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A STUDY ON METACOGNITIVE STRATEGY NEEDS OF GULHANE MILITARY MEDICINE ACADEMY STUDENTS ON READING MEDICAL TEXTS

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M.A. THESIS

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Süleyman DAVULCU'YA ait " A Study on Metacognitive Strategy Needs of Gulhane Military Medicine Academy Students on Reading Medical Texts" adlı çalışma jürimiz tarafından İngiliz Dili Öğretmenliği Anabilim Dalına YÜKSEK LİSANS TESİ olarak kabul edilmiştir.

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ÖZET

Bu çalışma yabancı dili İngilizce olan bir grup Türk tıp fakültesi öğrencisinin yabancı dildeki tıbbi metinleri okumada ihtiyaç duyacakları metakognitif strateji ihtiyaçlarını belirlemeyi amaçlamaktadır.

Bu çalışma altı bölümden oluşmaktadır. Birinci bölüm çalışmanın kuramsal çerçevesini sunmaktadır. Aynı zamanda çalışmanın amacını, kapsamını, varsayımlarını, ve çalışmada kullanılan veri toplama ve değerlendirme metotlarını ortaya koymaktadır.

İkinci bölüm, konuyla ilgili kaynak taramasını kapsamaktadır. Bu bölüm genel olarak okuma becerisi ve okuma becerisi için kullanılan stratejilere değinmektedir. Daha detaylı olarak okuma becerisinin dil öğrenmede yeri, okuma türleri ve okuma stratejileri yer almaktadır.

Üçüncü bölüm araştırmanın yöntemini, dördüncü bölüm ise veri analizini ve tartışmasını kapsamaktadır. Beşinci bölüm önerilerin yapıldığı ve örnek bir ders planının olduğu bir bölümdür.

Son bölüm ise çalışmanın kısa bir özetinin yapıldığı ve sonuçların ortaya konduğu sonuç bölümüdür.

ABSTRACT

This study aims to determine the metacognitive strategy needs of a group of Turkish medicine academy students in reading medical texts.

The study is composed of six chapters. The first chapter offers a background to the study. The aim and scope of the study are given in this chapter along with the method and assumptions.

The second chapter presents literature review. This chapter provides a brief history of reading skill and mentions strategies for reading comprehension. It then discusses the position of reading skill in learning a foreign language, and informs about reading models and reading strategies.

Chapter three deals with the research methodology, whereas chapter four presents the data analysis and discussion of the results. Chapter five includes suggestions, pedagogical implications and a sample lesson plan.

Chapter six, the conclusion, provides a brief summary of the study and the results.

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To my wife,

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CHAPTER I

INTRODUCTION

There has been growing research interest in recent years concerning theories of how a second/foreign language is learned with a great deal of emphasis on the role of leaner in their learning process. Insights from both humanist psychology stressing the importance of self-concept in adult learning and cognitive psychology emphasizing learner's mental processes, have guided language-teaching methodologies that have shifted the focus from teacher to the learner. The development of teaching methods reflecting humanist and cognitive views of learning has increased the concern to "make the learner a better learner" by helping them "learn how to learn" (Wenden, 1991:1-2).

Learner training aims to help learners consider the factors that affect their learning and discover the learning strategies that suit them best so that they may become more effective learners and take on more responsibility for their own learning. The effectiveness of using learning strategies for learner autonomy has been supported by studies and findings show that appropriate use of strategies leads to improvement in proficiency or achievement overall or in specific skill improvement (Oxford, 1993). Among these skill areas is that of reading skill, development of which requires the learner to use both cognitive and metacognitive strategies to promote greater comprehension of foreign language texts.

Reading theory and practice have undergone significant changes since the late 1880s (Dubin and Bycina, in Celce-Murci, 1991; Grabe, 1991). During the last half of the 1800s, when the Grammar Translation Approach was popular the focus was on reading. Reading was taught through matching the words in the text with their native language equivalents. In the 1960's when Audiolingualism was the most widely used method, the reading comprehension was considered to be merely a device for which

the main function was to promote oral communication skills (Larsen-Freeman, 1986; Richards and Rogers, 1986).

Today, however, reading is emphasized as a separate skill in the teaching of English as a foreign language (EFL). Most survey research carried out at universities (Grabe, 1986) concludes that EFL students use the reading skill the most, and they consider it the most important skill for future academic success. An awareness of importance of reading comprehension for students who need English for academic purposes has led to an expansion of research in this field. As a result, the major interest in reading comprehension has centered on reading strategies since research evidence suggests that successful readers differ from less successful readers mainly in their strategic approach towards the text they are reading (Shih, 1992).

Effective reading strategies vary according to different researchers (See Chapter 2). For instance, Auerbach and Paxton (1997), Shih (1992) divide reading strategies as cognitive and metacognitive. Cognitive strategies refer to the actions taken to manipulate the learning material. On the other hand, metacognitive strategies refer to one's knowledge and control of the strategies employed during a learning task. Metacognitive strategies, which affect learning indirectly (Oxford, 1990), are the main focus of this descriptive study.

The fact that reading has been regarded as an important academic skill is the main focus of this research. The belief that learner strategy training should be combined to the syllabus of a language program has led to the research interest in investigating the reading strategies learners need to develop to become effective readers and thus carry out their academic strategies successfully.

1.1. Background of the Study

Effective reading is crucial for students in academic environments to understand and learn the academic material. As a medicine academy Gülhane Military Medicine Academy (GMMA) aims to provide Turkish Army with the well-equipped doctors. In order to accomplish this mission it follows the up-to-date improvements in medical area and diverts this information to its curriculum. The aim of the English courses, in this respect is to make the students be able to read and understand and comprehend this incoming data, namely international medicine literature. Therefore, ability to understand texts is crucial for the students at GMMA and getting the meaning out of context gains priority.

In order to accomplish their various reading tasks these students need to be skilled in utilizing reading comprehension strategies. Students' knowledge of how to use strategies appropriately and effectively, rather than use of specific strategies, is likely to lead more successful reading comprehension (Anderson, 1991). Students with metacognitive knowledge and use of metacognitive strategies can thus make greater gains in reading tasks.

1.2. Statement of the Problem

Anecdotal evidence indicates that the students at GMMA do not possess a well-balanced repertoire of the necessary reading strategies that can enable them to cope with the texts they read for their academic class contents. They fail in reading and comprehending various texts. This conclusion was drawn from the observations of students' performances.

A major reason for failure in academic contexts seems to lie in the fact that students lack a general awareness of how they are going to accomplish a reading

task. They do not seem to know how to handle a text, which requires proficiency, planning for the task, and effective reading ability.

Effective use of strategies leads to better comprehension. Therefore, students need to have metacognitive knowledge and employ metacognitive strategies to understand and learn from texts.

1.3. Aim and Scope of the Study

The importance of metacognitive knowledge and use of metacognitive strategies during reading to enhance comprehension in texts provides the basis for this study. For this purpose, the first step to be taken has been to discover cognitive reading strategy profile of a group of students at GMMA by administering them a questionnaire (See Appendix 1) and then identify the strategies learners need to develop with the help of Think Aloud Protocols (TAPs). During the application of these aims the following questions will be asked:

- What are the cognitive reading strategies that the students at GMMA employ while reading in English?
- Is the strategy instruction they receive parallel with the strategies they employ?
- What metacognitive knowledge and metacognitive strategies do the students possess in the use of reading comprehension strategies?

This study will be carried out at GMMA. In order to gather data tools that will be used are questionnaires, checklists, TAPs and interviews.

1.4. Method

Firstly, the literature related to reading and reading comprehension strategies will be reviewed in order to provide theoretical background to the study. Next, a cognitive reading comprehension questionnaire will be administered to the third-year students studying at GMMA. On the same day, the checklist will be given to the instructors to investigate strategy training at GMMA. Then, randomly chosen students among the main group will do TAPs in order to present real time strategy use. The results will be analyzed both quantitatively and qualitatively in order to provide cognitive reading strategy profile of the group. Just after the TAPs, the students will be interviewed in order to gather data about their metacognitive knowledge and their metacognitive strategy use. The recorded TAPs and interviews will then be transcribed and analyzed qualitatively. Later, pedagogical implications and suggestions for further research will be given. After that, a sample lesson plan will be given. Finally, the results will be analyzed and then interpreted.

1.5. Assumptions

The following assumptions will be taken into consideration through this study.

1. Students at Gülhane Military Medicine Academy are the target group.
2. Students are able to report which strategies they use.
3. Questionnaires, checklists, TAPs and interviews are ways to gather information.
4. Students' current proficiency level is intermediate.
5. Materials used (such as student books and others) and classroom atmosphere are accepted the same.
6. Students' daily lives do not differ greatly from one to another.

CHAPTER II

REVIEW OF LITERATURE

This chapter reviews the literature on reading comprehension and reading strategies both cognitive and metacognitive in order to provide background information for the present study. The first part discusses the role of reading in foreign language learning. The next part informs about the nature of reading and preliminary theories of reading. In the last part, strategies will be presented with a particular focus on metacognition and metacognitive strategies.

2.1. The Role of Reading in Foreign Language Learning

Theory and practice of reading comprehension has recently been a central issue in EFL and ESL instruction. It gained such a great emphasis as a result of the recognition of the importance of reading for the people who learn English as a foreign or second language. As Carrell (1988; 1) puts it, reading is by far the most important of the four skills in foreign language or second language. Dubin and Bycina (1991) emphasize the importance of reading with the following sentences:

> "..., modern language teachers often find that they must also serve as reading skills teachers since the emphasis on reading has become one of the primary curricular concerns in second and foreign language programs. In fact, reading is often the chief goal learners in countries where English is taught as a foreign language; while reading and writing together are the central activities in most intermediate and advanced ESL programs at the secondary and post-secondary levels. Attention to academic reading, therefore, has come to be one of the most important methodological topics in the field of teaching English to speakers of other languages".

The comments stated above can easily explain why "reading is the main reason" (Carrell, 1988; 1) for the students learning English all over the world. This importance is supported by the research evidence that ESL students at universities think that reading is the most important skill for them (Carrell in Carrell, Devine and Eskey, 1988; Grabe in Dubin, Eskey and Grabe, 1986; Dubin and Bycina in Celce-Murcia, 1991). All university students studying EFL or ESL contexts need to read extensively in the target language to carry out their academic studies successfully.

