanced metacognitive awareness of their own use of strategies, which in turn contributes to greater reading ability and proficiency.

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2.12 The Roles of Metacognition in Reading Comprehension

The emergence of metacognitive theory began in the 1970s. John Flavell's pioneering work helped to give form to the concept and provided an impetus for further study (Hacker. 1998:2). The belief that metacognitive awareness has an effect on reading and reading comprehension is not new but in the past decades, research has greatly enhanced our understanding of not only cognitive processes, but also metcognitive strategies involve in reading. These are understood as: "Planning, checking and evaluating" (Baker & Brown. 1984: 354) and "self-regulated reading" (Paris. 1984:619.). Paris claimed that any attempt to comprehend must involve comprehension monitoring and metacognitive self-regulated reading. This monitoring system works more effectively when readers have metacognitive awareness (Anderson. 1994). Good readers who are metacognitively aware will have knowledge of what is effective reading, and what makes reading difficult. They will also have knowledge about what reading strategies are available, how they function, when they should be applied and why they help comprehension (Paris. 1984). Research also shows that effective readers who are metacognitively aware constantly check to make

sure new information is consistent with what has already been learned. Often this monitoring process and the construction of meaning occur unconsciously until the reader detects a difficulty in understanding. When this happens, readers encounter a failure in comprehension and encounter words that they don't know, they will select the newest, most productive cues to produce guesses (Anderson.1994:138). While these guesses are being made the reader will attempt to relate or connect the new information with schema that already exists. Meaningful reading takes place when already-known ideas subsume or anchor the new information found in the text with the schema that has already been created by the reader (Anderson. 1994: 258). In order to do this effectively, the reader has to be aware of which aspects of his or her knowledge are relevant. If readers are not metacognitively aware of what knowledge they have, then they will not effectively connect this new information with the old and so will fail to comprehend the text. It is during this monitoring that greater metacognitive awareness can aid comprehension. Equally, important is the development of an internal monitoring system (Almasi. 1995: 317). Metacognition facilitates self-regulated reading (Paris. 1984), and this monitoring system occurs more effectively when readers have metacognitive awareness (Anderson. 1984). During comprehension monitoring, good readers who are metacognitively aware will check to make sure new information that is found while they are reading is consistent with the information they already have (Anderson. 1994). If the new information is not consistent with what the reader is expecting, he or she will either reject the new information or modify the old (Anderson. 1984). If readers have not developed metacognitive awareness of the reading process and are unable to regulate their own comprehension or understanding, then amending their interpretation becomes difficult

and reading comprehension can suffer (Almasi. 1995: 317).

Clearly, metacognition combines various thinking and reflective processes. It plays a large role in reading comprehension. Anderson (1994) summarizes five primary components in the following:

1. Preparing and Planning for Learning

During the pre-reading phase, metacognition is used to actively reflect on the use of prior knowledge as a basis for forming predictions and questions about what is to be read. Metacognition directs cognitive activity in clarifying the purpose for reading and selecting effective reading strategies.

2. Selecting and Using Learning Strategies

During the reading phase, students' metacognitive strategies direct the monitoring of reading comprehension, constructing mental notes and images about important information, posing and attempting questions, revising predictions, assessing attitudes toward the task and making adjustments to increase understanding.

3. Monitoring Strategy Use

In the post-reading phase, metacognition triggers reflection on the reading material and the recall of key ideas and details to summaries the text. Appropriate strategies may be selected if reflection identifies gaps in understanding.

4. Orchestrating Various Strategies

When students are struggling in reading, they need the ability to coordinate, organize, and make associations among the various strategies available in order to avoid a breakdown.

5. Evaluating Strategy Use and Learning

Reading is not a linear process but rather a cyclic process. It is important to

encourage readers to think about and evaluate what reading strategies are successful
or unsuccessful. This helps readers develop independence in reading based on
personal insight. It also builds flexible and confident problem solving, and
encourages self-efficiency and pride. Metacognition plays a crucial role in reading.
It involves not only planning for learning, selecting and using a wide range of
strategies but also orchestrating various strategies in order to solve reading problems.
Only readers who are aware of these metacognitive strategies while reading, can use
flexible problem solving and comprehend the text efficiently.

2.13 Challenges and Limitations of Metacognition

Paris (1983) states that the importance of metacognition and strategic reading
is evident in the tactics readers use to monitor comprehension. However, relying on
metacognitive awareness to improve reading comprehension has its challenges and
limitations (Paris. 1984), because a number of factors can influence the reader's
ability to self-monitor and comprehend texts. Paris (1990) summarizes five factors
that might interfere with a person's ability to effectively monitor and understand a
text. They are: 1) the reader's age; 2) learner characteristics; 3) lack of general
background knowledge; 4) lack of knowledge about the reading process and reading
strategies; and 5) the nature of the reading material.

Research suggests that knowledge of cognition is stable, and late developing
and that the age of a person can have an effect on a person's metacognitive awareness
and ability to monitor and control reading (Hacker. 1998: 167).

A second set of factors that might limit a reader's ability to comprehend and
control his or her own construction of meaning has been described by Otero (1998) as

learner characteristics. These characteristic might include the learners' conceptions and self-perceptions of their own ability, their motivation and orientation, and their verbal skill and ability to generate inferences (Otero. 1998). If readers approach reading with low expectations for suffices, they might experience anxiety and an unwillingness to persevere when they encounter difficulties in their reading (Paris. 1984).

A third factor that limits a reader's ability to comprehend and control his or her own construction of meaning is a lack of background knowledge needed to interpret a text. Readers will struggle to comprehend a text if they have limited knowledge of the content of the book. They will also struggle if they do not have knowledge of the specific linguistic features that are needed in order to make sense of the words and sentences found on a page. And if readers are lacking appropriate cultural knowledge, this will limit their background knowledge, and they will be missing the appropriate schema that is needed in order to link new information with the old, and comprehension will be difficult (Baker & Brown. 1984).

