

CHAPTER 2

LITERATURE REVIEW

The purpose of this study was to investigate the use Metacognitive Strategies to improve Business Reading Comprehension of Buriram Rajabhat University students who studies English as a foreign Language. The review of the literature begins with definitions of reading comprehension as defined by experts in the area of reading. The next section overviews research related the importance of reading, reading purposes, reading theories, reading process, and reading models. Finally, a review of previous research works on reading strategies that have been conducted either in Thailand or foreign countries with the focal points of the studies, participants, methods of data collection and analyses, and results are presented respectively.

2.1 Definitions of Reading

Reading is a skill that a reader uses to search for world knowledge, understanding and entertainment (Chandavimol. 1998). Moreover, reading is a matter of an interaction that involves the reader, the text, and the actual interaction between the reader and text (Aebersold & Field. 1997; Rumelhart.1977; Piyanukool. 2001; Intaraprasert. 2004).

Mikulecky and Jeffries (1996) state that reading is perhaps one of the most realistic communicative skills that can take place in an EFL context. Reading is important for EFL students because it helps them to learn to think in English, to feel more comfortable with written English and to build a better vocabulary. As well as

being a highly important skill for students who plan to study in an English-speaking country, it may be the only way for EFL students who live in a non-English speaking country to use English.

The term of reading has been defined in a number of different ways by a variety of experts in the field. Gates (1986) views reading as the complex organization of patterns of higher mental process involving all types of thinking: evaluating, judging, imagining, reasoning and problem-solving. Goodman (1967) argues that reading is a psycholinguistic game, in which the reader reconstructs a message encoded by the writer as a graphic display. Huey (1987) defines reading as the complicated working of the human mind. Barnette (1989) argues that reading involves interdisciplinary insights from different fields of study such as psychology, sociology, education, and theoretical and applied linguistics. Richards, Platt and Platt (1999) view reading as a process of perceiving a written text in order to comprehend the contents of the text.

While reading, readers use their past experiences, called background knowledge. In turn, from doing this and from the text they read, they construct new experiences and acquire new knowledge. Readers have different schema and ways to apply their experiences to what they read, and these differences in experiences make some readers comprehend a text quicker and better than others. The text itself is another factor in the reading process. There are various types of texts, and each one has a different style of writing, organization, pattern, syntax and grammar, vocabulary, cohesion, and purpose. It is the readers' responsibility to know the differences between different texts in order to understand what the writer tries to convey to them.

The text and the reader are two factors that are essential to the reading process. The reader reads the text to comprehend it. Therefore, the interaction between the text and the reader is, by itself, another vital factor in this process. Different readers may get different meanings from the same text. These differences are due to the differences in the readers' background knowledge, reading ability, aptitude, personal interest, classroom environment, and so on.

In short, it could be said that ESL/EFL reading is an interactive process that involves constructing the meaning of a text. Readers interact with a text to derive the meaning from it, relying on different reading models. Therefore, knowing these models will help understand how readers work out the meaning from a text.

2.2 The Importance of Reading

Of all the language skills, it is accepted that reading is the most important skill for academic achievement, comparing to other language skills, i.e. listening comprehension, speaking and then writing (Adamson. 1993). According to Anderson (1999), reading is an essential skill for both ESL and EFL students; and for many other field of study students, reading is also the important skill to master in order to ensure success in language learning. With strengthened reading skills, ESL/EFL learners will make greater progress and attain greater development in other academic areas (Anderson. 2003). Based on Sugirin (1999), reading is also one of the most important language skills university students should be equipped with. Consequently, the main objectives of this section are to study the importance of reading. At the higher educational level, reading has become the university students' own best teacher (Gillet & Temple. 2000). In other words, in an independent learning environment, the

ability in reading enables the students to be autonomous learners who can learn and understand information in many areas of study without much help from teachers.

According to Badrawi (1992:16), “reading is a helpful language skill needed for obtaining information, fostering and reacting to ideals, developing interests and, finally, deriving pleasure by reading through understanding or comprehension.”

Moreover, one reason for reading is to help students understand other people’s ideas.

Carrell (1998) suggests that reading is an important skill not only for new information is learned, but also new language skills are acquired. In first language reading, even relatively advanced learners constantly acquire new vocabulary knowledge through reading. Similarly, in second language reading, learners are exposed to valuable second language input which they can use to advance their second language acquisition. Furthermore, reading is the primary source of new information about all sorts of topics in both first and second languages. Reading may give the readers an expansion of vocabulary, familiarity with varied sentence structures, a broad knowledge of the forms of written language, and acquaintance with most of the topics that are likely to come across in print and this enables good readers to gain a wealth of information about the world and wealth of vocabulary. In addition to this, Gillet and Temple (2000) propose the importance of reading as follows:

1. Reading is functional; that is, it is useful and necessary every day to work at most jobs, raise children, keep ourselves safe, and exercise our citizenship.

2. Reading is integral to development; that is, it is necessary to grow intellectually, to acquire new information and skills, to experience vicariously things and events that could not be experienced in reality, and to develop a sense of personal competence in a literate world.

3. Reading is social; that is, it is a fundamental part of the culture of schooling, a basic expectation of the outcome of schooling, and a part of daily family life. It is also social in that literacy is, in effect, handed down in families from adults to children and in that literacy provides common bonds and experiences among people who otherwise might have little else in common.

4. Reading is enjoyable; that is, a source of pleasure, fun, recreation, relaxation, escape, and even adult-child bonding. From the importance of reading mentioned earlier, we can see that reading plays a dominant role in learning, especially in the higher educational level because textbooks used in the higher level of study are often printed in English.

To summarize, we can see that learners with good reading skill will contribute enormously to success in their study both inside and outside classroom as well as their acquisition of the target language, their social life, and their future career.

2.3 Reading Purposes

As mentioned in the previous section, reading plays an important role in our learning, especially for the higher educational level students. It is useful and helpful if students realise the purposes of their reading. This section specifically deals with the purposes of reading. Reading purposes refer to readers' aims and objectives in reading texts. If we carefully think and consider the purposes of reading, we can find different purposes from different readers. Therefore, reading purposes are one of the important factors which can lead us to be successful readers. According to Ruiqi (2007), reader's reading purpose is an integral part of successful reading. Herri-Augstein, Smith and Thomas (1982; cited in Ruiqi. 2007) propose that reading purpose is

important for two reasons: 1) the way one reads a text varies with purposes; and 2) the success for reading can only be checked against purposes. Knutson (1998; cited in Ruiqi, 2007) also points out that the nature of reading varies according to the reader's purpose and situation, and that reader's reading purpose inevitably determines his/her approach to the text, the amount of attention paid, the time spent, as well as what features of parts of the text are focused on.