There is no doubt that reading has gained increasing importance over the last decades. Once seen as an adjunct to speaking skills, today it is a separate skill with its own theory. Reading is the part of the learning process. As Grabe (in Dubin,Eskey and Grabe, 1986; 36) defines it, reading is learning.

2.2. Reading Process

As it was stated in the previous section, reading has become one of the most important areas in foreign language learning. This section provides superficial information about reading and reading theory before the discussion of the literature on metacognition and metacognitive strategies due to the fact that it is important to review some underlying insights about reading process and the models evolved out of these insights.

Reading is simply defined by Eskey (in Dubin, Eskey & Grabe, 1986) as "making sense of the world" (p.6). According to Eskey, reading is mainly about cognitive process during which readers try to relate new information presented in the text with the information they have gained during their experience of life. It can be deduced that reading is an active process rather than a passive one (Goodman, 1970; Smith, 1971). Goodman describes reading as a *psycholinguistic guessing game* which is a process in which readers read the text, try to guess what is coming next , read the text again so as to see if their hypotheses are right, then confirm or

disconfirm and make new hypotheses. During this process of relating new information to their theory of the world, readers utilize the information found in the text and make it part of their schemata. Goodman (1970) suggests that readers make us of three systems; namely graphophonic, syntactic and semantic. Readers do not have to decode all the letters or words. Instead, they reconstruct the text by utilizing the graphic cues they have sampled with the help of linguistic code. Putting it simply, readers make use of their expectations and interaction with the text to make sense what is read.

In 1988 Goodman suggested five processes that are occurred in brain while reading a text: recognition, prediction, confirmation, correction and termination. In the first step brain recognizes the graphic displays, letters and word, and then initiates the reading process. In the second step, prediction, brain looks for "order and significance in sensory inputs" (p.16). In the confirmation phase brain confirms or disconfirms the input presented. Correction occurs as the result of confirmation process. The final process is termination when the reading task is completed. Termination can also occur when the text is uninteresting or the content is too familiar or when it is not appropriate for the purpose (Goodman, in Carrell, Divine & Eskey, 1988).

Because first language reading research has made impressive progress in investigating the process of reading, second language reading research has refused mainly on reading theory and instruction in order to find out how to enhance reading comprehension and build reading strategies. In second language research, reading is seen as purposeful, selective, rapid, interactive and flexible (Carrell, 1987; Smith, 1985; Trayer 1990; Vacca et al., 1991; Wilf, 1988). It is often viewed as a multifaceted, a complex skill which is composed of psychological and social elements. Eskey (in Dubin, Eskey & Grabe, 1986) argues that there are two sub-processes of the reading process: identification and interpretation. Identification refers to a rapid and accurate understanding of "What the text says" (p.8) changing the written form into the language is performed during identification process. In this

step the reader makes sense of the information presented in the text. Grabe (in Carrell, Divine of Eskey, 1986) emphasizes the importance of these two steps. It is this emphasis to help interactive theory emerge.

2.3. Models of Reading

Like the reading theories in first language, different models of reading are discussed for second language learning. How a reader consumes the written language is the key issue in developing models of reading. Question about reading is answered through constructing theoretical models of what might take place when mind gets reading from what the eyes see on the page of print (Dubin and Bycina, 1991). These models are generally classified as Bottom-up, Top-down on Interactive (Vacca et al., 1991). The following part presents a discussion on these models.

2.3.1. The Bottom-Up Model

The first and the oldest of the three models is the bottom-up model. In this approach, second language reading was viewed as a decoding process: a reconstructing of the author's intended meaning through recognizing the letters and words (Carrell, 1987). According to bottom-up model of reading, the process is carried by graphic information embedded in the text. Eskey (in Dubin, Eskey & Grabe, 1986) defines this process as "the reader reads by moving his eyes from left to right". He or she identifies the features of letters; links these features together to recognize letters; combines letters to recognize spelling patterns; links spelling patterns to recognize words, and then proceeds to sentence, paragraph and the text itself (Vacca et al, 1991). Bloomfield (in Dubin and Bycina, 1991), one of the early supporters of bottom-up approaches to reading and a structural linguist describes the nature of reading as:

> "The person who learns to read acquires the habit of responding to the sight of letters by utterance of phonemes, this does not mean that he is reading to utter phonemes; he can be taught to read only after his phonemic habits are thoroughly established."

Therefore, in Bloomfield's view reading is seen as decoding writing into speech.

To sum up, in bottom-up model reading is a passive activity rather than an active one. It is a kind of decoding activity similar to children's first-language experience in terms of recognizing letters and sounding out simple words. A process known as miscue analysis showed that deviations from actual words of the text made by the readers during reading aloud were proved to be acceptable in terms of semantics. This analysis showed that although the readers couldn't decode the text, they were able to make sense of it.

2.3.2. Top-Down Model

The shortcomings of the bottom-up model led way to the emergence of the top-down model reading, which focuses on readers' approach to the text on the basis of prior knowledge, language and the theory of the world that they may have in regard to a particular text (Carrell, 1988). It became known as a psycholinguistic theory about reading. In this newer model, the role of the reader was considered to be quite active; they make predictions, check out hypotheses, and process information triggered by background or prior knowledge, they do not attempt to separate letters, rather they match what they already know with the meaning they derive from the written material (Carrekk, 1987; Dubin and Bycina,1991).

Top-down model of reading became so popular as it combined both psychological and linguistic insights into the process of reading. In Grellet's (1982) view it is a kind of "constant guessing game" (p.7) which stressed activities as guessing the meaning of the words, previewing on article before it and predicting what author will say next.

Essential part of reading, bringing meaning to text, is found in top-down model of reading. The reader anticipates the meaning, confirms or disconfirms his prediction, samples surface structure and makes less use of the print letters. It is on interaction between the reader and the text (McCormick, 1988). But, according to Stanowich (cited in Nunan, 1991) making hypotheses about what would come next would take much more time than decoding does. Eskey (in Dubin, Eskey & Grabe, 1986) believes that the top-down model underestimates the importance of necessary bottom of decoding skills for the readers, although it has made great contributions of an efficient reading theory.

2.3.3. Interactive Model

The fact that both of the reading models described earlier pages have certain shortcomings led way to the emergence of an alternative model of reading which puts together the two views. The result is called "interactive" (cited in Dubin and Bycina, 1991; Perfetti, 1985; Rumelhort, 1977; Stanovich, 1980) model of process of reading. In this model, reading is seen as a process in which both top-down and bottom-up processes interact simultaneously. It processes two types of interaction: the interaction between the reader and the text, and the interaction between bottom-up and top-down processing skills. Interactive theory acknowledges the role of previous knowledge and prediction, but at the same time reaffirms the importance of rapid and accurate processing of the actual words of the text (Dubin and Byycina, 1991).

According to the interactive model the reading process works this way; first graphic information, clues to the meaning, is taken from the page by the help of eyes and it is carried to the brain. Then, the brain tries to match its prior knowledge with the new incoming data in order to make sense of newly received information. On the basis of previous experience, predictions are made about the content of the text, which upon further sampling of the data is either confirmed or revised (Dubin and Bycina, 1991).

Although the interactive model of reading is criticized for lacking a comprehensive general theory, it offers a promising approach to a contemporary theory of reading. The interactive approach seems to overcome the deficiencies of both the bottom-up and top-down models. The two processes, bottom-up and top-down, are complementary; one is not able to function without the other.

2.4. Reading Strategies

Due to the fact that reading in second language was given great importance last decades, reading strategies have been the main focus of investigation of reading research since 1980s (Anderson, 1991; Carrell et al., 1989; Grabe, 1991). In the following section, theoretical background about reading comprehension and reading strategies will be presented, and then the classification of reading strategies will be discussed.

2.4.1. Reading Strategies

In order to explain reading strategies it is important to give information about learning strategies. The concept of "learning strategies" is based in part on cognitive learning theory, in which learning is seen as an active, mental, learner-constructed process. Language learning strategies were defined by many researchers in many

studies. Wenden and Rubin (1987) define learning strategies as " ... any sets of operations, plans, routines, used by the learner to facilitate the obtaining, storage, retrieval, and use of information". Oxford (1990: p.1) states that learning strategies are steps taken by students to enhance their own learning. Hismanoglu (2000) points out that all language learners use language learning strategies either consciously or unconsciously.

Classification of language learning strategies has been made many times by many researchers. However, most of these classifications reflected the same categorizations. Rubin (1987) classifies the language learning strategies as learning strategies, communication strategies and social strategies. O'Malley's categorization divides the language learning strategies in three parts; namely metacognitive strategies, cognitive strategies and socioaffective strategies.

Oxford (1990; 17) assumes the language learning strategies as being oriented towards the development of communicative competence. Oxford separates strategies into two strategy orientations and six strategy groups. Figure 3 presents this categorization:

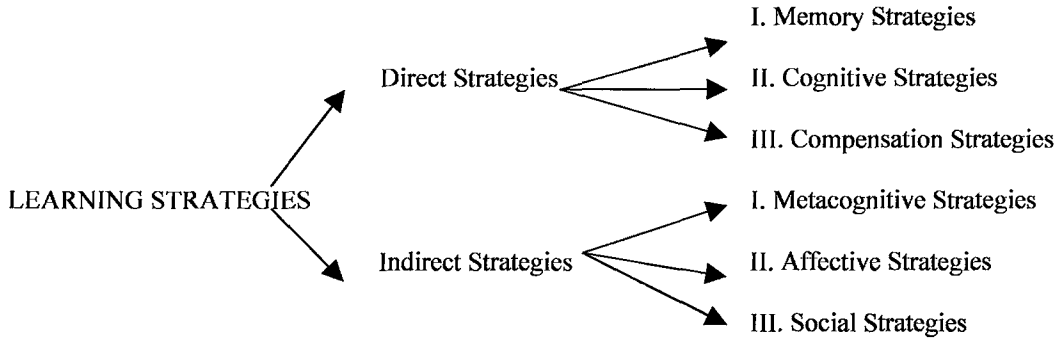

Figure 1. Oxford's Classification of Language Learning Strategies (Oxford, 1990; 16)

The direct learning orientation strategies involve the identification, retention, storage, or retrieval of words, phrases, and other elements of the target language. The indirect strategies concern the management of the learning and include such activities

as: needs assessment, activities planning and monitoring, and outcome evaluation. The indirect strategies also involve aspects that aid the learner in regulating emotions, motivation, and attitudes. These include routines for self-encouragement and the reduction of anxiety, and those, which address the actions of learners, take in order to communicate with others, such as asking questions for clarification and cooperating with others in communication.