A fourth factor that might limit a reader's ability to comprehend and control his or her own construction of meaning is a lack of knowledge of the reading process and of reading strategies. Readers need an awareness of the conventions of print and the nature of reading (Paris. 1984: 616). If student have a lack of knowledge about reading strategies and if they cannot apply them while reading, then they will struggle to monitor their own reading and understanding of a text.

A fifth factor that might make reading comprehension difficult, even if the reader is metcogntively aware and skilled at self-monitoring, is the nature of the material (Otero. 1988). If the author does not provide enough clues and does not

make relationships clear, then the reader will have difficulty understanding regardless of whether or not he or she has realized that a comprehension failure has occurred (Baker & Brown. 1984). If this happens, a reader might have difficulty comprehending a text regardless of the metacognitive strategies that he or she possesses. Effective reading is affected by many factors. The more we understand these factors, the better able we are to successfully complete and master reading tasks.

In conclusion, understanding some reading theories, approaches, processes as well as cognitive and metacognitive reading strategies while reading is very important and useful. These models help readers to have new insight into how the reading is going, and to figure out what thinking process is most effective, and how to monitor, evaluate and self-regulate strategies in order to read efficiently. Furthermore, understanding the challenges and limitations of metacognition helps instructors select appropriate pedagogical models in reading instruction and to improve the quality of language teaching.

2.14 Classifications of Text

Texts are described and classified in many different ways. Most of these classifications are based on the perceived general rhetorical goals of the text, i.e. the writer's purpose of writing the text. Some common discourse types include description, exposition, persuasion, literary-poetic. Brooks and Warren (1970) propose a classification made up of four types of discourse, namely, exposition, argument, description, and narration. This classification is based on four basic natural needs that are fulfilled in writing. They are: the need to explain or inform about something, to convince somebody, to tell what happened. Each need represents an

intention that is fulfilled in a particular kind of discourse.

Another classification is put forward by D'Angelo (1976). This classification categorizes text into four types: expressive, persuasive, literary and referential. Similar to Brooks and Warren's classification, this system is based on the intention of the writer.

Despite the fact that many writers feel the need of making a distinction between different types of text, in particular, the distinction between narratives and expository text, Spiro and Taylor (1980) have argued that characteristics of each type of text may not be as clear cut as what has been claimed. A narrative text may contain characteristics of exposition and vice versa. Spiro and Taylor (1980) have argued that the traditional text-type classification should be abandoned in the study of reading difficulty. Instead, texts should be classified as a function of the characteristics that influence processing. Britton et. al. (1982) also made a similar to that of Spiro and Taylor (1980). Although narrative texts and expository texts are always considered to be quite different from one another, the rhetorical devices available to the author are quite similar. Three of these devices are of information, selection of degree of details to be included in the text and explicitness of the narrator in the text. Though different terminology may have been used in the different classification systems, expository text is taken as a type of text different from other text types. Its main purpose is to inform about or explain something rather than to convince readers of certain viewpoints. The present study sees the need of adding another restrictive feature to the definition of explained is assumed to be new to the target readers (Richgels, McGee & Slaton. 1989). After reading the text, readers will add new information to their knowledge or modify a piece of information already in

their knowledge store. Prose in content textbooks, for example, is a typical example of expository prose. Review of these different systems for classifying texts indicates that expository text is recognized as a text on its own right with its characteristics and functions. It follows that expository text will be structure in way different from that of other text types.

2.14.1 Expository Text Comprehension

Expository texts primarily convey factual information (Weaver & Kintsch. 1991; Piyanukool. 2001). This type of text generally contains more unfamiliar vocabulary and concepts, fewer ideas related to a student's personal experience, and a variety of text structures. Students encounter expository text in textbooks, newspapers, trade books, magazines, and Internet resources that they read on a daily basis.

When students reach upper elementary and middle grades, reading demands on them increase. They move away from narrative texts that they have become very comfortable with in primary grades toward more complex expository texts found in textbooks. The reading emphasis changes from "learning to read" to "reading to learn" (Chall, Jacobs & Baldwin. 1990). Researchers have found that middle-grade students spend about 90% of their homework time and 75% of their class time engaged in textbook-related learning (Katims & Harmon. 2000; Venezky. 2000). Reading comprehension becomes increasingly important in many subject areas with information from expository texts becoming the student's primary source of knowledge (Smagorinsky. 2001).

Students not only face a large percentage of expository selections in classroom reading, but also on standardized reading assessments (Calkins et. al. 1998). The data

indicate that students generally have reading skills needed to perform simple reading tasks, but very few are able to comprehend more complex content-related selections (Anderson & Armbruster. 1986; Brozo & Simpson. 2002). Many factors can contribute to a student's difficulty with expository text. A student may lack the ability to identify the structure of the text, or lack the prior knowledge needed for understanding. The concepts presented in the text can be so dense, or the vocabulary can be completely unfamiliar. A student may spend so much time trying to "plow" through the words that there is no energy left to figure out the main idea (Dymock. 1998; Dymock & Nicholson. 1999).

Although students are required to use content-area reading sources in the middle grades, they do not seem to have the reading skills and strategies needed for comprehension. Expository material is especially difficult for students who struggle with reading (Saenz & Fuchs. 2002). Students need meaningful experiences with teachers engaged in using effective reading comprehension strategies with expository texts.