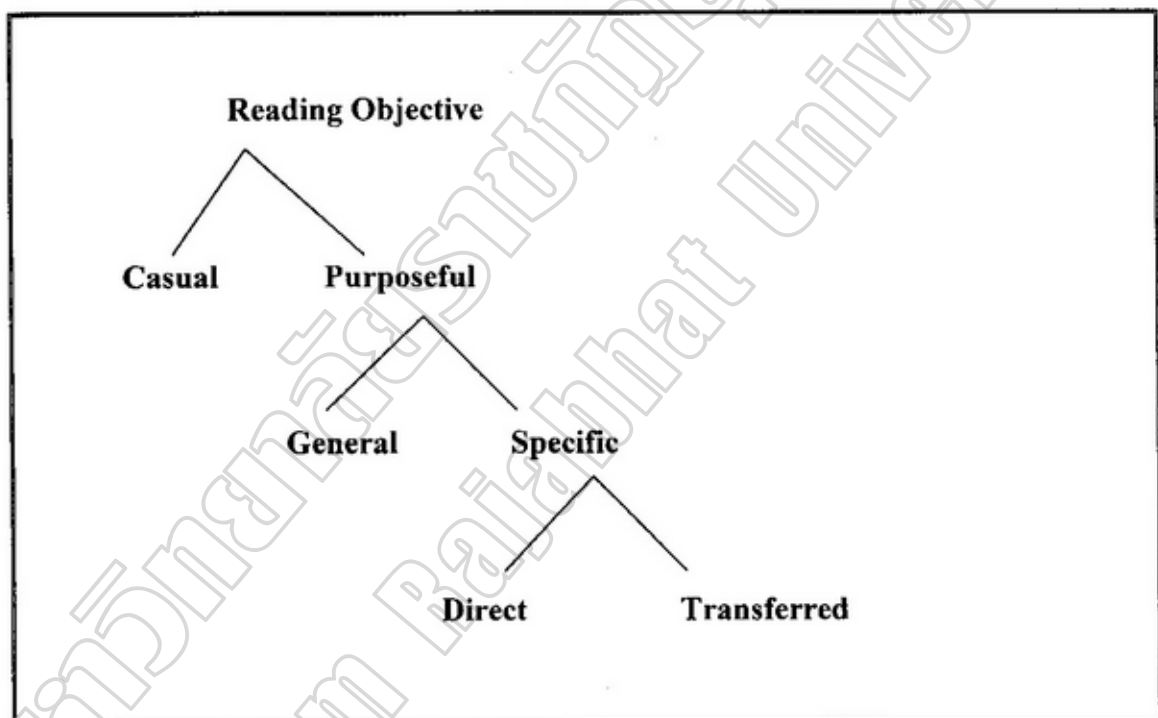


Figure 2.1 Reading Objectives

(Source: Lucas, (1990:26) ✓ 7/2/2021

The scheme shown in Figure 2.1 is an attempt to show the variety of reading objectives. With regard to the reading objectives shown above, into two groups as casual and purposeful objectives. The need distracted, idle curiosity, and a general interest in a topic can be objectives. In terms of the purposeful objectives, two sub-obje

into general and specific objectives. The interest in an academic and professional topic is in the group of general objective. Additionally, the specific objectives can also be classified into two sub-objectives: direct and transferred objectives. The direct objective refers to a definite need for some particular information as a need to check some knowledge or understanding of the facts. Besides, the transferred objective refers to the task of finding information for somebody else, or the command of a teacher to read a particular text. Obviously, reading objectives will differ in intensity from one potential reader to another, and often a potential reader will have a combination of objectives (Lucas 1990).

Grellet (1981) notes that there are two main purposes for reading: 1) Reading for pleasure and; 2) Reading for information (in order to find out about something or in order to do something with the information the reader gets). According to Ruiqi (2007), there are two major reading purposes: reading for getting information and reading for pure fun or enjoyment. Additionally, Grabe and Stoller (2002) have classified the reading purposes under seven main headings as follows: 1) Reading to search for simple information; 2) Reading to skim quickly (Both reading to search and reading to skim are common reading abilities. Reading to search is used so often in reading tasks that it is probably best seen as a type of reading ability.); 3) Reading to learn from the text typically occurs in academic and professional contexts in which a person needs to learn a considerable amount of information from a text; 4) Reading to integrate information inevitably requires critical evaluation of the information being read so that the reader can decide what information to integrate and how to integrate it for the reader's goal; 5) Reading to write (or search for information needed for writing); 6) Reading to critique texts (Both reading to write and reading to critique

texts require abilities to compose, select, and critique information from a text);

7) Reading for general comprehension is the most basic purpose for reading, underlying and supporting most other purposes for reading. To summarise, many scholars such as Grabe, Stoller, Grellet, Lucas, and Ruiqi have recognized the importance of reading and demonstrated the reading purposes. Based on these scholars, reading purposes can be classified into two main purposes: reading for pleasure and reading for getting information. However, the reading purposes can also be categorised into many categories as suggested by Grabe and Stoller. As mentioned earlier, there are a number of different reading purposes; therefore, recognizing the reading purposes is one factor which can help the students succeed in their reading tasks. This may be because the reading purposes may be a rough guide to show the students the importance of their reading tasks. For the present study, only reading business texts has been considered. Therefore, the main purpose of reading for this study is to read for getting the information.

2.4. Reading Theories

Having knowledge about theories on reading can help the readers understand the processes of reading better. While doing some reading, good readers often use their cognitive and/or metacognitive process to decode the linguistics for their comprehension in order to better understand the texts (Mokhtari & Reichard. 2004; Henia, 2003). Therefore, the cognitive theory and metacognitive theory will be reviewed in this study. Moreover, the existing knowledge is one factor that can help the reader to understand the text more easily. Hence, the schema is also an important

factor in reading. In the following section, it discusses three reading theories which are the cognitive theory, the metacognitive theory, and the schemata theory.

2. 4.1 Cognitive Theory

The term “cognition” refers to variations among individuals in the preferred way of perceiving, organizing, or recalling information and experience (Ghonsooly & Eghtesadee. 2006). The cognitive theory emphasizes the active mental processes involved in language learning, and not simply the forming of habits as the behaviorist views (Schmidt & Richards. 2002). According to Williams and Burden (1997), cognitive strategies are seen as mental a process directly concerned with the processing of information in order to learn, that is for obtaining, storage, retrieval or use of information. Specifically in a reading aspect, a cognitive theory of reading assumes that an active reader integrates the existing knowledge and new information with some strategies to construct a meaning from the texts (Alvermann & Pheps. 2002). Furthermore, the cognitive theory has been seen as guiding procedures that students can use to help them complete their reading tasks (Rosenshine. 1997).