Carrying these classifications to reading comprehension was a lot harder. As it is discussed earlier, reading is making sense out of what is written. In this respect the notion of "comprehension" emerges. In simple words comprehension can be described as extracting the required information from it as efficiently as possible. Comprehension, building from the text occurring within the reading process, extends the cover the utilization of derived meaning in its broader definition. Clorck and Clorck (1977) put forward two processes in reading comprehension: construction and utilization processes. The former refers to the way the reader constructs the meaning of the text through identifying surface, whereas the later is concerned about explaining how the reader utilizes this interpretation for further purposes- for registering new information, answering questions and the like.

Underlying these two processes is the assumption that readers use a number of strategies by which they infer what constitutes the text. A complex process like reading requires developing efficient strategies in order for full comprehension to take place. During the comprehension process, readers use strategies to overcome difficulties in order to facilitate comprehension. Readers, by using effective strategies process text effectively, monitor their comprehension and thus integrate the information with their existing knowledge. Reading strategies, the resource readers use in order to make sense of the material, refer to "the mental operations involved" (Barnett, 1988, 150) when readers approach and process a text efficiently. Research evidence suggests that efficient reading is not only determined by proficiency in the target language but also by effective use of strategies (Auerbach and Paxton, 1997; Carrell, 1991).

The view that suggests using effective strategies result in better reading performance is supported by research evidence (Cohen, 1990). Hosenfeld (in Wenden and Rubin, 1987) points out that successful readers use some form of contextual guessing-based on process of inductive reasoning. In another study, Carrell (1985) investigated the effects of strategies related to the text structure of a text and found out that using strategies to identify text structure helped learners recall the text better both in terms of main ideas and the supporting ones.

The conclusion drawn out from Block's (1986) study is that in order to be a proficient reader being able to read the printed language is not enough; what is needed to make sense of that printed language is the use of effective reading strategies. Readers use a number of strategies by which they infer what constitutes the text.

2.4.2. Classification of Reading Strategies

Researchers in second language acquisition have not been able to come to a consensus regarding what a strategy is (Wenden, 1991). The word "strategy" comes from a Greek word **strategia** meaning generalship or the art of war. Strategy has some basic characteristics: planning, competition, conscious manipulation, and movement toward a goal (Oxford, 1991). Because of its varying dimensions, different researchers have given names to different type of reading strategies. For example, Barnet (1988) classified reading strategies into two: text-level and word-level strategies. Text-level strategies include relating text to ones word knowledge, making predictions about the text, relating titles and pictures to the text, setting a purpose for reading, skimming for the gist and scanning for specific information. These strategies help the reader to assume the text as a whole so that they are also called "general comprehension" (Block, 1986), "global" (Young and Oxford, 1997), and "main meaning line" (Hosenfeld, cited in Barnett, 1988) strategies.

On the other hand, word-level strategies are more related to the smaller parts of the text; words in the text (Young and Oxford, 1997). Guessing the meaning from the grammatical category, contextual guessing, using words families and word formation rules to the meaning of a word are word-level strategies. Since the reader deals mostly with words, Block (1996) calls them as "local linguistic", Young and Oxford (1997) as "local" and Hosenfeld (cited in Barnett, 1988) as "word-related" strategies.

It can be easily realized that word-level strategies implies bottom-up strategies whereas text-level strategies refers to top-down approach. A reader starts with global understanding, text-level strategies, and move towards detailed understanding, word-level strategies. This seems to correlate with the current interactive reading theory.

In addition to classification above, Wenden and Rubin point out two major kinds of reading strategies: cognitive and metacognitive. A detailed discussion on cognitive and metacognitive strategies will be presented in the following section.

2.4.2.1. Cognitive Reading Strategies

Cognitive strategies are mental steps or operations that learners use to process both linguistic and sociolinguistic content (Wenden, 1991). According to Block (1986), they are strategies which are applied throughout a learning or problem-solving task, and they enable learners to gain knowledge or understanding of a task they are to perform through cognitive strategies (Rubin, in Wenden and Rubin, 1987).

The most common cognitive strategies are as follows:

- Recognizing the script of a language,
- Using the title to anticipate the text content,
- Skimming,
- Relating the background knowledge to the text content,
- Using the dictionary parsimoniously,
- Guessing,
- Thinking of a situation to remember a word,
- Rereading,
- Translation,
- Visualization,
- Recognizing organization,
- Taking notes,
- Summarizing,
- Classifying words,
- Scanning to find specific information,
- Distinguishing the main idea from supporting details,
- Interpreting text by going out it.

Greater importance has recently been given to cognitive reading strategies as research evidence reveals facilitative effect of such strategies on student's reading performance. Moreover, Wenden and Rubin (1987) reports that good comprehenders use their resources actively whereas poor ones don't.

Research on the effects of cognitive strategies on reading performance suggests that they help readers to improve their reading ability significantly and therefore, these strategies should not be neglected in the foreign or second language reading curriculum.

2.4.2.2. Metacognitive Reading Strategies

As mentioned earlier, learning strategies have been divided into two broad groups of cognitive, metacognitive strategies by O'Malley and Chamot (1990). According to Oxford (1990), learning strategies are divided into six categories: namely memory, cognitive, compensation, metacognitive, social, and affective strategies.

Being the main focus of this study, the following sections will be about metacognition, metacognitive knowledge and metacognitive strategies.

2.4.2.2.1. Metacognition

This part focuses on the definition and the significance of metacognition in reading comprehension from philosophical, psychological and theoretical perspectives. Some fundamental features of metacognition are discussed with respect to reading comprehension.

Metacognition is defined by many researchers (Garner, 1987; Oxford, 1990; Steward & Tie, 1983) as cognition of cognition, beyond, beside or with the cognition, and knowing about knowing. "If cognition involves perceiving, understanding, remembering and so forth, then metacognitinon involves thinking about one's own perceiving, understanding, and the rest" (Garner, 1987, 16). In her study, Yeşilbursa (2002) states that metacognition is the level of learning at which learners regulate their learning and where unconscious strategies become conscious in order for learners to reflection how they approach a task beforehand, how they are performing during the task, and then to evaluate their performance afterwards.

Thus, metacognition is generally used to describe our knowledge about how we perceive, think remember and act. In other words, it is what we know about what

we know. In psychological terms, metacognition is thought by some neurologists to occur in neocortex of the brain, and thus is peculiar to human beings. Nelson and Narens (1990) accept metacognition as a topic of interest in its own right and a bridge between areas e.g., between decision-making and memory, between learning and motivation, and between learning and cognitive development.

The term metacognition is "feeling of knowing" according to Miner and Reder (1994). It is the state of believing that a piece of information can be retrieved from memory even though that information currently cannot be recalled.

One definition of metacognition reveals the relationship between strategy, cognition and reading. According to O'Malley and Chomat (1990), "metacognition has been used to refer to knowledge about cognition of the regulation of cognition. Knowledge about cognition may include applying thoughts about the cognitive operations of oneself and others, while regulation of cognition includes planning, motivating, and evaluating a learning and problem solving activity"(p.99).

There are various definitions of metacognition differing somewhat from another. Most of the definitions have the same sense in common that is: 1) the knowledge that readers have about their own cognitive resources, and 2) regulation of a reader's cognitive processes, that is to say, control over strategies that are used to identify and overcome difficulties with text (Brown, 1985, cited in Abromitis, 1994). In other words, two aspects of metacognition, namely knowledge of cognitive processes, are the meeting point of those definitions presented by many researchers.

2.4.2.2.2. Metacognitive Knowledge

Metacognitive knowledge is the relatively stable information human thinkers have about their own cognitive processes and those of others (Flavel and Welman, cited in Wenden, 1998). Wenden (1998:515) points out that learners of different ages

and varying in learning proficiency acquire some knowledge about learning, which influences their approach to learning and the expectations they hold about the outcome of their efforts, that is, their metacognitive knowledge. Very simply, metacognitive knowledge refers to knowledge about learning. A more specific understanding of the nature of this knowledge, however, requires a consideration of the following: its defining characteristics and its categories.

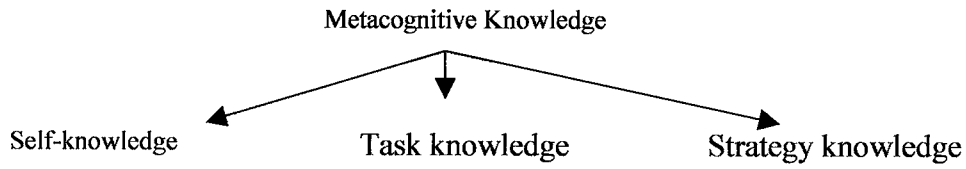

Figure 2. Classification of Metacognitive Knowledge

The first category of metacognitive knowledge; that is to say, self-knowledge or person knowledge (Wenden, 1998), refers to general knowledge learners have acquired about human factors that facilitate or inhibit learning. It is one's own conception about himself/herself as a reader. Learners may have knowledge about their proficiency in a given area. Language learners, for example, may have a notion of how well they read (Wenden, 1998). It also includes what learners believe about their effectiveness as learners in general. Finally, it refers to beliefs about their ability to achieve specific learning goals such as the knowledge or skills they need to read in a foreign language (Wenden, 1998). This knowledge identifies personal strengths and weaknesses in reading tasks. It can be said that learners own conceptions because they help them find their strengths and weaknesses that might facilitate reading.