2.14.2 Expository Text Structures

Expository texts are texts which are meant to communicate information so that the reader might learn something (Brooks &Warren. 1970; Weaver & Kintsch. 1991). In expository writing there are some predominant ways of organizing the presentation of information and ideas. These are called text structures (Meyer & Rice. 1984; Anderson & Armbruster. 1986; Piyanukool. 2001). Meyer and Rice (1984) refer text structure to how the ideas in a text are interrelated to convey a message to a reader. Text structure specifies two kinds of connection: the logical connections among ideas and subordination relations of some ideas to others.

Additionally, the expository text structure is designed to inform or explain information to help readers learn something new. Students must perform fairly complex cognitive tasks to extract, summarize, and synthesize the content of expository text, as it has a greater variety of text structure and unfamiliar vocabulary (Gersten et. al. 2001; Mastropieri et. al. 1996; Pressley. 2000; Saenz & Fuchs. 2002). Textbooks, newspapers, magazine articles, and manuals are examples of expository text. Evidence indicates that for most students, expository reading poses a greater challenge than does narrative reading (Berkowitz & Taylor. 1981; Taylor & Beach. 1984; Horton & Lovitt. 1994; Saenz & Fuchs. 2002).

Furthermore, Englert and Hiebert's (1984) research provides the basis for three major conclusions concerning text structure and comprehension of expository text: 1) awareness of text structure is acquired developmentally; 2) skill at discerning text structure, and then using it, seems to be important for comprehension of expository text; and 3) some text structures are more obvious and easier for readers to comprehend. Gersten et. al. (2001) state the major method for enhancing student comprehension of expository text is strategy instruction, which is based on the assumption that readers must cope with a broad range of text. The focus of strategy instruction is to improve how students attack expository material to become more deliberate and active in processing it.

In this review of literature, metacognition of English reading comprehension has been defined by various groups and individuals who all agree that it is an active and complex process. It is not a product, but a process involving an interaction that

occurs between the text, the reader, and the context. A student's ability to comprehend what is read can significantly impact their success in school and life.

2.15 Previous Researches Regarding Students' Metacognitive Awareness of English Reading Strategies

Since the early seventies, some research in the area of reading has concentrated on strategies that facilitate better reading. The use of various strategies has been found to be effective in improving students' reading comprehension (Brown & Baker. 1983; Baker & Brown. 1984). Some researchers have also investigated the reading strategies of successful and unsuccessful second language learners. Educators both in foreign countries and in Thailand have conducted studies investigating the effectiveness of metacognitive strategies in reading comprehension. They found that metacognitive strategies influence students' reading proficiency. Hence, central to the following section is a review of previous research studies that have shed light on a series of issues on the nature of metacognitive strategies during the reading process.

Ra-Ngubtook (1993) conducted a study to compare the effectiveness of "direct" and "embedded" metacognitive learning strategy training in English reading comprehension in upper high school students. Direct metacognitive learning strategy training involves traditionally teaching students to improve their metacognitive learning in their daily reading course. Embedded metacognitive learning strategy training also teaches students to improve their metacognitive skills, but by adding metacognitive lessons within the frame of the traditional reading course. Teachers may choose to add metacognitive lessons during group reading activities, or they may decide to do this in a traditional reading course. In this study, both models were used

as training practice for two groups of grade 11 students. The findings showed that both direct and embedded metacognitive training models were not significantly different in raising reading comprehension. However, it was found that the mean scores of the students instructed by the direct training model were higher than those of the students in the embedded training model. This study showed that metacognitive strategies were helpful for improving students' reading proficiency. Therefore, to help students increase their reading comprehension, metacognitive strategies should be investigated.

Li and Munby (1996) performed a qualitative research on metacognitive strategies. The research was conducted with two native speakers of Chinese, one male and one female, both graduate students in the Social Sciences Master's degree program at Queen's University, Canada. The participants were chosen for their low background knowledge of Western social sciences, a constraint that compelled them to use problem-solving strategies when reading. Interviews, think-aloud sessions and journals were used to evaluate these two students' reading comprehension. The study found that, in their reading, the students used personal background knowledge, translation, self-questioning, summarization and prediction. It was also found that one student used key words and the other used Chinese to resolve problems when reading difficult passages. Furthermore, when the passages were hard to think about in English, these EFL students immediately reverted to their own language. Therefore, the researchers concluded that the participants used metacognitive strategies to succeed in their comprehension.

Chumpavan (2000) investigated the metacognitive strategies that two Thai students used in learning English as a foreign language (EFL). These participants had

enrolled in the Bachelor's and Master's degree programs in Communication and Economics at Illinois State University. Interviews, field observation via think-aloud sessions, and the participants' journals were used to gather information on the students' metacognitive reading strategies. It was found that while they were reading, they were also planning, monitoring and remediating their reading comprehension. Therefore, Chumpavan concluded that the participants used metacognitive strategies such as prior knowledge and experience, grammatical knowledge, self-questioning and summarization to facilitate their reading comprehension. She also found that the participants did not use translation in their reading process because it was very time-consuming. Furthermore, unfamiliar words in sentences and paragraphs, and grammatical structure problems were the main reading problems encountered by these participants.

Sheorey and Mokhtari (2001) developed the Survey Of Reading Strategies (SORS) which consists of global, problem solving, and support strategies to discover offline reading strategies used by post-secondary students. They tried to find differences in metacognitive awareness of reading strategies between ESL and college students studying in the United States and native-English-speaking American college students. They also sought to answer whether there were differences based on gender. Results indicated that ESL students reported using a greater number of strategies than did the US students, and that there were no significant differences between the male and female readers in the study. Sheorey and Mokhtari also pointed out those proficient readers were more able to not only select which strategies to use but also monitor the use of such strategies during their reading process. Even though this research study contributes substantially to our understanding of the reading strategies

of second language learners, the data were collected through the SORS which was specifically designed to measure both metacognitive strategies and other strategies, such as cognitive and support strategies. In addition, they did not explain whether or not there were similarities or differences among the students' use of metacognitive, cognitive, and support strategies.