2. 4.2 Metacognitive Theory

‘Metacognition’ refers to higher order thinking which involves active control over the cognitive processes engaged in learning. Livingston (1997), and Alverman and Preps (2002) define metacognition as the awareness of students about the resources and strategies that they can use to complete tasks. Moreover, it enables learners to become successful learners, understand how to be strategic readers and when to evaluate their comprehension.

Carrell (1998) proposes that metacognition is a strategy which can help students to be consciously aware of what they have learned, recognize situations in

which it would be useful, involve thinking about the learning process, plan for learning, monitor comprehension or production while it is taking place, and evaluate of learning after the language activity is completed. Flavell (1979) further divides metacognitive knowledge into three categories: knowledge of person variables, task variables and strategy variables. Regarding metacognitive experience, it can be defined as a “stream of consciousness” process in which other information, memories, or earlier experiences may be recalled as resources in the process of solving a current moment cognitive problem. Activities such as planning how to approach a given learning task, monitoring comprehension, and evaluating progress toward the completion of a task are metacognitive in nature (Livingston, 1997). In addition to using background knowledge to construct the meaning of what they have read, readers must monitor their comprehension and know when the process is breaking down. This monitoring of comprehension is also metacognition (Heilman, Blair, and Rupley, 1994). For example, before reading a text book, the students might take a mental inventory of the information from their background knowledge they have had in that topic. They also assess their interest in pursuing the topic further, their ability in reading, and their understanding of the purpose of the reading task. Only developing this awareness is not enough. The students also need to monitor their reading involving evaluating the trustworthiness of assumptions or inferences readers make while reading. Students can move backward and forward in text searches or they can engage some appropriate strategies to complete reading tasks (Carrell.1998).

2. 4.3 Schema Theory

Schema theory can describe how knowledge is represented and how that representation facilitates the use of the knowledge (Heilman et.al. 1994). Schemata are the reader's pre-existing concepts about the world and about the text to be read (Barnett. 1988). According to Alvermann and Pheps (2002), schemata are fluid; they overlap and intertwine, and they are constantly modified to assimilate or accommodate new information. Schemata are used by cognitive psychologists to describe how the readers organize the raw data of everyday experience into meaningful patterns. They enable the readers to draw generalizations, form opinions, and understand new experiences. They act as a kind of mental filing system from which the individual can retrieve existing knowledge and into which new information can be filed. While reading, the readers' schema for a topic helps them to anticipate, to infer, to decide what is or is not important, to build relationships between ideas, or to decide what information merits close attention. After reading, they use schema as a topic to help them recall what they have read and put it into their own words in order to make them understand what they have read better (Alvermann & Pheps. 2002). In other words, schemata play a large role in the reading process. They determine which of several interpretations of the text is the most probable.

In conclusion, three theories mentioned in this section can explain the reading process. While reading, the students need at least one of these theories (cognitive, metacognitive and schemata) to explain how to decode the meaning from the written or printed words for their comprehension. Readers use their cognition, metacognition, and/or schema to recall their existing experience or some information that they have

learned, and then integrate the former knowledge with new information to understand the meaning of the texts.

2.5 Reading process

Reading is not merely a receptive process of picking up information from the page in a word-by-word manner. Rather, it is a selective process and characterized as an active process of comprehending (Gascoigne. 2005). As mentioned in Section many scholars (e.g. Anderson. 2003; Grellet.1981; Badrawi. 1992; Pikulski. 1997; Grabe & Stoller. 2002) view reading as an active process in constructing the meaning of what has been read that involves the reader and the reading material. According to Heilman et.al (1994), the reading process is a dynamic one, requiring active, meaningful communication between the author and the reader. It might be useful to understand the process in reading, and this is what drives many researchers to attempt to understand and explain its process. Hence, this section specifically deals with the reading process.

As can be seen in 2.4.3 that schemata theory can describe how readers organize the data of background knowledge into meaningful patterns, Ruddell (2001) points out that there are two types of prior knowledge which are employed to explain the process in reading: world knowledge and text knowledge. The world knowledge is the total amount of information a person has accumulated through day-to-day living experience while the text knowledge is information accumulated from a reader's experiences with the text.

Leipzig (2001) notes that reading is a multifaceted process involving word recognition, comprehension, fluency, and motivation. While reading, the reader

should be able to: 1) identify the words in print which is called word recognition; 2) construct an understanding from them which is called comprehension; and 3) coordinate identifying words and making meaning so that reading is automatic and accurate which is called fluency. This is consistent with Roe, Smith, and Burns (2005) who propose that reading is an extremely complex process which include nine aspects:

1. Sensory aspect which is to perceive the symbols set while reading;
2. Sequential aspect which is to follow the linear, logical, and grammatical patterns of written words;
3. Perceptual aspect which is to interpret what the readers see;
4. Experiential aspect which is to relate words to direct experiences to give the words meaning;
5. Thinking aspect which is to make inferences from and evaluate the material;
6. Learning aspect which is to remember what they learned in the past and incorporate new ideas and facts;
7. Associational aspect which is to recognize the connections between symbols and sounds, between words and meaning;
8. Affective aspect which is to deal with personal interests and attitudes that affect t task of reading; and
9. Constructive aspect which is to put everything together to make sense of the material. Not only one of the nine aspects of reading process works individually, but the whole aspects also work together. This process can be likened to a series of books, which each aspect represented by an important volume. A student would have to understand the information in every volume to have a complete grasp of the subject.

Therefore, the student would have to integrate information from all of the volumes in order to perform effectively in the area of study. In other words, the series of the whole aspects of the reading process would be more important than any individual aspect. Additionally, reading has been seen as a psycholinguistic process which starts with a linguistic surface representation encoded by a writer and ends with meaning which the reader constructs. There is thus an essential interaction between language and thought in reading. The writer encodes thought as language and the reader decodes language to thought. Goodman reveals that the brain is the organ of information processing. The brain seeks to maximize information it acquires and minimize effort and energy used to acquire it. There are five main reading processes proposed by Goodman (1995) which the students employ in reading as follows:

1. Recognition-information- The brain must recognize a graphic display in the visual field as written language and initiate reading. It is possible for reading to be interrupted by other activities, examining pictures, for example, and then to be reinitiated.