The second category of metacognitive knowledge is task knowledge. Broadly defined, task knowledge is "knowing what information in a task is relevant to success in a particular learning situation thus deserving of greater attention" (Wade and Reynolds, 1989, 7). It refers to what learners know about the purpose of a task and how it will serve their language learning needs. It includes knowledge that is the

outcome of a classification process that determines the nature of a particular task (Wenden, 1998). Students who have task knowledge "focus on main ideas and develop integrated bodies of knowledge, in which details and examples are remembered for the purpose of describing or elaborating these ideas" (Wade and Reynolds, 1989, p.7). Thus students learn the material in a better way. Students who have task knowledge know how to reflect on what they know or do not know about the text to be handled, establish purposes and plans, identify information that is relevant to the task and important in the text, and evaluate their progress in light of their purposes.

The third category of metacognitive knowledge refers to knowledge about strategies used to deal with tasks. It is the general knowledge about what strategies are, why they are useful, and specific knowledge about when and how to use them. To understand a given text, it is essential that readers must process the information thoroughly. Thus, they need to have strategic knowledge, which involves decisions about what techniques are available and appropriate for a particular reader studying a particular text in order to accomplish a specific reading task.

2.4.2.2.3. Metacognitive Strategies

In the previous sections, it was stated that language-learning strategies have been divided into the three broad groups of cognitive, metacognitive and socio affective strategies by O'Malley and Chamot (1990). In this section, metacognitive strategies, as the main focus of this study, will be presented in details.

Different researchers have described the distinction between metacognitive and cognitive strategies differently. Wenden (1988, p.519) defines metacognitive strategies as "general skills through which learners manage, direct, regulate, guide their learning, i.e. planning, monitoring and evaluating".

What is metacognitive to one analyst is sometimes cognitive to another. Oxford (1990) defines "metacognitive" beyond, beside or with the cognitive. Therefore metacognitive strategies are actions which go beyond purely cognitive devices, and which provide a way for learners to coordinate their own learning process. In Wenden's (1998) words metacognitive knowledge refers to knowledge about learning. O'Malley and Chamet (1990:44) describe metacognitive strategies as higher order executive skills which can be applied to a variety of learning tasks.

Metacognitive strategies are essential for successful language learning. Oxford (1990) proposes that being new as a language learner, unfamiliar vocabulary, confusing rules, different writing systems, and inexplicable social customs may cause difficulties; therefore, learners lose their focus, which can only be regained by the conscious use of metacognitive strategies such as paying attention and over viewing/linking with already familiar material. O'Malley et al. stress the importance of metacognitive strategies in foreign language, saying: "students without metacognitive approaches are essentially learners with out direction or opportunity to review their progress, accomplishments, and future learning directions".

As mentioned earlier, Oxford (1990:136) divides metacognitive strategies into three strategy sets: Centering Your Learning, Arranging and Planning Your Learning, and Evaluating Your Learning. Ten studies form these groups, the acronym for which is CAPE (See Figure 3). She says that "Metacognitive strategies make language learners more CAPE-able" (1990, 137).

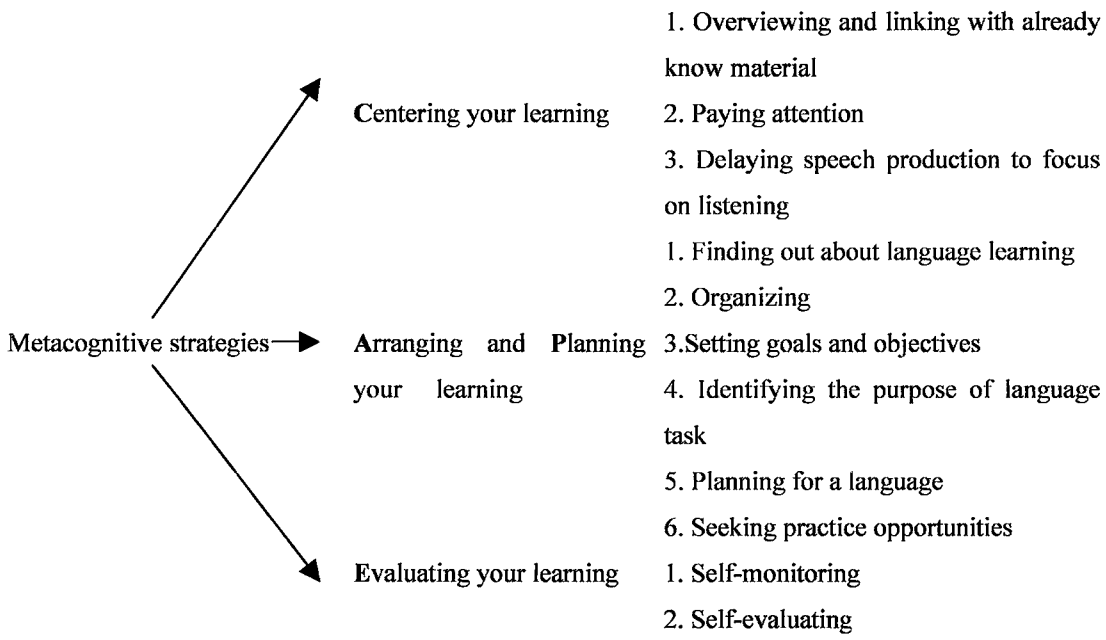

Figure 3.Diagram of the Metacognitive Strategies (Oxford, 1990, p.137)

As it can be seen in figure 2, centering includes three sub-categories: over viewing and linking with already known material, paying attention, and delaying speech production to focus on listening. Using these sets of three strategies, learners converge their attention on certain language tasks, activities, learners converge to associate the upcoming language activity with what is already known can be accomplished by following these steps: learning why the activity is being done, building the needed vocabulary, and making associations (Oxford.1990).

As can it obvious from the figure 3 that centering your learning has 3 sub-categories. Because of the fact that the last one is about listening and speech delay, it will not be mentioned in this study. Deciding in advance to pay attention in general to a language-learning task and to ignore distracters (by directed attention), and/or to pay attention to specific aspects of the language is important for the comprehension (Oxford, 1990:138) are the two sub-categories.

Arranging and planning learning is divided into six sub-categories: finding out about language learning; organizing; setting goals and objectives; identifying the

purpose of a language task; planning for a language task; seeking practice opportunities. Finding out about language learning is making efforts to find out how language learning works by reading books, and talking with other people, and then using the information to help improve one's own language learning (Oxford, 1990: 139). Organizing refers to understanding and using conditions related to optimal learning of the new language. Setting long-term goals, (such as being able to understand an informal conversation) and short-term goals (such as making a summary of given text for tomorrow) is important for language learning. For being meaningful, identifying the purpose of a task leads the language learner to a better learning. Reading a play for enjoyment, or reading a menu to order a meal are two kinds of the examples of this kind of strategy. Planning for a language task includes four steps: describing the task or the situation, determining its requirements, checking one's own linguistic resources, and determining additional language elements or functions necessary for the task or the situation (Oxford, 1990:139). Going to foreign/second language cinema, reading authentic material, talking to a native speaker, and many other activities are opportunities for practicing a foreign/second language.

The last category of metacognitive strategies includes self-monitoring and self-evaluating. It is important for a learner to identify his own errors in understanding the new language and determine which ones are important. He/she can improve his/her own motivation by evaluating himself/herself, for instance, by checking to see if he/she is reading faster and understanding more than 6 months ago (Oxford, 1990:140).

CHAPTER III

METHODOLOGY

3.1. Introduction

In this chapter, the research plan, the subjects of the study, the materials used, and the administration of these materials will be discussed.

3.2. The Research Plan

The purpose of this descriptive study was to identify metacognitive reading strategies that the students at Gülhane Military Medicine Academy (GMMA) need to develop in order to read medical texts not only before graduation but also after graduation. It was assumed that existing curriculum was not sufficient with the necessary metacognitive reading strategies that would help them deal with the text they encountered. To this end, the study first examined the actual strategies while they are reading a text, which was essential in order for the students to be able to talk about their strategies. Second, the study investigated what students thought about what they were reading a text and learning from it, which was the care of this study.

The data were obtained from a homogenous group of EFL students. To identify the strategies needed by the students, data were collected through Questionnaires, Checklists and Think Aloud Protocols and Interviews.

The initial step was the administration of the questionnaires and checklists. Questionnaires were given to the randomly selected students from first, second and third grades and they were designed to collect data on these students' cognitive reading strategy use. Checklists were given to the instructors at GMMA on the same

day as the questionnaires and they aimed to understand whether the existing reading curriculum provided opportunities for teachers to train their students in using the necessary cognitive reading strategies efficiently. In order to verify the data obtained through the questionnaires, Think Aloud Protocols (TAPs) were administered in the next step. TAPs have been widely used in reading strategy research since they reveal rich information about how readers carry out a mental activity. TAPs tend to yield rich data about cognitive processes (Someran et al., 1994). To obtain data on students' metacognitive knowledge and metacognitive strategy use, interviews were used. Interviews were chosen since they could provide highly informative data as regards metacognition (Garner, 1987). Both the Think Aloud Protocols and the interviews were used successively. The data obtained through both techniques were edited.

Questionnaires and TAPs were used as complementary research instruments in this study as no single method of inquiry is sufficient for all the purposes and contexts and each method has its own disadvantages with the advantages (O'Malley and Chamot, 1990; Oxford 1990). Questionnaires have often been criticized due to the belief that they may not provide the researchers with in-depth information about the actual strategy use because self reported data does not always reflect the actual process. For that reason, TAPs, which are considered to be affective tools in providing rich information about the actual information use, were chosen as the supporting instrument.

Investigation of the strategies through the TAPs created the groundwork for the discussion and accumulation of information about metacognitive strategies and knowledge. Both the Think Aloud and interview data were verbal in nature; they required qualitative analysis. The goal of this qualitative study was to understand reading behavior by getting the subjects to verbalize inner dynamics concerning how they need texts and what they know about it.

The results of the checklists given to GMMA instructors provided information on whether students of GMMA get training for the cognitive strategies. Checklists were found to be useful in such an inquiry as they are practical instruments to collect data on the presence or absence of certain behaviors (Best and Khan, 1988).

3.3. Subjects

This study was conducted at Gülhane Military Medicine Academy. Randomly selected a hundred students and eight instructors at GMMA participated in this study. Questionnaires were given to all students, but ten of them did TAPs.