La-ongthong (2002) investigated the study to develop an English reading comprehension instructional model using metacognitive strategies for undergraduate students of Rajabhat Institute Buriram, and to explore the effects the model on students' achievement on the use of metacognitve strategies and their English reading comprehension. There were three phases in this study. The population was a group of the English instructors and undergraduate students. The instruments used included questionnaires, lesson plans, and lesson plans for the instructional model implementation and the model effectiveness assessment. The percentage, mean, standard deviation, and t-test were analyzed. The research revealed that the English reading comprehension instructional model using metacognitve strategies developed by the researcher were 5 components: principals, objectives, content, learning-teaching procedures and evaluation.

Dhieb-Henia (2003) conducted a study to investigate the reading processes of EFL/ESL students while they were reading articles related to biology. Two groups of 34 and 27 students enrolled in biology classes in two science institutions were selected. Institution A was to be the experimental group using metacognitive training. Institution B was the control group, using the control method or traditional teaching. In addition, 12 students from group A were added in retrospection, that is, the action of looking back on the past actions to investigate whether using metacognitive

strategy training was more effective than group B who using traditional training did. All participants were tested by using a tailor-made instrument specially designed by the researcher over material presented in a pre-test and a post-test that framed the training program. The study found that training in the use of metacognitive strategies increased the reading efficiency of the participants.

Phakiti (2003) investigated the relationship between the test takers' use of cognitive and metacognitive strategies in EFL reading test performance. Qualitative and quantitative data analyses were performed in the study. Three hundred and eighty-four students from a northern Thai university were asked to participate. They were tested with 85 multiple-choice questions on reading comprehension in the final examination of the fundamental English course. After the test, 75 students were categorized as highly successful (test score of 70% or above), 256 as moderately successful (test score between 46% and 69%), and 53 as unsuccessful (test score of below 45%). Eight test-takers, four from the highly successful group and four from the unsuccessful group, were then randomly selected to be interviewed after their reading activity. The findings showed that the use of cognitive and metacognitive strategies increased the students' reading test performance. It was also found that highly successful students made use of metacognitive strategies more often than the moderate and unsuccessful test-takers.

Forget (2004) determined the effects that content area reading strategy instruction has on rural secondary students' attitudes toward reading, metacognitive strategy awareness, and reading achievement scores. Students were given the Mikulecky Reading Attitude Survey and the Metacognitive Awareness Strategy Reading Index (Mokhtari & Reichard. 2002) to measure both attitudes toward reading

and student metacognitive strategy awareness. The samples consisted of rural Northwest Ohio high school teachers and students who had been in tenth grade during the 2002-2003 academic year. The findings revealed that teachers' report of using content area reading strategies within their instruction, professional development, and building level support had little bearing on students' attitudes toward reading, metacognitive strategy awareness, or reading achievement scores.

Dolly (2005) investigated how college freshmen mandated into a developmental reading course perceived the reading process, and how these perceptions were affected by developmental reading course intervention, and determined the use of metacognitive reading strategies by students who were required to take a developmental reading course. Through pre-intervention and post-intervention surveys, interviews, note-taking logs and observation of students engaging in the reading process, the study investigated college students' perceptions of the reading process prior to and after course intervention; and metacognitive strategies used in reading text prior to course intervention, during course intervention and after course intervention. Forty-eight college freshmen attending a large university in southeastern Michigan completed the survey which yielded data relative to reading interests, beliefs about the purpose of reading, strategic behavior and early literacy experiences. Four students participated in a case study component of the research by completing think-aloud audiotape recordings of the reading situation, interviews and note-taking logs five times during a 15-week semester. The survey data was analyzed using descriptive statistics. The case study data was categorized and analyzed using an evaluation guide refined by the researcher. The survey data showed that students increased their questioning behavior, and positive perceptions of

themselves as readers. Student responses to one post-survey question indicated a decreased perception about reading as constructing meaning; collectively as evidenced by the other survey responses and the case study data, clearly reading was a meaning making process. By observing student behaviors in authentic study situations, this study provides descriptive data pertinent to the development of less skilled college readers into more skilled college readers.

Huy (2005) conducted a study to investigate the effects of extensive reading on the subjects' perceptions about their reading ability and metacognitive strategies. Six students majoring in computer science at the Saigon Institute of Information Technology in Saigon, Vietnam, were asked to participate in the study. Pre and post-questionnaires were used to explore the students' perception about their own reading ability and use of metacognitive strategies while they performed extensive reading. Semi-structured pre- and post-interviews were also used to obtain further information. All the students, furthermore, were asked to write their reflections about their reading experience and performance during the seven weeks of the study. The findings revealed that extensive reading played a vital role in facilitating the students' reading ability and increased their motivation in reading. The findings from the pre-questionnaire and pre-interview also showed that the students had some knowledge about metacognitive strategies before extensive reading, but that they did not select the proper strategies to facilitate their reading ability. In turn, the findings from the post-questionnaire and post-interview showed that extensive reading gave more chance for the students to practice and to select effective cognitive and metacognitive strategies to enhance their reading achievement. In addition, the findings showed that both types of strategies were useful for improving the participants' extensive reading.

Sonleitner (2005) conducted the research to answer the following questions: (1) What metacognitive strategies do students report using while reading biology texts? (2) What is the relationship between reading strategies use and their attitude toward reading biology? (3) Does strategy use vary among good and poor readers, gender, and majors? (4) Does explicit strategy instruction improve students' attitude toward reading biology texts?. During the study, 430 students completed the Metacognitive Awareness of Reading Strategies Inventory and an attitude survey. Ten students volunteered as case study participants. These students received instruction using multiple metacognitive strategies and participated in an interview. This research indicated that college freshmen are somewhat skilled using metacognitive reading strategies, but rely primarily on problem-solving strategies. Use of metacognitive reading strategies was positively correlated with student attitudes toward reading science texts. Significant differences were found among good and poor readers, males and females, and different majors.