2. Pre-reading- The brain is always anticipating and predicting as it seeks order and significance in sensory inputs.

3. Confirmation- If the brain predicts, it must also seek to verify its predictions. So it monitors to confirm with subsequent input what it expected.

4. Correction- The brain reprocesses when it finds inconsistencies or its predictions are disconfirmed.

5. Termination. The brain terminates the reading when the reading task is completed, but the termination may occur for other reasons. For example, the task is non-productive, little meaning is being constructed, the meaning is already known,

the story is uninteresting, or the reader finds it inappropriate for the particular purpose.

In summary, since reading is a very complex process, the information about reading process may help the students understand how their brains deal with reading tasks which will be particularly useful for them. From the information mentioned above, it can be seen that many EFL and ESL language scholars (e.g. Goodman, Leipzig, and Ruddell.1967) are interested in reading process. Furthermore, it would be useful to comprehend the models in reading in order to have a better understanding about reading process. Therefore, the following section deals with the reading models.

2.6 Reading Process Models

Reading is a cognitive process that consists of a reader, a text, and the interaction between the reader and the text. Three persuasive models of the processes at work in reading for meaning are the bottom-up model, the top-down model, and the interactive model.

2.6.1 The Bottom-up Model

This reading model focuses on the smaller units of a text such as its letters, words, phrases and sentences. Then, a syntactic and semantic processing occurs during which reading reaches the final meaning. In this model, the reader reads all of the words in a phrase, or a sentence before being able to understand.

According to Carrell (1989), the bottom-up reading process begins with decoding the smallest linguistic units, especially phonemes, graphemes, and words, and ultimately constructs meaning from the smallest to the largest units. While doing

this, the readers apply their background knowledge to the information they find in the texts. This bottom-up method is also called data-driven and text-based reading.

However, the disadvantage of this model is that the readers will only be successful in reading if they accurately decode the linguistic units and recognize the relationship between words. However, it is impossible for the readers to store in their memory the meaning of every word in a passage. Moreover, it is difficult to relate one word to the other words.

From the above information, it could be said that there are some arguments against the bottom-up model. In the reading process, the readers understand that what they have read is the result of their own constructions, not the result of the transmission of graphic symbols to their understanding, and that without their background knowledge, they cannot comprehend the texts.

2.6.2 The Top-down Model

The top-down model was first introduced by Goodman (1967). He proposes the idea of reading as a “psycholinguistic guessing game” in which the reader uses his background (prior) knowledge or textual schemata to connect with a text and to relate these to new or unexpected information found in the text in order to understand it.

This model focuses on linguistic guesswork rather than graphic textual information. Moreover, the readers do not need to read every word of a text, but rather, they concentrate on predicting the next group of words. They concern themselves with guessing the meaning of the words or phrases.

Nuttall (1996) states that readers might start predicting from the title of the reading text, something that allows them to limit the scope of their reading.

Additionally, while reading, they may hypothesize the message the writer wants to

convey and modify their hypotheses according to what they read in the text.

Comprehension begins with higher levels of processing (making hypotheses), and proceeds to the use of the lower levels.

2.6.3 The Interactive Model

This model is built on the interaction of the bottom-up and top-down models. Rumelhart (1977), Nunan (1990), and Grabe (1991) argue that efficient and effective reading requires both top-down and bottom-up decoding. L2 readers, for example, may use top-down reading to compensate for deficiencies in bottom-up reading. To achieve meaning, they use their schemata to compensate for the lack of bottom-up knowledge (Grabe, 1991).

Stanovich (1980) argues that the interactive model is a process based on information from several sources such as orthographic, lexical, syntactic, semantic knowledge, and schemata. While reading, decoding processes can support one another in a compensatory way. If, when reading word by word, readers with good bottom-up skills do not comprehend the texts, they need to use their prior knowledge (schemata) to assist them. Alternatively, readers who rely on the top-down model use textual clues and guess wildly at the meaning, but they need to compensate for deficits such as weaknesses in word recognition and lack of effective bottom-up processing.

To sum up, the arrival and popularity of interactive models show that interactive models can maximize the strengths and minimize the weaknesses of both bottom-up and top-down models.

2.7 Reading Strategies

Many researchers have hypothesized that the use of strategies is fundamental to successful reading (e.g. Kim. 1989; Kletzien. 1991; Swicegood. 1994; Jiménez. 1996; Song. 1998; Dreyer & Nel. 2003; Tercanlioglu. 2004). According to Song (1998), reading strategies are important because they help learners to improve their reading comprehension, and to enhance efficiency in reading. In sum, reading is an important skill, especially for students studying in higher educational level; and it is also necessary for them to employ reading strategies while reading in order to comprehend the academic texts. Then, the aim of this section is mainly to study various strategies for reading. The subsequent sections deal with the definitions of reading strategies, and classifications of reading strategies.

2.7.1 Definitions of Reading Strategies

'Strategies' are the conscious actions that learners take to improve their language learning. Strategies may be observable, such as observing someone take notes during an academic lecture and then comparing the lecture notes with a chapter in a textbook in order to understand and remember information better, or they may be mental (unobservable), such as thinking about what one already knows on a topic before reading a passage in a text book (Anderson. 2003: 3).

Normally, when readers encounter comprehension problems, they use some strategies to overcome their difficulties. Different learners seem to approach reading texts in different ways, and some of which appear to lead to better comprehension (Tercanlioglu. 2004). The ways the readers use to overcome the reading difficulties are called 'reading strategies' and the term is used and defined differently by many researchers. Examples are:

1. Paris, Lipson, and Wixson (1983: 293) define reading strategies as “deliberate cognitive steps that learners can take to assist in acquiring, storing, and retrieving new information and that therefore can be accessed for a conscious use.”

2. Garner (1987; cited in Kletzien, 1991: 69) defines reading strategies as “an action (or a series of actions) that is employed in order to construct meaning.”

3. Barnett (1989: 66) defines reading strategies as “the mental operations involved when readers approach a text effectively and make sense of what they read.”

4. Brantmeier (2002: 1) has defined reading strategies as “the comprehension processes that readers use in order to make sense of what they read.” Based on the definitions of ‘reading strategies’ proposed by the scholars mentioned in this section, reading strategies can be employed as a tool to help students to be better readers. This is consistent with Pearson and Gallagher (1983) who identify better readers as having ability and making use of the strategies to summarize and make effective use of background knowledge to comprehend the texts.