The students at GMMA are military students with an English proficiency of beginner, intermediate and upper intermediate. The student sources of GMMA are Military High Schools, Anatolian High Schools, and State High Schools. Their experience in learning English covers approximately seven to eight years. They are seated for a proficiency exam before starting their education at GMMA. After the proficiency exam they are grouped according to the result of this test. There are three different levels at GMMA. Level A serves the upper intermediate students, whereas level B serves intermediate students. Level C, beginner, students are poor ones in English. They have a six-year education program. In the first three years they have English instruction. First graders have a 6-hour program in a week. Second graders and third graders are given 5-hour of English instruction every week. In their second year level C is connected with level B. In this year reading comprehension is given great importance because students receive many texts, mostly medical, to deal with. In the third year all students reach upper-intermediate level, and they are taught medical English. In the following year students have translation course.

Since they will be medical doctors when they graduate, they need to follow up-to-date literature in order to implement the new information to daily life. To

follow the literature means reading. On this ground, it is assumed that they need to have metacognitive strategies in order to carry out their assignments during their academic life and after graduation.

Apart from the students, 8 GMMA instructors were included in the data collection process. All of the instructors are experienced teachers who have 3 to 40 years of experience as English teachers and their ages range between 25 and 60.

3.4. Materials

The questionnaire used in this study includes two parts (see Appendix A). The students were asked to give information about their background that might be needed during data analysis process and were asked to choose among the given options. The second part is used to investigate the informants' cognitive reading strategy use while reading a text in English. This part is composed of 24 Likert-type items for which the respondents were to choose the most appropriate item by selecting among:

- Always true of me,
- Usually true of me,
- Sometimes true of me,
- Rarely true of me,
- Never true of me.

The items in the questionnaire were taken from the study that Bezci (1998) established at Hacettepe University. She (1998,30) mentioned that they were taken with little modification from Chamot, Cotteral, Oxford, Ruscioelli (cited in Bezci, 1998, p.30). The questionnaire is composed of all the strategies that are stated by these researchers. Modifications were crucial for the understanding of the students.

Teacher checklists investigated the same strategies in the student questionnaire and the instructors of GMMA were asked to tick the items that were important in terms of strategy instruction (See Appendix B).

Two texts were used in this study (See Appendices C and D); one for the warm-up stage one for the actual TAPs.

Four criteria were followed in selecting the texts: being informative, being interesting, probability of activating background knowledge and readability statistics. The one that was used at the warm-up stage, which was conducted by the researcher himself, was *Political English* (Crystal, 1995); the title of the selection for the TAPs was *Why Study Grammar* (Crystal, 1995). They were informative requiring the subjects to understand the context and learn from it. Literary texts were thought to be inappropriate in the circumstances of the study, in that they had to be relatively long for the subjects to have an understanding of the content.

Since this study was conducted to find out how students read texts to understand and learn from them, a-non-literary text was considered to be appropriate in the sense that it is informative enough to allow the students to learn from it.

Second, the text was expected to trigger the students' interest and curiosity. The text about studying grammar particularly was expected to arouse the subjects' interest because most of them have problems in reading grammar, coupled with the idea that they have to be good at it.

Third, the texts were believed to stimulate interaction between the subjects' anticipations in accordance with their background knowledge and the information presented in the texts. The text was thought to activate their conceptions and experiences about studying grammar and thus to prompt strategy use.

The chosen texts were not easy to comprehend. Using a difficult text in TAPs is the result of the idea that it will force the students to use the strategies. That is to say, a difficult text was expected to encourage them to make use of strategies. Otherwise they would not need to use any strategies.

The last material used to gather data from the students was the Interview Questions (See Appendix E). Consisted of two parts, questions about metacognitive knowledge of the students took place in the first part whereas the other part included subcategories of metacognitive strategies. Questions in the first part are those Çelik (1998) used in her study. Questions of second part were deducted from Oxford's (1990) metacognitive strategy list (See Chapter 2).

3.5. Administration of Materials

The first part of the data collection was piloting of the questionnaires. The piloting was done with the four teaches and twenty students. Doing so, it was aimed to see if the items in questionnaires were intelligible or not. After certain modifications were made the questionnaires were given to the students. Necessary information, such as the purpose of this study and they won't be graded according to answers they would give, were given to the students beforehand. Questionnaires were conducted in a two-hundred-student class with the researcher. On the same day instructors at GMMA were given checklist and they were also informed about the study, the purpose and the importance of their responses.

As for the TAPs, two pilot studies were conducted with the students at GMMA. After the warm-up session, in which researchers samples the procedure, the students were asked to think aloud while reading *Why Study Grammar?*. The findings were used to find out whether the text was interesting for the students and whether they required the students to use cognitive strategies. Results cast light to the

fact that both the TAPs and interviews can be held together in one session, and that the text was interesting.

After the piloting procedure, TAPs and interviews have taken place. Data were collected through TAPs and interviews with ten subjects in ten sessions. Each session had three phases:

- Warm-up,
- TAPs,
- Interviews.

Each session lasted for about 30-45 minutes. To give information about what they were expected to do during TAPs, warm-up session, was conducted.

In the TAPs, the subjects were asked to verbalize what they actually did while they were reading the text. As advocated in the literature (O'Malley and Chamot, 1990), the students were informed that they could use Turkish or English; whichever they felt themselves comfortable with. Immediately afterwards, the subjects were interviewed on their use of metacognitive strategies.

Warm-up session took place in the office of the researcher at GMMA. Each session was conducted between 4p.m. and 5p.m. in the afternoon. To make the students feel relaxed; a warm atmosphere was created. There was no possibility of any kind of disturbance. A short period of informal talk led to a friendly atmosphere, which was not a hard job since subjects and the researcher have already known each other for a long period of time. The subjects and the researcher had a student-teacher relationship. After they were relaxed, as is suggested in the literature (Someran et al., 1994), the researcher reminded them that the study did not intend to evaluate how successful they were in reading and that they weren't going to be graded. Also they were told to use either Turkish or English, whichever they felt comfortable with.

Next, the researcher modeled the technique, which was intended to familiarize them with the technique. The researcher tried to use the strategies that were determined in advance (See Figure 3 for the definition).

After modeling the technique, the students were given another text to verbalize whatever went on in their minds without interpreting those thoughts. Each subject thought aloud while reading the text. Three of the subjects used Turkish and English interchangeable, the rest preferred Turkish only. O'Malley and Chamot (1990) emphasize that use of mother tongue may have a better effect when the subjects verbalize their thoughts. Each session was recorded.

Immediately after TAPs, a short informal talk was started to provide a break as McCracken (1988) stated. Questions were asked in both Turkish and English. This kind of interview has a risk that researcher may lead the subject to the desired response that s/he wants. It is, therefore, essential to avoid it.

The interview consisted of four parts (See Appendix E for the interview questions). The first part contained questions which aimed to elicit information on the subjects' own beliefs about themselves, and their task knowledge about tasks and strategies.

Second part aimed to question the subjects if they used metacognitive strategies or not. Three sub-categories helped to find answers to the questions, centering learning, arranging and planning, and evaluating learning respectively.

CHAPTER IV

DATA ANALYSIS

4.1. Overview of the Study

The aim of this study was to identify metacognitive strategies that students at GMMA need to develop in order to continue their academic studies while and after school successfully. Four methods were used to gather data: questionnaires, checklists, TAPs and interviews. The questionnaires were given to a hundred (100) randomly selected GMMA students to identify cognitive strategies they use. The checklists were administered to English language course instructors of those students in order to collect data about whether or to what extend the cognitive reading strategies that were identified in the questionnaires were taught in the classrooms. Ten (10) randomly selected students among those who received questionnaires were administered TAPs for the purpose of identifying what cognitive reading strategies the students were using during the actual reading process because this was going to verify the information obtained through questionnaires. Immediately after TAPs, interviews took place to search whether students apply metacognitive strategies that is the main point of this study.

In this chapter, data collected through questionnaires, checklists, TAPs and interviews will be presented.

4.2. Analysis of the Questionnaires

Consisting two parts, questionnaires requested students to give biographical information about them in the first part. Second part included 24 Likert-type items from which students were to choose an item among five possibilities. In this part it

was aimed to identify what students do when they encounter a text in English. In other words cognitive strategies while reading were targeted. This part had also four sub parts; namely biographical information, pre-reading strategies, while-reading strategies and post-reading strategies.

4.2.1. Biographical Information

The results of this part are shown in Table 1.

Table 1

Biographical information about GMMA students (N=100)

Question	F	P
Gender		
Male	94	94%
Female	6	6%
Age		
16-19 years	62	62%
20-24 years	38	38%
Type of high school graduated from		
State High School	14	14%
Anatolian High School	36	36%
Private High School	12	12%
Military High School	38	38%
Length of training in English		
1-5 years	56	56%
6-10 years	44	44%
More than 10 years	-	-

Note F=Frequency, P=Percentage

As it can be seen in the table, almost all the students (94%) are male due to the fact that Gülhane Military Medicine Academy is a military installation. Few female students (6%) answered the questionnaire. More than half of the students

(62%) were under 19, and the rest (38%) were 20 and above. As for the schools they graduated from those coming form Military High Schools make the highest rank (38%) that is followed by Anatolian High School graduates. Private High Schools and State High Schools make up the last group, 12% and 14% respectively. 56 students (56%) reported that they had training in English for 1-5 years, whereas the rest (44%) stated that they have had English courses for 5-10 years.

4.2.2. Pre-reading Strategies

The questionnaires in this part were related to activating background knowledge and understanding what the text is mainly about. The results of the pre-reading strategies are displayed in Table 2.

Table 2

Cognitive Strategy Use of GMMA Academy Students for the Pre-reading Phase (N=100)

		Scale									
		Always true of me		Usually true of me		Sometimes true of me		Rarely true of me		Never true of me	
No	Strategy	F	P	F	P	F	P	F	P	F	P
1	Reading the title and imagining what the text might be about	20	20%	40	40%	28	28%	9	9%	3	3%
2	Looking at illustrations/pictures to guess how they relate to the text	11	11%	42	42%	33	33%	14	14%	0	0%
3	Reading over the text quickly	34	34%	31	31%	12	12%	15	15%	8	8%
4	Reading the first line of each paragraph to understand what the text is about	8	8%	13	13%	17	17%	40	40%	22	22%
5	Thinking about previous knowledge on the topic of the text	19	19%	17	17%	4	4%	36	36%	24	24%

F= frequency, P=Percentage

As it can be seen in the table that more than half of the students declared that they use the strategies reading the title (Question 1) and looking at illustrations to relate the text (Question 2) always and usually, 60% and 53% respectively. This leads the conclusion that the majority of the students use both of the strategies relating the title and illustrations and pictures to the text content.