Tsai (2005) explored the cognition and metacognition of English reading strategies in successful Taiwanese comprehensive high school student readers. In particular, the study examined the similarities and differences between Chinese and English cognitive and metacognitive reading strategies, the challenges of unknown English vocabulary, and English oral reading fluency. Eight 11th grade Taiwanese students participated in this study, ranging from 16 to 18 years old. A general readers' interview protocol, two teachers' interviews, an English oral reading fluency assessment, pre-reading assessments (vocabulary and prior knowledge), and the think-aloud assessments were also conducted in this study. The above interviews and assessments were all audiotaped as subjects carried out these tasks. The main findings

of the study are as follows: (1) All eight readers achieved the 4th grade level of oral reading fluency according to the standards of the Multidimensional Fluency Scale; (2) From the qualitative perspective the Chinese reading strategy methods were similar to the English reading strategy methods, such as monitoring comprehension, inferring, evaluating the text information, summarizing, recognizing the text structure, looking for key word, activating prior knowledge, looking for main idea, re-reading, and underling a certain part of the text; and (3) The strategy of using context clues was ranked as first in terms of the most frequently used when readers dealt with unknown English vocabulary.

Allen (2006) explored the theoretical and practical concept of developing metacognitive skills in struggling readers to become more strategic in their use of strategies and ultimately to be more independent and self-directed learners. The study was conducted in a small urban elementary school; seven students in grades two to four participated in an after school tutorial reading program. Through surveys, informal discussions, and lessons designed for small and large group instruction, the researcher assessed the impact of instructional strategies to develop metacognitive skills in struggling readers. The findings revealed an increase in the use of different metacognitive strategies as a result of students being reinforced to use them but noted that this may have been a combination of their instruction from Reading Plus, extra reading class, and their classroom teachers.

Lee (2006) examined the differences in the self-reported use of metacognitive reading strategies by Taiwanese non-English major EFL college freshmen when reading English expository texts; investigated the impact of rhetorical text structure (inductive versus deductive) on the participants' use of metacognitive reading

strategies; and studied the effects of rhetorical text structure on the participants'

reading comprehension performance. One hundred and sixty-three EFL college

freshmen divided into four groups by level of English reading proficiency read two

expository texts over a one week period. One text was structured inductively and the

other text deductively. After reading each passage, the participants completed the

Survey Of Reading Strategies (SORS) and a 10-item comprehension test. English

reading proficiency significantly was associated with the use of metacognitive

strategies (e.g. global, problem solving, and support reading strategies), with the more

proficient readers of English making greater use of the metacognitive strategies than

the less proficient readers.

Tapinta (2006) conducted the case studies to explore and describe Thai

university students' awareness and application of cognitive and metacognitive

strategies when reading and writing in English as a Foreign Language (EFL).

Four participants, including two high and two low English language proficiency

learners, were selected from 14 students enrolled in a five-week course called English

for Social Sciences offered at Kasetsart University in Bangkok, Thailand in 2005.

The major sources of data for the analyses included the transcripts of the participants'

pair discussions, think-aloud protocols, interviews, and daily journal entries.

In addition, field work observations, reading and writing strategy checklists,

participants' written work, and the comparison of the pretest and posttest results were

also instrumental to the analyses. The interpretive approach of content analysis was

employed for these four case studies. Findings were initially derived from the single-

case analyses, and then from cross-case analyses. Major findings revealed that

strategic knowledge enhanced these EFL learners' proficiency in English reading and

writing. However, applying elaborative strategies for higher-level reading was challenging for most of the participants. Two crucial factors that impeded their development were the learners' uncertain procedural and conditional knowledge of strategy uses and their limited English language proficiency due to limited exposure to the second language (L2). These EFL learners also developed metacognitive awareness and strategy applications, but not to the level that always enhanced effective regulation and control of their reading and writing behaviors.

Boudreaux (2007) examined the linear relationship and predictability between selected demographic and metacognitive variables and eighth-grade students' academic performance on the reading section of the state of Texas' TAKS (Texas Assessment of Knowledge and Skills) assessment. The study was two-fold: to examine whether the demographic variables of gender, ethnicity, and students' educational program had a linear relationship to middle school students' academic performance on the TAKS assessment, and examined whether three metacognitive reading strategies: global, support, and problem solving had linear relationships to middle school students' academic performance on the TAKS assessment. The instrument used to measure metacognitive strategies was the Metacognitive Awareness of Reading Strategies Inventory (MARSI). The survey was developed by Mokhatari and Reichard (2002) and was administered to eighth-grade classes. The 2006 TAKS Reading scores were also utilized in this study. A demographic questionnaire was developed to ascertain specific information regarding student's gender, ethnicity, and educational programs. The results of the study revealed that the MARSIS: Metacognitive Awareness of Reading Strategies Inventory and selected student demographics had a significant relationship in only Reading Objectives 1, 3,

and 4 of the TAKS Reading assessment. In contrast, the MARSI, and selected student demographics did not have a significant relationship to Reading Objective 2 on the TAKS Reading assessment.