The readers should also have an awareness of the strategies they employ to understand what they read. Good readers can also be the ones who try to keep the meaning of the passage in mind, read in chunks, ignore less important words, try to guess the meanings of unknown words using contextual clues, and have a good concept of themselves as readers.

A set of the sample definitions of reading strategies shown earlier has illustrated that researchers have seen reading strategies as useful techniques which readers employ when they face some difficulties in order to understand the text. Moreover, these definitions have also revealed that the goal of using reading

strategies is to facilitate the learners' reading, and to improve the learners' comprehension ability.

2.7.2 Classification of Reading Strategies

The use of reading strategies is especially crucial for high educational level students in almost every academic field of study since academic materials written in English are widespread. Tercanlioglu (2004) has proposed that reading involves a variety of factors, which may have a negative impact on learners' target language reading ability such as learners' lack of target language proficiency and vocabulary, unfamiliarity with the context and/or formal schemata of the texts to be read, and inefficient reading strategies. According to Ward (1980), although in the mother tongue the students can read naturally because they have automatic control over the structures of the language and contents, the processes in reading in a foreign language are different because of many different factors such as new unknown words, different language structure, and different prior life experiences. As a result, reading strategies are needed to overcome the reading difficulties. It is worth mentioning in brief about reading problems in order to look back and review the reasons of unsuccessful reading which may shed some light on the significance of reading strategies.

According to Mei-yun (1989), in order to improve the students' reading skill, teachers should start with identifying their students' weaknesses or problems, and then implementing appropriate strategies for strengthening their reading skills. Through the classroom observation and the diagnostic test, Mei-yun (1989) has pointed out that the students have the following five major reading problems:

1. Reading word by word, relying too heavily on their visual information;
2. Focusing too much attention on form at the expense of meaning;

3. Paying too much attention to details, with the result that they often miss the main ideas;

4. Limited vocabulary and heavy reliance on the use of the dictionary for word meaning

5. Limited background knowledge about the text to be read.

As pointed out by Kim (1989), because the ESL/EFL students have not developed full linguistic competence in the target language, they may find it difficult to participate in the reading activities. That is to say, the students may understand all the lexical items in the passage and yet may not understand the passage, because the syntactic rules of their native languages differ from those of the target language and they therefore do not have adequate grammatical control of the language. Likewise, Sally (1989: 40) has asserted that “a difficult reading problem lies in the language itself, with structural features such as complicated sentences, inter-sentence relationships, and stylistic devices making reading difficult.” To classify learning strategies, different scholars have different ways of classifying language learning strategies (Intaraprasert. 2004). These classification systems give a crucial contribution to the knowledge of reading strategies. What follow are a summary, brief discussion as well as consideration of the classification systems of reading strategies which have been identified in different contexts by different scholars. These include the classification systems by Block (1986), Anderson (1991), Pressley and Afflerbach (1995), Jiménez, García, and Pearson (1996), Aebersold and Field (1997), Ghonsooly (1997), Tang (1997), Sheorey and Mokhtari (2001), Salataci (2002), Anderson (2003), Ozek (2006), Willingham (2006), and Zhang and Wu (2009).

2.7.2.1 Reading Strategy Classification by Block (1986)

Block (1986) has classified the strategies that deal with reading into two main categories as follows:

Category 1: General Strategies

- Anticipating content;
- Recognizing text structure;
- Integrating information;
- Questioning information;
- Distinguishing main ideas;
- Interpreting the text;
- Using general knowledge and associations to background
- Commenting on behavior or process;
- Monitoring comprehension;
- Correcting behavior;
- Focusing on textual meaning as a whole; and
- Reacting to the text.

Category 2: Local Strategies

- Paraphrasing;
- Rereading;
- Questioning meaning of a clause or sentence;
- Questioning meaning of a word; and
- Solving a vocabulary problem.

2.7.2.2 Reading Strategy Classification by Anderson (1991)

Anderson (1991) has grouped reading strategies into four categories with sample strategies proposed as follows:

Category 1: Supervising Strategies

- Recognizing loss of concentration;
- Formulating a question; and
- Referring to a previous passage.

Category 2: Supporting Strategies

- Skipping unknown words;
- Visualizing; and
- Skimming.

Category 3: Paraphrasing Strategies

- Paraphrasing;
- Translating; and
- Using cognates (i.e. words that have a common origin, e.g. ward and guard).

Category 4: Establishing Coherence in Text

- Rereading;
- Using context clues; and
- Reading ahead.

Anderson (1991) introduces four main categories of strategies for reading that have been reported by language learners. These categories include Supervising Strategies, Supporting Strategies, Paraphrasing Strategies, and Establishing Coherence in Text.

2.7.2.3 Reading Strategy Classification by Pressley and Afflerbach (1995)

Pressley and Afflerbach (1995) compile a comprehensive list of strategies that individuals employ in order to understand and comprehend the reading tasks. They identify several strategies as follows:

1. Overviewing before reading;
2. Looking for important information and paying greater attention to it (which often requires jumping forward or backward to process information);
3. Relating important points to one another;
4. Activating and using prior knowledge;
5. Changing strategies when understanding is not good; and
6. Monitoring understanding and taking action to correct inaccuracies in comprehension.

2.7.2.4 Reading Strategy Classification by Jiménez, García, and Pearson (1996)

Jiménez, García, and Pearson (1996) have classified the strategies for dealing with reading into three major groups as follows:

1. Text-initiated strategies which include using text structure, summarizing, and rereading, etc.;
2. Interactive strategies which include inferencing, predicting, and questioning, etc.;
3. Reader-Initiated strategies which comprise visualizing, evaluating, and invoking prior knowledge, etc.

As being classified by Jiménez et.al (1996), strategies for reading fall into three major groups, text-initiated strategies, interactive strategies, and reader-initiated

strategies. From their study, they have found many strategies the successful readers have employed to deal with while reading, such as resolving unknown vocabulary by using context clues, invoking relevant prior knowledge, questioning, inferencing, searching for cognates, and translating; monitoring comprehension by rereading and demonstrating awareness; connecting prior knowledge with text by integrating prior knowledge of relevant topics; making inferences and drawing conclusions; and asking questions while reading.

2.7.2.5 Reading Strategy Classification by Aebersold and Field (1997)

Many language teachers and researchers have attempted to identify the mental activities that readers use in order to construct meaning from a text (Aebersold & Field, 1997). These activities are generally referred to as reading strategies. The following is the list of reading strategies suggested by Aebersold and Field (1997).