The same percentage can be seen at the third question, reading over the text, "always" and "usually" responses of which is 65%. Students mostly prefer to get the overall information before they read in details. However, the students neglect reading the first sentence of each paragraph (Question 4), that is an alternative way of getting the gist when students have to read long texts.

As the table shows, 36% of the students always or usually relate their background knowledge to the text (Question5). It can be concluded that students rarely (36%) or never (24%) use this strategy before reading a text like the strategy of reading the first lines of each paragraph.

4.2.3. While-reading Strategies

Data about cognitive reading strategies during the while-reading phase can be seen on Table 3.

Table 3 Cognitive Strategy Use of GMMA Academy Students for the While-reading Phase (N=100)

		Scale									
		Always true of me		Usually true of me		Sometimes true of me		Rarely true of me		Never true of me	
No	Strategy	F	P	F	P	F	P	F	P	F	P
6	Reading without looking up every unknown word in the dictionary	36	36%	34	34%	14	14%	9	9%	7	7%
7	Using a dictionary for the important words	11	11%	64	64%	11	11%	6	6%	8	8%
8	Guessing the meaning of a word from the content	20	20%	44	44%	18	18%	9	9%	9	9%
9	Guessing the meaning of a word from the grammatical category	3	3%	11	11%	19	19%	35	35%	32	32%
10	Remembering a new word by thinking of a situation in which the word might be used	14	14%	17	17%	36	36%	25	25%	8	8%
11	Skipping words	2	2%	7	7%	28	28%	40	40%	23	23%
12	Rereading a sentence	46	46%	32	32%	14	14%	5	5%	3	3%

13	Considering the other sentences in the paragraph to figure out the meaning of a sentence	24	24%	48	48%	18	18%	8	8%	2	2%
14	Reading without translating word-for-word	8	8%	8	8%	16	16%	32	32%	36	36%
15	Having a picture of the events in the text in mind	20	20%	26	26%	39	39%	10	10%	5	5%
16	Paying attention to words or phrases that show how the text is organized	16	16%	31	31%	37	37%	10	10%	6	6%
17	Taking notes on the important points of the text	11	11%	13	13%	21	21%	31	31%	24	24%
18	Making guesses about what will come next based on the information already given in the text	6	6%	32	32%	19	19%	37	37%	14	14%
19	Relating the text to background knowledge about the topic to remember important information	7	7%	10	10%	20	20%	38	38%	25	25%

F= frequency, P=Percentage

The responses given to Questions 6 and 7, which are both related to the dictionary use, indicate that more than half of the students (70%) never or rarely look up every unknown word they read (Question 6) and that a higher percentage (75%) usually and always refer to a dictionary of the important words they encounter when reading (Question 7). Therefore, most of the students do not stop to look up every unknown word, but the students usually and always use a dictionary when they think the meaning of a particular word is essential to the comprehension.

As for the contextual guessing (Question 8), 64% of the students report that they use context to guess the meaning of a word contradicting with the responses given to guessing from the grammatical category (Question 9) which is considered to be an alternative way of contextual guessing. Sixty-seven students (67%) say that rarely or never use this type of strategy. Responses given to Question 8 and 9 reveal that contextual guessing is a much more common strategy than guessing from the grammatical category. Question 13 supports this conclusion. 72 (72%) students report that they usually and always make use of the context to understand a sentence. They make use of the other sentences when they encounter a sentence that is hard to understand. Thus, the students use contextual guessing commonly both on word and sentence level.

The responses given to Question 10, which asks whether students think of a situation for the word they need to remember, seem to be inconclusive due to the fact that the number of the students who say they always or usually use this strategy is close to those who say they rarely or never use it, 31% and 33% respectively. The rest, 36 students (36%), sometimes employ this strategy.

The use of skipping strategy (Question 11) seems to be used less. Only 9 students think skipping some of the words does not prevent them from understanding the text. More than half of the students (63%) rarely or never skip some of the unknown words. Paralleling with the responses given to Question 14 which is more

than half of the students (68%), this result leads the conclusion that students usually and always read word by word. According to Cohen (1990) students fear that they will not be able to understand a text if they skip some of the words which is the result of relying on too much word for word translation which should be avoided.

Nearly all of the students (78%) indicate that they read a sentence again (Question 12) if there is a comprehension problem. Rereading a sentence is a widely used strategy since seventy-eight students stated that they always or usually reread a sentence when they do not understand it.

The responses given to the strategy of having a picture of the events in the mind (Question 15) and to the strategy of paying attention to words or phrases that shows how the text is organized (Question 16) make it difficult to reach a conclusion due to high rate of "sometimes" responses. 39% of the students state that they sometimes use of visualizing, and 37% of them pay attention to words and phrases that show how the text is organized.

Although note taking is considered to be an effective strategy (Cohen, 1990; Padron and Waxman, 1988; Knight et al., 1985), taking notes on the important parts of the text (Question 17) is employed by only 24 (24%) students always and usually.

Thirty-eight students (38%) report that they usually or always make guesses about what will come next using the information given so far while forty-one students (41%) state that they rarely or never apply it. The closeness of the results shows that the students did not understand this questionnaire item.

More than half of the students (63%) stated that they rarely or never make use of their background knowledge to remember the important information in the process of reading (Question 19). This and responses given to Question 5 (See Table 5) suggest that less than half of the students always and usually use the strategy of

relating their background knowledge to the text content during the pre- or while-reading processes. Activating background knowledge both before and while reading is considered to be a critical strategy (Carrell in Carrell,Devine and Eskey, 1988; Barnett, 1988). Thus, these results must be noted.

4.2.4. Post-reading Strategies

In the last part of the questionnaire reading strategies the students used during post-reading phase were investigated. The results of this part are presented in Table 4.

Table 4

Cognitive Strategy Use of GMMA Academy Students for the Post-reading Phase (N=100)

		Scale									
		Always true of me		Usually true of me		Sometimes true of me		Rarely true of me		Never true of me	
No	Strategy	F	P	F	P	F	P	F	P	F	P
20	Classifying the words according to their meanings	6	6%	10	10%	14	14%	33	33%	37	37%
21	Classifying the words according to their structures	5	5%	7	7%	26	26%	41	41%	21	21%
22	Making summaries	11	11%	10	10%	17	17%	32	32%	30	30%
23	Rereading the whole text when there is a comprehension problem	28	28%	36	36%	14	14%	13	13%	9	9%
24	Rereading the whole text to remember the important points	16	16%	16	16%	32	32%	30	30%	6	6%

F= frequency, P=Percentage

Data about classifying words according to their meanings (Question 20) indicate a negative tendency; 70 students out of 100 students (70%) do not classify words according to their meanings. Similar results were obtained for Question 21 that asks whether students classify the words according to their grammatical categories. More than half of the students (62%) report that they rarely or never employ this strategy to remember the words in the text. These results exhibit that classifying words according to both their meanings and grammatical categories is not a commonly used strategy by the students.

As the table shows, most of the students (70%) stated that they rarely or never classify words according to their meanings (Question 20). Since the result shows a negative tendency, it can be said that classifying words according to their meanings in order to remember them more easily is neglected. Similar results were obtained for Question 21 which asked students whether they classify words according to their grammatical categories. Sixty-six (66%) students pointed out that they rarely or never employ this strategy to remember the words in the given text. Both of these strategies are considered to be alternative ways for delayed retention of the meanings of words; however neither of them was given attention.

As for Question 22 that inquires whether students make summaries after reading, students' attention was found little. More than half of the students (62%) declared that they rarely or never summarize after they read a particular piece of writing. The answers about note taking match with those given to Question 17. Both of these strategies aim to concentrate on the main ideas and thus to distinguish important parts from less important ones. The results show that students do not commonly use these strategies.

Rereading is inquired in both Question 23 and 24 with a slight difference. Question 23 asked if the students read the text for second time when they do not understand some of its parts. The results were pleasing that 64 % of the students usually or always read the text again when they encountered comprehension

problems. Question 12 has the similar results. The majority of the students (78%) usually or always reread a sentence if they do not understand it. On the other hand, less than half of the students (32%) usually or always reread the text to remember important information (Question 24). It can be deduced that rereading is a strategy that students employ only when they face with problems in understanding.

4.3. Analysis of the Checklists

The 8 English Language instructors at GMMA filled out the checklist. The aim of the checklist was to compare what the students pointed out in their questionnaire with what the instructors stated. The instructors put a tick if they teach particular cognitive strategies in the classrooms.

The results of the checklist are shown in the table 5.

Table 5
English Language Instructors' Cognitive Strategy Checklist (N=8)

Item	Strategy	F	P
	Pre-reading strategies		
1	Reading the title and imagining what the text might be about	8	100%
2	Looking at illustrations/pictures to guess how they relate to the text	7	87.5%
3	Reading over the text quickly	6	75%
4	Reading the first line of each paragraph to understand what the text is about	2	25%
5	Thinking about previous knowledge on the topic of the text	7	87.5%
	While-reading strategies		
6	Reading without looking up every unknown word in the dictionary	8	100%
7	Using a dictionary for the important words	6	75%
8	Guessing the meaning of a word from the content	8	100%
9	Guessing the meaning of a word from the grammatical category	6	75%
10	Remembering a new word by thinking of a situation in which the word might be used	5	62.5%
11	Skipping words	4	50%

12	Rereading a sentence	7	87.5%
13	Considering the other sentences in the paragraph to figure out the meaning of a sentence	8	100%
14	Reading without translating word-for-word	8	100%
15	Having a picture of the events in the text in mind	1	12.5%
16	Paying attention to words or phrases that show how the text is organized	6	75%
17	Taking notes on the important points of the text	3	37.5%
18	Making guesses about what will come next based on the information already given in the text	6	75%
19	Relating the text to background knowledge about the topic to remember important information	2	25%
	Post-reading strategies		
20	Classifying the words according to their meanings	5	62.5%
21	Classifying the words according to their structures	6	75%
22	Making summaries	1	12.5%
23	Rereading the whole text when there is a comprehension problem	7	87.5%
24	Rereading the whole text to remember the important points	6	75%

F= Frequency, P=Percentage

As indicated in the table, all of the teachers (100%) said that they teach how to use the title to guess the text content (Item 1). However 87.5 % of the teachers indicated that students receive instruction to use the pictures/illustrations to guess the text content (Item2). Although both of the items serve for the same purpose, using the title to guess the content of the text is taught more commonly than using the pictures/illustrations. Moreover, response for making guess about what will come next by using the information already given (Item 18) is another way of predicting about the text content and it got 75% of the responses.