Handyside (2007) determined the effects of metacognitive training on English language learners' reading comprehension by teaching reading strategies to thirty-three Spanish-speaking students between the ages of nine and eleven with basic and intermediate levels of English language proficiency. Students were randomly assigned to four groups: metacognitive strategy training in English only (monolingual condition) for students with basic and intermediate level language proficiency (Groups 1 and 2) and strategy training in English plus Spanish (bilingual condition) (Groups 3 and 4). Experimental groups attended 90 minute sessions twice a week for a six-week period followed by two weeks of extra practice. Pre-test and post test standardized measures of reading comprehension were obtained using the Scholastic Reading Inventory. Pretest and post test scores on the Metacomprehension Index were gathered as a qualitative measure of strategy awareness. The analysis of variance procedure showed main effects of testing occasion and strategy awareness. There were significant differences in metacognitive awareness between pre-test and post test scores. Additionally, there were no interactions between English language proficiency levels and language of instruction. Regardless of language of instruction, participating subjects increased their strategy awareness in six selected reading strategies and that the gains in reading comprehension may be the result of strategy use and extra practice rather than the language of instruction used to deliver instruction.

Jaengsaengthong (2007) explored the strategy use of graduate students majoring in English at a Thai university. The research instrument was the Online Survey Of Reading Strategies (OSORS) aiming at measuring online reading strategies in three categories: global, problem solving, and support strategies (Anderson. 2003). A total of 152 students participated in this study. Results indicated that the graduate students used a higher number of problem solving strategies than global and support strategies. Also, the high proficiency students used all of the strategies at a high level while the low proficiency students used them at a medium level; however, there were no significant differences in the use of overall reading strategies between the high and low proficiency students. As pointed out, the data of this study were limited to the survey data. While the ultimate goal was to document this complex phenomenon extensively, these self-reported data were liable to become either untrustworthy or insufficient to capture the online reading process of the students.

Monos (2007) conducted the research to provide a picture of the metacognitive awareness of reading strategies of a group of Hungarian university students majoring in English, with a view to offering suggestions for developing reading skills improvement programs. Participants were 86 students in the first or second year of their studies, who completed the Survey of Reading Strategies of Hungarian College Students, which aims to reveal the type of reading strategies respondents report using when reading academic materials in English. The results of the study revealed that on the whole there is a fairly high awareness of all the strategies included in the survey, with a preference among the respondents for problem solving strategies, followed by global and support strategies. The findings confirm the gender effect and patterns of strategy use identified by studies carried out

in a variety of contexts. Furthermore, when reading ability was measured by a different instrument, an objective reading test, about 30% of the respondents with a high metacognitive awareness and with correlating high self-rated reading ability proved to be poor readers. The paper also examines what the latter finding suggests for reading instruction.

O'Hara (2007) conducted the quasi-experimental study to explore the effect of two supplementary instructional approaches, CORI-STAR and Guided Reading, on accelerating struggling readers' growth in reading comprehension, reading motivation, and metacognitive awareness, as well as their transference of strategies to their classroom reading groups, their application of reading strategies, and their metacognitive knowledge of reading strategies. Struggling third- and fourth-grade students were invited to participate in an 8-week supplementary instructional reading group. Fifty students with parental consent were then randomly assigned by classrooms to either the CORI-STAR or Guided Reading approach. The results revealed statistically significant time (pretest, posttest) by treatment interactions with large effect sizes favoring the CORI-STAR group on (a) three comprehension measures: WRMT-PC, QRI-4 questions, and QRI-4 retelling, and (b) three metacognitive awareness measures to assess students' awareness of strategies, their application of strategies, and their metacognitive awareness of the declarative, procedural, and conditional knowledge of regulating their use of reading strategies.

Aegpongpaow (2008) investigated metacognitive strategies used in Thai students' English academic reading. The participants in this study were 20 third-year Thai students enrolled in the Bachelor's Degree program at Srinakharinwirot University. The samples were divided into two groups - high English reading

proficiency and low English reading proficiency. The data collection included the following techniques: interviews, observations through think-aloud sessions, and journal entries. The results revealed that the students had awareness and control of their metacognitive strategies in their reading process. They used metacognitive reading strategies to plan, monitor, and remediate their comprehension such as scanning the text, paying attention to the main points, and focusing on the key words. The findings also showed that in their academic reading, the participants with high English reading proficiency used metacognitive strategies more often than the participants with low English reading proficiency. In addition, both high and low reading proficiency students knew various effective reading strategies, but the group with low English proficiency could not apply them to enhance their reading comprehension.

Culver (2008) investigated the practical and effective methods of increasing reading compliance, reading comprehension, and metacognitive reading strategies in the college classroom. Participants were recruited from Delta State University, a small university located in Cleveland, MS. There were 148 students who completed the study. 50% of these participants were Caucasian and 42% were African American. The average age of the participant was 20.0 years of age. Students were primarily freshman and sophomore undergraduate students taking a Psychology course. The instruments used during the course of this study were: The Nelson Denny Reading Test, The College Textbook Questionnaire, The Survey of Reading Compliance (pretest and posttest), two teacher-made comprehension tests, and the Metacognitive Reading Strategies Questionnaire (pretest and posttest). The Metacognitive Reading Strategies Questionnaire suggested that undergraduates

are utilizing some basic metacognitive reading strategies, but do not use more sophisticated strategies. The threat of the Monte Carlo quiz had no statistically significant effect on reading compliance, comprehension, or metacognitive reading strategies. The Reader's Guide did not have a statistically significant effect on reading compliance or comprehension. However, students exposed to the Reader's Guide experienced a statistically significant increase in the use of metacognitive strategies.