1. Recognize words quickly;
2. Use text features (subheadings, transitions, etc.);
3. Use title(s) to infer what information might follow;
4. Use world knowledge;
5. Analyze unfamiliar words;
6. Identify the grammatical functions of words;
7. Read for meaning, concentrate on constructing meaning;
8. Guess the meaning of the text;
9. Evaluate guesses and try new guesses if necessary;
10. Monitor comprehension;
11. Keep the purpose for reading the text in mind;
12. Adjust strategies concerning the purposes for reading;

13. Look for the main ideas;
14. Understand the relationship between the parts of a text;
15. Distinguish main ideas from minor ideas;
16. Tolerate ambiguity in a text (at least temporarily);
17. Paraphrase;
18. Use context to build meaning and aid comprehension; and
19. Continue reading even when unsuccessful, at least for a while.

2.7.2.6 Reading Strategy Classification by Ghonsooly (1997)

Ghonsooly (1997; cited in Ghonsooly & Eghtesadee. 2006) has classified the strategies for dealing with reading as follows:

Category 1: Metacognitive Reading Strategies

- Planning: This refers to the reader's decision on the way to read the text and what to search for in the text;
- Monitoring: This refers to the reader's identification of a problem at word level and stating the existence of a problem;
- Evaluating (Problem identification at sentence/discourse level): This strategy is observed when the reader comes across a problem in understanding a sentence or a set of sentences and states this difficulty;
- Evaluating (Reprocessing to get the gist): This occurs when the reader fails to comprehend a sentence or part of the text, then either rereads that parts or reread only the missed part;
 - Self-questioning: This refers to the reader's asking himself a question;
 - Self-correcting (Correcting a previous hypothesis): This occurs when the reader discovers the falsity of a prior guess or inference;

- Self-correcting (Correcting a wrong pronunciation): It occurs when the reader mispronounces a word and repeats the word to correct the pronunciation;
- Selective attention (Identifying important information parts of texts)
- Selective attention (Ignoring trivial or difficult sections): It occurs when the readers cannot understand part of the text but they decide to ignore it either because they regard that part unimportant in comprehending the whole text or because they find that part difficult to process.

Category 2: Cognitive Reading Strategies

- Using background knowledge: Referring to using knowledge about the world and the contents of the text that contributes to understanding the text;
- Predicting: Predicting the content of the text based on the information presented in part of the text;
- Repeating to get the meaning of word: The reader repeats a word or a phrase in order to remember or retrieve the meaning from the long term memory;
- Paraphrasing: It refers to the reader's attempt to either provide synonyms and antonyms for a word or restating the contents in his own words;
- Inferencing: Using the context or the knowledge of affixed to guess the meaning of an unknown word;
- Inferencing (Reprocessing to get the meaning of a word): The act of rereading a phrase, a clause or sentence in order to infer the meaning of an unknown word;
- Translating: Using mother tongue to provide equivalents for a word;
- Using a dictionary;

- Decoding: Breaking a word into syllables in order to easify the pronunciation or processing its meaning;

- Word identifying: This refers to the reader's attempt to get the meaning of an unknown lexical item by comparing it to its closest possible neighbor, which bears some phonological similarity;

- Grammatical analyzing: Using the knowledge of grammar to interpret and understand a word, a phrase or a sentence; and

- Imagery: Using visual images and visualizing the content of a text in order to understand.

2.7.2.7 Reading Strategy Classification by Tang (1997)

Tang (1997; cited in Wirotanan. 2002) has classified strategies used in reading into four main categories as follows:

Category 1: Text-based Strategies

- Focusing on vocabulary;
- Relating to the prior sentences in the text; and
- Summarizing or making conclusion.

Category 2: Text Structure-based Strategies

- Looking for key words;
- Looking for main ideas; and
- Recognizing the text structure.

Category 3: Text and Prior Knowledge Combined Strategies

- Relating to prior experience or knowledge;
- Evaluating the content of the text; and
- Forming hypothesis.

Category 4: Self-corrective Strategies

- Adjusting reading speed;
- Skipping unknown words or terms; and
- Borrowing words from another language or switching language.

Tang (1997) has classified reading strategies into four main categories. These include Text-based Strategies, Text Structure-based Strategies, Text and Prior Knowledge Combined Strategies, and Self-corrective Strategies. For Text-based Strategies, they refer to the methods the readers use to construct meanings of the text by focusing on the selected components of the text such as words, phrases, or clauses. Text Structure-based Strategies refer to the readers' attempt to use their knowledge of text organization to aid their comprehension. In Text and Prior Knowledge Combined Strategies, the readers use both information from the text and their prior knowledge about content, language, and their world experience, to construct the meaning from the text. Lastly, Self-corrective Strategies refers to the readers' procedural knowledge for planning, monitoring, and evaluating their comprehension.

2.7.2.8 Reading Strategy Classification by Sheorey and Mokhtari (2001)

Sheorey and Mokhtari (2001) have done a research work on 'Differences in the Metacognitive Awareness of Reading Strategies among Native and Non-Native Readers'. The data for their study were collected through the 'Survey of Reading Strategies (SORS)' which was used to discover the reading strategies employed by college students. The reading strategy classification on SORS can be classified into three main categories as follows:

Category 1: Metacognitive Strategies

- Setting purpose for reading;

- Previewing text before reading;
- Checking how text content fits purpose;
- Noting text characteristics;
- Determining what to read;
- Using text features (e.g. tables);
- Using context clues;
- Using typographical aids (e.g. italics);
- Predicting or guessing text meaning; and
- Confirming predictions.

Category 2: Cognitive Strategies

- Using prior knowledge;
- Reading aloud when text becomes hard;
- Reading slowly and carefully;
- Trying to stay focused on reading;
- Adjusting reading rate;
- Paying close attention to reading;
- Pausing and thinking about reading;
- Visualizing information read;
- Evaluating what is read;
- Resolving conflicting information;
- Re-reading for better understanding; and
- Guessing meaning of unknown words.

Category 3: Support Strategies

- Taking notes while reading;

- Underlining information in text;
- Using reference materials;
- Paraphrasing for better understanding;
- Going back and forth in text; and
- Asking oneself questions.

Sheorey and Mokhtari (2001) have classified reading strategies into three main categories which are Metacognitive Strategies, Cognitive Strategies, and Support Strategies. Metacognitive strategies are those intentional, carefully planned techniques by which learners monitor or manage their reading. Cognitive strategies are the actions and procedures readers use while working directly with the text. These are localized, focused techniques used when problems develop in understanding textual information. Finally, the support strategies are basically support mechanisms intended to aid the reading in comprehending the text such as using a dictionary and taking notes.