The responses given for Item 3 indicate that more than half of the teachers (75%) teach their students skim the text to get the gist. The rate shows a negative tendency for Item 4 with a yes-response rate of 25%. Only two teachers (25%) state that they train their students to read each paragraph to understand what the text is

about. Seven teachers (87.5%) emphasize to relate background knowledge to the topic (Item 5) in their classrooms.

All of the teachers (100%) encourage their students not to use a dictionary to look up every unknown word they encounter when reading (Item 6). However, the responses given to Item 7, which asked if they teach to use a dictionary for the important words they do not know, fall to 75 %. Those given to Item 14 about word-for-word translation also support these results. All of the teachers (100%) said that they warn their students not to make word-for-word translation.

Items 8 and 9 both asked whether they teach to guess meanings of words and all of the teachers (100%) declared that they teach how to guess the meaning from the text whereas only six of them (75%) instruct guessing the meaning from the grammatical categories of those words. Also, understanding the meaning of a sentence from the other sentences (Item13) is thought an important strategy by all of the teachers (100%). In addition to these results, paying attention to words/phrases that show the text is organized is a commonly taught strategy by 75% of the teachers.

More than half of the teachers (62.5%) stated that students receive training to think of a situation to remember a word (Item 10). This result contradicts with the response given to Item 15 asking about encouraging students to use visualization for the events in the text. The rate was 12.5%.

While all the teachers dissuade the students from looking up each word in the text only half of them (50%) teach to skip words for effective reading (Item 11).

The responses given to item 12 report that reading a sentence again to prevent the comprehension failure is taught by most of the teachers (87.5%). Other statements about rereading (Item 23 and 24) have the similar positive tendency with the percentages of 87.5% and 75% respectively.

As it can be seen in the table, the percentages of teachers who stated that they teach students how to make notes (Item 17), and summaries (Item 22) on the important points of the text revealed that only few teachers teach these strategies; 37.5% and 12.5% respectively. These results lead to conclusion that there is lack of emphasis on note taking and summarizing.

The answers to Item 19 reveal that using background knowledge to remember the important points in the text is not practiced in most of the classrooms. Only 2 teachers (25%) stated that they emphasize this strategy. This result has a contradiction with the result given to Item 5.The survey put forward that activating background knowledge before reading is emphasized whereas it is neglected while reading the text.

Classifying words according to their meanings (Item 20) and classifying words according to their grammatical categories (Item 21) to remember them are two strategies taught by more than half of the teachers, 62.5% and 75% respectively.

The analysis of the checklists showed that what the students reported is parallel to what the teachers teach. The comparison of the percentages of teachers' and students' results can be seen on Table 6.

Table 6

Comparison of Responses of the Questionnaires and Checklists

		Students		Instructors	
Item	Strategy	F	P	F	P
Pre-reading strategies					
1	Reading the title and imagining what the text might be about	60	60%	8	100%
2	Looking at illustrations/pictures to guess how they relate to the text	53	53%	7	87.5%
3	Reading over the text quickly	65	65%	6	75%
4	Reading the first line of each paragraph to understand what the	21	21%	2	25%

	text is about				
5	Thinking about previous knowledge on the topic of the text	36	36%	7	87.5%
	While-reading strategies				
6	Reading without looking up every unknown word in the dictionary	70	70%	8	100%
7	Using a dictionary for the important words	75	75%	6	75%
8	Guessing the meaning of a word from the content	64	64%	8	100%
9	Guessing the meaning of a word from the grammatical category	14	14%	6	75%
10	Remembering a new word by thinking of a situation in which the word might be used	31	31%	5	62.5%
11	Skipping words	9	9%	4	50%
12	Rereading a sentence	78	78%	7	87.5%
13	Considering the other sentences in the paragraph to figure out the meaning of a sentence	70	70%	8	100%
14	Reading without translating word-for-word	16	16%	8	100%
15	Having a picture of the events in the text in mind	46	46%	1	12.5%
16	Paying attention to words or phrases that show how the text is organized	47	47%	6	75%
17	Taking notes on the important points of the text	24	24%	3	37.5%
18	Making guesses about what will come next based on the information already given in the text	38	38%	6	75%
19	Relating the text to background knowledge about the topic to remember important information	17	17%	2	25%
20	Classifying the words according to their meanings	16	16%	5	62.5%
21	Classifying the words according to their structures	12	12%	6	75%
22	Making summaries	21	21%	1	12.5%
23	Rereading the whole text when there is a comprehension problem	64	64%	7	87.5%
24	Rereading the whole text to remember the important points	32	32%	6	75%

As it can be seen on the table, there is not much difference between what the students have report and what the teachers have ticked. However, some items have great differences. Using background knowledge on the topic of the text, guessing the meaning from grammatical category, skipping words, reading without translating

word-for-word, classifying words according to their structures are strategies that are highly taught by teachers but used little by students. It is also important to notice that students have the pictures of the events of the text in their minds whereas only one teacher emphasizes it.

4.4. Analysis of Think Aloud Protocols

Reading comprehension strategies used by the subjects were identified from the think aloud data by the help of predetermined categories. In other words, strategies were determined according to a coding scheme (See Appendix F).

The steps taken in this procedure were as follows (O'Malley and Chamot, 1990):

- Developing a coding scheme,
- Transcribing the think aloud data for each subject,
- Identifying the strategies each subject used,
- Coding the strategies according to coding scheme,
- Identifying the strategies that match or do not match the predetermined categories,
- Computing the frequencies of the strategies,
- Developing the strategy profiles

In order to evaluate the Think Aloud Data, a coding scheme was first developed (see Appendix F). Then, taped information was transcribed completely. Later, the Turkish transcriptions were translated into English. To be sure about the reliability, a colleague was asked to translate the transcribed data from one of the protocols. No discrepancies causing loss meaning were found.

Afterwards, the TAP verbalizations of strategies used by each student were coded according to previously developed coding scheme. As the TAPs were

analyzed, researcher observed seven more strategies that were not in the list of predetermined strategies.

In table 7 a list of strategies after the analysis of TAPs is presented. The definition for each strategy and one example taken from the student protocols are also presented for each strategy type. The bold characters in the table as they read indicate students' reactions to the text and the comments of the researcher are also given in parentheses.

Table 7
Cognitive strategy noted during TAPs and their definitions

Strategy	Definition and Samples
Using the title to anticipate text content	Reading the title and trying to guess what it might be about. "Why Study Grammar" **I think it talks about how important the grammar is.**
Using the illustrations and pictures to anticipate the text content.	By the help of the pictures and illustrations guessing text content. (Student looks at the picture) **I think it will talk about grammar because he carries a grammar book.**
Reading over the text to get the gist.	Reading the text quickly in order to understand what the text is about without paying attention to details. (Students look at the text) **Let me check the text quickly.**
Reading the first line of each paragraph.	Reading the first line of each paragraph is an alternative way to find the gist of the text.

	(Only one student employed this strategy. The result is parallel to the result of Question 4. He looked at the title and read the first sentences of each paragraph.) **I think it talks about the significance of English.**
Activating background knowledge.	Considering the background knowledge on the topic of the text. "Why Study Grammar" **If we do not continue studying grammar we forget it. Therefore, it is an important lesson we should study all the time.**
Not consulting the dictionary for every unknown word.	Reading the text without stopping for every unfamiliar word. "Grammar is no different from any other domain of knowledge in this respect". **I do not know what domain means.** (Student hesitates to look up the dictionary) **I think grammar is like other disciplines.** (He changed his mind and put the dictionary back.)
Using a dictionary	Using a dictionary for the words crucial for understanding. "We encounter ambiguity, imprecision, and unintelligible speech or writing" **What do these words mean? I did not understand this sentence completely.** (Students looked up the dictionary for the words he did not know.) **Hmm... I understand now.**
Guessing form the context.	Using the other words or sentences to figure out what a particular sentence means. "After studying grammar, we should be more alert to the strength, flexibility and variety of our language... " **In this sentence alert probably means be watching. We must be alert for our countries enemies because we are officers.**

Guessing from the grammatical category	Using the previously learned language clues to figure out the meaning of a sentence. And grammar is the fundamental organizing principle of language. **Fundamental cannot be a verb it must be a noun or an adjective. Hmm it precedes a noun so it may be an adjective. It may mean important.** (This is the only evidence showing the use of this strategy by the learner.)
Skipping words.	Not paying attention to unknown words unless they have an important role for comprehension. This is especially when children are learning to emulate the standards used by educated adult members of their community. **I do not know what emulates mean but I think in this sentence trying say that it especially happens when babies are trying to learn to talk to.**
Rereading a sentence	Reading a sentence for the possible comprehension failures or for understanding it better. "But more than mountains, language is involved with almost everything we do as human beings". **Aha what did it mean?** (Student reads the sentence again.) **I think it tries to emphasize how much importance language has in our daily lives.**
Considering the context to understand the meaning of a sentence.	Using the information given in other sentences if a sentence is not understood. "We encounter ambiguity, imprecision, and unintelligible speech or writing." **I do not all of these words, but the following sentence says that they are problems in speech. Yes, we sometimes do not understand each**

	other. Someone says something, other understands it in a different way.
Translation.	Using the mother tongue to remedy a comprehension failure or to produce the target language. "Other languages have clauses, tenses, and adjectives too." **Diğer dillerde de cümleler, zamanlar ve sıfatlar var.**
Visualizing the events	Having a picture of the events in the mind for a better understanding. "Because it is there." **Hah hah, it is really funny. Think that there is a grammar book sitting next to us and saying hello I am here.**
Recognizing organization	Paying attention to words or expressions that show how the text is organized. "Nonetheless, our language can let us down." **Yeah now, in this paragraph he will talk about an opposite side of the point.**
Assimilating the text	To make guesses about what will come next in the text by thinking about the information given so far. (Student reads the first paragraph and the first sentence of the second paragraph.) **Alright it will talk about grammar in this passage.**
Assimilating the text with the background knowledge.	Relating background knowledge to the text to remember the text for a better understanding.