Li (2008) investigated how Chinese tertiary EFL readers utilize metacognitive knowledge in their academic reading process, to discover the possible differences between less successful readers and successful readers in utilizing metacognitive knowledge in their reading and to map out the relationships among metacognitive knowledge, vocabulary size and EFL reading comprehension ability. Five less successful and five successful Chinese tertiary EFL readers participated in the think-aloud reading task and the interviews in Phase One study. Twenty-nine types of metacognitive knowledge were identified and categorized into nine subcategories under two major categories of person knowledge and strategy knowledge following Flavell's metacognitive framework (1979). Less successful readers used more frequently metacognitive knowledge than their successful counterparts. Phase Two study consisted of 548 non-English major sophomore students in a large-scale survey on the relationships among metacognitive knowledge, vocabulary size and EFL reading comprehension ability. The instruments included Questionnaire on the Metacognitive Knowledge of EFL reading comprehension, Vocabulary Levels Test and EFL Reading Comprehension Test. The findings revealed that Chinese tertiary EFL readers have a good command of 2,000-word level and approach 3,000-word

level. Vocabulary size did not only exert direct influences on EFL reading

comprehension ability, but also played a significant moderating role in regulating the

effect of metacognitive knowledge on EFL reading comprehension ability. When the

vocabulary size reaches above the threshold of 3,000 words, metacognitive

knowledge plays an increasing role in EFL reading comprehension ability.

Mokhtari and Reichard (2008) studied the influence of the two reading

purposes, namely reading for study and reading for entertainment, on students'

metacognitive awareness and use of reading strategies. They asked 65 high school

students to complete a self-report questionnaire twice. First, the students were asked

to identify the strategies they use while reading for study, and second the students

were asked to identify the strategies they use while reading for entertainment.

The results showed that reading purpose influenced the students' selection of reading

strategies and the students used the reading strategies more frequently when reading

for study than when reading for entertainment.

Noronha (2008) explored the relative value of behavioral and cognitive

psychology as the basis of instruction for underprepared college students enrolled in

developmental reading courses, and investigated the effects of a metacognitive

strategy-based instructional approach (MSIA) modeling a metacognitive self-

questioning technique (MSQT) versus a traditional skills-based instructional approach

(SIA) on the Nelson-Denny reading comprehension scores of college developmental

readers and whether there were significant differences in achievement based on

instructional method used and on the gender of students. The samples consisted of

100 college developmental reading students who were enrolled in six intact sections

of a reading course (REA0002). Participants completed a pretest of the

comprehension subtest of the Nelson-Denny Reading Test. A two (Between) x one (Within) Repeated Measures Analysis of Variance (ANOVA) was utilized to test each of the hypotheses of this study. Results showed that there were no significant differences in reading comprehension levels between the groups receiving the different instructional treatments and no differences in reading comprehension between the men and women participants.

Dinner (2009) determined if a metacognitive-focused intervention improved striving readers' comprehension of expository text, metacognition, motivation and self-efficacy. Six fifth-grade striving readers were divided into two groups; one student per group had an identified reading disability. The first group received the intervention for nine weeks, the second for six weeks. Students graphed their progress weekly and the teacher-researcher met with students individually to discuss results and strategies to improve. Repeated-measures ANOVA analyses found significant differences in student comprehension achievement from baseline to intervention but not from intervention to post-intervention, nor due to length of intervention, or between students with and without a disability. Analysis of quantitative and qualitative data, employed to study effects of the intervention on metacognition, motivation and self-efficacy, revealed mixed findings. Results are discussed by individual and across individuals.

Fan (2009) explored how metacognitive strategies can be implemented most effectively in Taiwanese universities, to attain improved EFL students' reading comprehension. One hundred forty three first-year students at the Lung Hwa University were recruited as subjects in the study. A 2-by-2 ANCOVA measure was employed to assess whether metacognitive strategy training can bring significant

outcomes on the EFL reading comprehension. The results showed that the experimental group outperformed the control group. The metacognitive strategies that were engaged to facilitate Taiwanese university learners' EFL reading comprehension revealed a strong achievement level effect on the reading comprehension outcomes.

Harris (2009) investigated the use of metacognitive strategies by students who are reading Chumash (the Five Books of Moses) for comprehension. The qualitative inquiry involved sixth and seventh grade students (N=10) recruited from a Modern Orthodox Hebrew day school in Northern New Jersey. All participants had attended a Hebrew day school at least since first grade. Five subjects were selected as "successful" readers and five as "less-successful." Students were evaluated for selection based on a normed English comprehension exam, as well as the recommendations of their Bible and English teachers. The procedure included individual interviews and recorded think-alouds while students were reading. Results indicate that these particular Chumash students did use many of the same metacognitive strategies as readers of other first and second languages. However, even the "successful" readers favored local (bottom-up) over global (top-down) strategies. Furthermore, "successful" readers did not necessarily exhibit more strategies than "less-successful" students.

Iwai (2009) explored the role of metacognitive awareness in reading among adult ESL students of various academic levels enrolled in a university in the southeastern part of the United States of America while engaged in academic reading. In addition, this study examined metacognitive reading strategies employed by those students. In the quantitative portion of the study, 98 students responded to the Survey Of Reading Strategies (SORS) instrument and a background information

questionnaire. The SORS measured metacognitive awareness and use of reading strategies. In the qualitative portion of the study, six students (two English Language Institute, two undergraduate, and two graduates) participated in semi-structured interviews, including examinations of their academic reading materials.

The quantitative results showed that the ELI students reported the most frequent use of metacognitive reading strategies, compared to the undergraduate and graduate students as measured by the SORS. Analysis of the data showed no positive correlations between the students' academic performance measured by grade point averages (GPAs) and their scores of overall and sub-scales on the SORS. The analysis did not show any relationships between the students' self-rated English reading proficiency and their scores on the overall and sub-scales on the SORS.