2.7.2.9 Reading Strategy Classification by Salataci (2002)

Salataci (2002) has proposed two main categories of the reading strategy classification based on his research work on 'Possible Effects of Strategy Instruction on L1 and L2 Reading'. His reading strategies can be classified as follows:

Category 1: Bottom-up Strategies

1. Individual Word Focus

- a) Questioning meaning of word; and
- b) Using dictionary.

2. Intrasentential Features

- a) Questioning clause or sentence; and

b) Questioning grammatical structure.

3. Restatement

a) Paraphrasing; and

b) Rereading.

Category 2: Top-down Strategies

- Predicting;
- Confirming of prediction;
- Making inferences;
- Using prior knowledge;
- Questioning/ assessing/ commenting;
- Skimming/ scanning;
- Making reference;
- Visualizing; and
- Summarizing.

The reading strategy classification by Salataci (2002) can be divided into two main categories: Cognitive Strategies and Metacognitive Strategies. Cognitive Strategies aid the readers in constructing meaning from the text. Salataci has provided a binary division of Cognitive Strategies as Bottom-up and Top-down. Within the sub-category of Bottom-up Strategies, it has three strategies including individual word focus, intrasentential features, and restatement. Within Top-down Strategy subcategory, it includes nine strategies such as predicting, making inferences, and using prior knowledge. The second category is the category of Metacognitive Strategies which are strategies that function to monitor or regulate cognitive strategies. They include commenting on task and commenting on behaviour.

2.7.2.10 Reading Strategy Classification by Anderson (2003)

Within the research work of Anderson (2003) on the topic 'Scrolling, Clicking, and Reading English: Online Reading Strategies in a Second/ Foreign Language', he presents a list of three main reading strategy categories: Global Reading Strategies, Problem Solving Strategies, and Support Strategies.

Category 1: Global Reading Strategies

- Guessing what the content of the text is about;
- Using prior knowledge;
- Designing what to read closely and what to ignore;
- Scanning;
- Reviewing the text first by noting its characteristics like length and organization;
- Using typographical features like bold face and italics to identify key information;
- Participating in live chat with native speakers of target language (English);
- Participating in live chat with other learners of target language (English)

Category 2: Problem Solving Strategies

- Getting back on track when losing concentration;
- Rereading the text to increase understanding;
- Paying more attention to the text;
- Reading slowly and carefully to make sure the understanding of the text;
- Guessing the meaning of unknown words or phrases;
- Distinguishing the fact and opinion in the texts;
- Visualizing information;

- Adjusting the reading speed; and
- Stopping from time to time and thinking about the texts.

Category 3: Support Strategies

- Thinking about information in both English and mother tongue;
- Asking oneself questions;
- Using reference materials;
- Reading aloud;
- Printing out the text, then underlining or circling information;
- Translating from target language into mother tongue; and
- Taking notes while reading.

2.7.2.11 Reading Strategy Classification by Ozek (2006)

Ozek (2006) has demonstrated the findings of her research work on 'A study on the Use of Cognitive Reading Strategies by ELT Students' that the reading strategies can be classified into three main categories as follows:

Category 1: Pre-reading Strategies

- Using the title;
- Skimming the text;
- Thinking about the previous knowledge on the topic of the text;
- Reading the first line of each paragraph; and
- Using pictures/ illustrations.

Category 2: While-reading Strategies

- Consulting the dictionary for important words;
- Guessing the meaning of a word from the context;
- Skipping some unknown words;

- Reading without translating word-for-word;
- Thinking aloud during reading;
- Guessing the meaning of a word from the grammatical category;
- Thinking of situation to remember a word;
- Considering other sentences to understand the meaning of a sentence;
- Visualizing events;
- Recognizing organization;
- Taking notes
- Assimilating the text with the passage events;
- Assimilating the text with the background information; and
- Rereading a sentence.

Category 3: Post-reading Strategies

- Classifying words according to their meanings;
- Classifying words according to their grammatical categories;
- Summarizing the main ideas;
- Rereading the text to remedy comprehension failures; and
- Rereading the text to remember important information. Ozek has made use

of data from the self-report questionnaire and think-aloud protocol to investigate ELT students' use of reading strategies. Reading strategies have been evaluated under three headings: pre-reading, while-reading, and postreading. She presents a list of five strategies which are evaluated under the prereading strategy heading; fourteen strategies under the while-reading strategy heading; and also five strategies evaluated under the post-reading strategy heading.

2.7.2.12 Reading Strategy Classification by Willingham (2006)

Willingham (2006) has proposed two main categories of the reading strategy classification based on the article on reading from the National Reading Panel (2000 cited in Willingham, 2006: 43). Willingham's reading strategy classification can be shown as follows:

Category 1: The strategies which are designed to encourage students to relate sentences to one another:

- Graphic organizer;
- Question answering;
- Question generation;
- Summarization;
- Mental imagery;
- Cooperative learning;
- Story structure; and
- Multiple strategy instruction.

Category 2: The strategies which are designed to encourage students to relate sentences to things they already know:

- Prior knowledge; and
- Vocabulary-comprehension relationship.

The reading strategy classification of Willingham (2006) can be categorized into two main categories. Within the first category, it includes many strategies; for example, graphic organizer strategy which helps learners to learn how to make graphic representations of texts; question answering strategy relates to the questions posed by the teacher in order to check the information the students obtain from the

text after finishing reading; and question generation strategy can help students to generate their own questions. Within the second category, it includes only two strategies: prior knowledge strategy which helps students to apply what they know from their own lives to the text; and vocabulary-comprehension relationship which students are encouraged to use background knowledge to make educated guesses about the meaning of unfamiliar words.

2.7.2.13 Reading Strategy Classification by Zhang and Wu (2009)

Zhang and Wu (2009) have proposed three main categories of the reading strategy obtained through The Survey of Reading Strategies (SORS) that was developed to measure the metacognitive awareness and 'perceived' use of reading strategies of adolescent and adult learners of English as a second language (ESL) while reading school related materials in English. The reading strategy classification by Zhang and Wu includes:

Category 1: Global reading strategies (GLOB) which are the intentional, carefully planned techniques by which learners monitor or manage their reading.

1. Having a purpose in mind when reading;
2. Thinking about whether the content of the text fits one's reading purpose;
3. Reviewing the text to know about its length, organization and main idea;
4. Deciding what to read closely and what to ignore when reading;
5. Using one's prior knowledge (e.g., knowledge about the theme of the text, or grammar knowledge) to help one understand what one reads;
6. Using tables, figures, and pictures in text to increase one's understanding;
7. Using context clues to help one better understand what one is reading;

8. Using typographical features like bold face and italics to identify key information;

9. Checking one's understanding when coming across new information;

10. Trying to guess what the content of the text is about when reading;

11. Checking to see if one's guesses about the text are right or wrong; and

12. Analyzing critically and evaluating the information presented in the text rather than passively accept everything

Category 2: Problem-solving strategies (PROB) which are the localized, focused techniques used when problems develop in understanding textual information.

1. Reading slowly and carefully to make sure one understands what one reads;

2. Adjusting one's reading speed according to what one is reading;

3. Stopping from time to time and think about what one is reading;

4. Trying to picture or visualize information to help remember what one reads;

5. When text becomes difficult, re-reading it to increase one's understanding;

6. Guessing the meaning of unknown words or phrases when reading; and

7. Trying to get back on track when one loses concentration

Category 3: Support strategies (SUP) which are the basic support mechanisms intended to aid the reader in comprehending the text.

1. Taking note of the key expressions and ideas while reading;

2. Underlining or circling information in the text to help one remember it;

3. When text becomes difficult, reading aloud to help one understand what one reads;

4. Using reference materials (e.g., a dictionary) to help one understand what one reads;

5. Paraphrasing (restating ideas in one's own words) to better understand what one reads;

6. Going back and forth in the text to find relationships among ideas in it

7. Asking oneself questions one likes to have answered in the text;

8. Translating from English into one's native language when reading; and

9. Think about information in both English and one's mother tongue when

Reading

In conclusion, reading strategies have been classified differently in various ways by different researchers. This depends on 1) the researchers' own experience; for example, as language learners, or language teachers, 2) the researchers' research works, and/or 3) the researchers' literature review. Some reading strategies have been classified into distinctive categories, while some have been made in lists. Even though the classification systems of different researchers are different, some common characteristics exist. In other words, there are similar reading strategies in many researchers' strategy classification although they are called by different names.

Moreover, reading strategies are very important for learners since they encourage learners to take control of their learning away from the teacher. That is to say, the learners with well-trained reading strategies would become more autonomous learners.

While the importance of reading strategies cannot be overestimated for L1 English readers, Sarig (1987) notes that an individual learner's reading moves are unique and that instructing the learner to make the right move is a complicated matter.

For the role reading strategies play in the general reader's comprehension, Salmeron et. al. (2005) indicate that reading strategies may be an important variable in reading comprehension, because reading strategies not only affect the amount of information a reader reads a particular text, but also the order in which she reads it. For instance, when reading a text, a reader may follow a reading strategy which guides her to read the paragraphs that interest her and overlook the other information she feels is uninteresting.

As indicated by Block (1986), knowledge of the components and management of the reading process is extremely important because without it L2 English educators must resort to designing reading programs based on intuitions and guesses about students' problems. Commenting on the importance of reading strategy research, Carrell (1991) notes that studies of this nature can reveal how L2 English readers manage interactions with written texts and how strategies are related to reading comprehension. Addressing another important area of caution, Anderson (1991:469) reminds us that "[it] is not sufficient to know about strategies; a reader must also be able to apply them strategically". Additionally, his study indicates that poor readers cannot determine whether they apply the strategies successfully, even though they may be aware of the right kinds of strategies to use.

According to Jiménez, Garcia and Pearson's study (1996), investigating the reading knowledge and strategic processes of bilingual Latinos students, educators can enhance reading instruction by providing alternative models of proficient reading for learners. As indicated by Anderson (1999), reading, one of the essential language skills, is an active, fluent process in which the readers build meaning out of the reading material. Meaning is not located in the printed page, nor is it in the reader's

head. Rather, meaning is constructed by a synergy which integrates the words on the printed page with the reader's background knowledge and experiences. However, as illustrated by Anderson (1999), ESL/EFL learners' reading tends not to be fluent because they are not actively engaged with the text in a meaningful way. Addressing this challenge in the EFL/ESL classroom, Anderson suggests that language teachers teach L2 readers how to successfully orchestrate the use of strategies and how to monitor their own improvement.

In the same vein, Sheorey and Mokhtari (2001:446) believes that metacognitive reading strategy instruction should be integrated with the overall reading curriculum because "[such] instruction can help promote an increased awareness of the mental processes involved in reading and the development of thoughtful and constructively responsive reading".

Metacognition is important in academic achievement. Metacognition comprises knowledge and control of cognition (Baker & Brown. 1984; Brown, Bransford, Ferrara, & Campione. 1983; Flavell. 1979). This study examined metacognitive knowledge of reading strategies and memory. Metacognitive knowledge of reading strategies includes knowledge of strategies that can be brought to bear during reading, and to comprehension and recall of text. Metacognitive knowledge about memory includes knowledge about an individual's cognitive resources, the nature of the memory task, and knowledge of the strategies for remembering and recalling information. From the research we know that learners who have greater awareness of reading and memory strategies have better academic achievement (Paris, Lipson. & Wixson. 1983; Paris & Aka. 1986; Schneider & Pressley. 1997; Weinstein & Mayer. 1986). A number of authors (e.g., Borkowski,

Carr; Rellinger. & Pressley. 1990; Borkowski & Mutukrishna. 1995) have also suggested that metacognitive knowledge is related to aspects of motivation. The motivational aspects that have been given the greatest attention in the research include causal attributions for success and failure, self-efficacy, and feelings of control. One area in which there is evidence of the relationship between metacognitive knowledge and motivation has been in memory performance. For example, Kurtz and Borkowski (1984) found that when students made attributions to controllable factors they were more likely to subsequently use memory strategies on transfer and generalization tasks. Other studies have indicated that attributions to controllable factors (such as effort) are related to metacognitive knowledge, memory strategy use, and performance (Borkowski et al. 1990; Schneider, Borkowski, Kurtz, & Kerwin. 1986). Several training studies have also shown that where attribution training and metacognitive training are combined there are positive effects on metamemory performance and strategy knowledge (see Borkowski & Krause. 1985). Studies involving causal modelling that have investigated the predictive role of a number of motivational variables, such as self-concept and attributions on metamemory and memory behaviour, also have pointed to the direct effect of achievement motivation on memory performance, at least for German students in Grades 5 and 7 (Schneider, Korkel, & Weinert, 1987). More recent studies of the relationship between motivational and metamemory variables have included examination of classroom and school context variables that are thought to influence academic achievement (e.g., Moely, Santulli, & Obach. 1995). Such studies also identify a positive relationship between motivation and metamemory. A second area of evidence comes from studies of reading achievement. For example, Schunk's (1989, 1991) research indicated that