Morley (2009) investigated readers' cognitive processes during reading; the interaction of reader, text, and activity; as well as the effect of metacognitive awareness on that interaction; examined the relationship between students' reported awareness about reading and their actual reading comprehension skills; and determined relationships among the level of metacognitive awareness, reader stance, use of self-selected strategies, and level of understanding of academic text. A sampling of 59 subjects was drawn from sixth-grade middle school students with a range of reading abilities. The results revealed distinct tools: (1) developmental characteristics and identified stages of development for metacognitive awareness and for metacognitive usage; (2) a preliminary test of reliability of the Metacognitive Strategy Use (MSU) rubric, which evaluates students' metacognition and comprehension of academic text; (3) and a rich description of three metacognitive identities: identifiers, expanders, and connectors.

Pinto (2009) investigated whether modeling self-assessment and
metacognitive reading strategies in the classroom, then providing an intervention for
students to practice the metacognitive reading strategies in their independent reading,
fostered strategy awareness and improvement in motivation and comprehension for
7th grade readers. Two different sample passages of the New Jersey Assessment of
Skills and Knowledge Grade 7 (ASK-7) were administered to determine students'
reading levels before and after the intervention. The quantitative and qualitative
methods were utilized to increase the validity of the study: a motivational survey,
a metacognitive reading strategy survey, a homework guide, and three student
interviews. The samples consisted of 71 students in 7th grade and 1 reading teacher in
a middle-class community in southern New Jersey. The study was conducted over an
8 week-period and consisted of two instructional sessions per week. The findings
revealed that students increased in comprehension, motivation, and metacognitive
reading strategy use. The students were able to generalize strategies to new types of
text.

Smith (2009) attempted to determine whether a focus on Reading
Apprenticeship strategies and routines in a college level composition class would
affect students' metacognitive awareness and comprehension of academic text.
Participants included 141 students from one junior college in a southeastern state.
The 141 participants were enrolled by choice in six sections of composition taught by
three instructors who had all received extensive training in implementing the Reading
Apprenticeship framework in their classes. The participants were administered the
Revised-Curriculum Embedded Reading Assessment (CERA) twice (pre- and post-
intervention) during the fall semester of the 2008-2009 school year. Participants read

and annotated an instructor selected piece of text which was characteristic of the kind of text assigned in a junior college level composition class. The students then responded to six open-ended prompts about the reading and how they made sense of the reading. The instructors used the CERA rubric to score metacognitive awareness and comprehension of academic text at 1 (Beginning), 2 (Noticing), 3 (Developing) or 4 (Internalizing) levels based on the student's responses. The results of this study indicated that implementing Reading Apprenticeship strategies in a first year composition course does significantly impact CERA metacognitive awareness and comprehension scores. No students received a score of four for the pre-metacognitive awareness assignment or pre-comprehension assignments, but eleven students received a score of four on the post-metacognitive awareness assignment and thirteen students received a score of four on the post-comprehension assignment. The results indicated that of the 141 subjects who participated in this study, 71 experienced improved metacognitive awareness scores and 102 experienced improved comprehension scores after the Reading Apprenticeship strategies were employed during the semester. Fifty-four students scored the same on the pre and post metacognitive awareness assignments, and thirty three students scored the same on the pre and post comprehension assignments. Sixteen students experienced a decrease in their metacognitive awareness scores while six students experienced a decrease in their comprehension scores.

Tong (2009) investigated the metacognitive reading awareness and usage of eighth-grade middle school students from a rural school district in northwestern Pennsylvania. Students voluntarily participated by completing a metacognitive reading survey. The survey was evaluated to determine where middle school

students, specifically eighth graders, are in their development of metacognitive awareness and usage. Further, the study focused on how students' awareness correlated with their academic achievement. Of the participants, 10 percent were interviewed to gain further insight into students' use and awareness of metacognitive strategies. Students' survey responses along with interview data were correlated with PSSA reading achievement. Data were analyzed using SPSS. No correlations between metacognitive awareness and academic achievement scores were apparent using these data. The data derived from the survey coupled with PSSA scores showed a negative correlation. These results indicate students with proficient scores on the PSSA often did not use metacognitive strategies before, during and after reading.

Pookcharoen (2010) explored the metacognitive online reading strategies among students in Thailand, a non-native English speaking country, and explored similarities and differences which exist between proficient and less proficient students and discusses several types of difficulties and challenges these students reported and encountered. The metacognitive online reading strategies for academic purposes were investigated by mixed methods. Several sources of data include the Online Survey Of Reading Strategies (OSORS), TOEFL reading tests, Internet use questionnaires, pre- and post-reading interviews, think-aloud sessions, and self-reports of online reading strategies. The samples were 111 Thai EFL students from different majors participated in this study. The eight students were chosen for in-depth interviews by using OSORS. TOEFL reading tests were administered, two groups of four students were categorized as the proficient reader group and the less proficient reader group. To elicit data as to how they utilized strategies, each student was asked to undertake think-aloud online reading tasks and to write a two-page description to report the

strategies used during independent online reading.

In summary, all these explorations pinpoint the fact that metacognitive strategies play an important role during the reading process of ESL/EFL students. These strategies help learners plan, organize, control or monitor, and evaluate their reading. Therefore, it would be beneficial to investigate, as the present study does, the importance of metacognitive strategies in Thai students' reading ability.

2.16 Summary of the Chapter

This literature review showed the importance of reading for success in school, and throughout one's life. Because a reading achievement gap currently exists with students attending urban schools, it is critical to provide them with highly effective strategies that will promote comprehension. The summarization studies discussed in this chapter showed summarization to be a highly effective strategy with positive results on reading comprehension and summary writing. By explicitly teaching this particular comprehension strategy using business reading text and knowledge of text structure, students can become more successful readers and learners. In the next Chapter describes the methodological approach and the instruments to examine the use Metacognative strategies to improve business reading comprehension of Buriram Rajabhat University students.