	"Our awareness must improve, but turning that awareness into better practice ..." **Practice is an important factor that affects language usage.**
Summarizing	Making a mental, oral or written summary of main ideas of the text. (Student reads the whole text.) **It is on the whole about grammar and language. It emphasizes the importance of grammar.**
Rereading the text.	Reading the entire text again to remedy any comprehension failures. (Student reads the entire text.) **OK, it is about grammar and language but I did not understand it thoroughly. I will read it again.**

Among the 24 strategy types that were determined before the data collection process, 19 of them were observed during TAPs. It was observed that ten randomly chosen subjects classified words according to neither their meanings nor grammatical categories. None of them read the text again to remember the important information. While reading the text they did not take notes, and none of them found it necessary to remember words by thinking of a situation.

After the strategies were coded, the frequencies were computed. This helped the researcher to find out whether the responses given to questionnaires match with the strategies students used in the TAP. The frequencies and percentages for each student are displayed in Table 8.

Table 8

Cognitive Strategy Use during the TAPs (N=10)

Strategy	F	P
Using the title to anticipate the text content	7	70%
Using the illustrations/pictures to anticipate the text content	5	50%
Reading over the text to get the main idea	4	40%
Reading the firs line of each paragraph	1	10%
Activating background knowledge	2	20%
Not using the dictionary for each unknown word	6	60%
Using the dictionary for the important words	9	90%
Guessing form the content	5	50%
Guessing from the grammatical category	2	20%
Skipping words	3	30%
Rereading a sentence	7	70%
Using other information to understand a sentence	7	70%
Translating	7	70%
Visualizing	4	40%
Recognizing organization	3	30%
Assimilating the text with the passage events	6	60%
Assimilating the text with background information	6	60%
Summarizing	2	20%
Rereading the text	7	70%

Note F=Frequency, P=Percentage

Coding scheme also helped develop strategy profile charts for each student. The charts reveal the reading comprehension strategies that the subjects use while reading a text (See Appendix F).

Immediately after TAPs, students were interviewed. Subjects` metacognitive knowledge and use of metacognitive strategies were analyzed in the light of six categories. Responses to the interview questions given by students were divided into subcategories in the light of categories of metacognitive knowledge and metacognitive strategies (See Figures 2 and 3).

The table below presents the results of the data on metacognitive knowledge gathered by the help of interviews. Students' responses are written with bold characters, small letters indicate the subcategories. Because it is the first category of metacognitive knowledge, self-knowledge, that is to say, the subjects' conceptions about themselves are indicated in Table 9.

Table 9

Self-knowledge

Interview focus:

- Progress in reading English texts
- Self-conception of oneself as a reader
- Self-conception of oneself as a better reader

SUBJECTS	SUBCATEGORIES AND STATTEMENTS GIVEN BY STUDENTS
1	- progress in reading English texts - **Absolutely yes.** - Curious reader - **I like to read a lot. I am curious about anything.** - Proficient reader who can guess well and who is good at grammar - **According to me you are good reader if you can guess the meaning of a word from the other words or sentences. And of course you must know the grammar well to understand what is written.**
2	- unconscious progress reading English texts - **When I entered the Academy I know little about English but now I can read long texts and understand them. I do not know how this happened.** - reader eager to reading and understanding - **I like to read a lot and anytime. I feel good when I understand a text written in English.** - top-down reader - **I do not like read sentences, for example when doing exercises in our classes. I like to read paragraphs; I understand all the sentences when they are given in a paragraph.**
3	- no progress in reading English texts

	- selective reader - **If I am bored with what I am reading, I do not understand it, I do not try to understand it.** - Careless reader - **When I read, I look up word in the dictionary, but I do not give importance to its meaning and I forget it. So I have o look it up again if I run across the same word again.**
4	- progress in reading English texts - **Yes sure, I improved in understanding the written texts.** - proficient reader - **In order to understand well s/he has to know about the topic and also be proficient in reading.** - not satisfying reader - **I like to read about anything to improve my reading ability, I like to read magazines, newspapers, books, brochures.**
5	- progress in reading long texts - **When I was in military high school I could read paragraphs but it was hard for me to read and understand essays. Now I can read them too. I need to because I have assignments to do in my medicine classes.** - selective and conscious reader - **When reading you must be selective, you should pay attention to what you read. Because if you are bored of reading something you may get bored of reading too. It is dangerous.** - bold and conscientious reader who can guess well. - **When I am reading, I am not afraid of unknown vocabulary and grammar. I force myself to find out the meaning or to figure out the grammatical structure.**
6	- progress in reading and interpreting texts - **Yes I have improved in reading texts. In the first years of my English education I was given short stories. They were staged books. But I now it is completely different. In my medicine classes, I have assignments that I have to search medicine literature.** - curious reader who likes reading - **I like reading a lot, I am curious about computers and programming and also in science. Most of the new information is in English. So I like reading English texts.** - reader who has technical vocabulary - **I know most of the vocabulary about computers and programming; therefore, I like**

	reading texts on these subjects.
7	- progress in reading English texts - **Yes, I have** - critical reader - **When I am reading a text in English on one hand I read and try to understand it on the other hand I criticize the ideas or events in the text.** - knowledgeable reader who likes reading - **Reading makes us know a lot, it makes us knowledgeable. But first, if you want to be knowledgeable you should like reading. If you like it, it likes you.**
8	- no progress in reading English texts - not a good reader who does not like to read - **I am not a good reader. I have difficulty in understanding complex sentences and long paragraphs. And I do not like to read both in English and Turkish.**
9	- progress in reading English texts - **Yes.** - investigative reader who can guess well - **Sometimes there are strange words that I do not know. I try to guess their meaning out of the content. But If I can not figure them out I look up them in the dictionary.** - continuous reader - **I always have a book with me. I try to have English ones. I read them everywhere, at the cafeteria, library and also on buses.**
10	- progress toward top-down reading proficiency - **Yes I improved in comprehending English texts. Now I can get the gist of a paragraph even though there are unknown words for me.** - careful and selective reader - **When I have something to read either in Turkish or in English I first look at the title and go through it. If I find it interesting I may read it.** - reader who reads a lot - **We need to read a lot; it is something like riding a bicycle, the more you ride the better you ride.**

As the table shows, all the students were able describe themselves as readers. Being a reader, each student had his/her own reader profile and they reflected those profiles to this research. Talking about themselves as readers also indicates that they have self-knowledge, one of the sub-categories of metacognitive knowledge.

In the following table (Table 10), second sub-category of metacognitive knowledge, namely task-knowledge, is analyzed as a result of the analysis of the interview data in the light of interview questions.

Table 10

Task-knowledge

Factors that makes reading a text difficult to understand

SUBJECTS	SUBCATEGORIES
1	- Vocabulary - lack of grammar - lack of background knowledge
2	- vocabulary - lack of background knowledge - figures of speech
3	- vocabulary - lack of interest - writer's language - cultural differences
4	- long complicated sentences - figures of speech - long, complicated sentences
5	- vocabulary - literary language - lack of grammar - idiomatic language

6	- lack of background knowledge - vocabulary - punctuation - cultural differences
7	- writer's language - vocabulary - inability to guess
8	- insufficient reading - lack of background knowledge - complicated sentences - vocabulary - inability to guess
9	- lack of interest - figures of speech - vocabulary
10	- lack of background knowledge - lack of interest in the topic - literary words - inability to guess

Students are questioned and students' ideas about the difficulty of the task were analyzed in order to find out data about students' task knowledge. The students reported similar responses to the questions. As seen in the table students complained about the lack of vocabulary, complicated sentences that were linguistic features of the text. It was also noteworthy that students declared that their lack of background was also a problem in comprehension. Only a few students saw cultural differences and idiomatic language as a problem.

Table 11 below presents the data on strategy knowledge, the last category of metacognitive knowledge. Similarly the table includes the subcategories and related statements of the students.

Table 11

Task-knowledge

Interview focus:

- Use of any special techniques in reading English Texts
- Satisfaction with the techniques
- The techniques that were used while reading, *Why Study Grammar.*

SUBJECTS	SUBCATEGORIES AND STATEMENTS
1	- rereading, reading for the main idea, using dictionary for the important words, guessing word from the text. - satisfaction with available strategies. - **There were some words that I do not understand. I tried to guess their meaning and also there was a verb I checked the meaning. I read the text again**
2	- Reading for the main idea, rereading, guessing the meaning from the context, taking notes, and using background knowledge. - Satisfaction with available strategies. - **I did not use the dictionary. I did not translate too. I read the whole text again to understand because there were some that I did not understand.**
3	- imagining, rereading, using the dictionary. - dissatisfaction with available strategies. - **I used the dictionary for the unknown words, I read the text again and I translated some parts.**
4	- rereading, guessing from the meaning, using the dictionary, using the title, scanning. - satisfaction with available strategies. - **First I read the title and tried to guess what the text about. Then, I scanned the text. I checked whether my prediction was right. And I began to read the text. There were some sentences that I do not understand. I reread them. Also I used the dictionary for those words I did not know. Sometimes I translated some parts for better comprehension. In the end I read the text again to strengthen my comprehension.**
5	- using the title, scanning for the main idea, using the dictionary, translating, summarizing. - satisfaction with available strategies. - **I read the title and scan the text. I found out that it was about grammar. Then I**

	began to read the text in detail. I used the dictionary for unknown words. I translated some sentences, and read some of them again. In the end I tried to make a summary of what had been sad.
6	- rereading, translating. - dissatisfaction with the available strategies. - **I used the title to guess about the text. I translated some parts. I read some sentences again.**
7	- rereading, translating, using dictionary. - satisfaction with available strategies. - **I used the title to estimate what the text about, so I did not skim through it. Sometimes I looked up the dictionary.**
8	- rereading, guessing the meaning, skimming. - satisfaction with available strategies. - **I read the title and began to read the text. It was about grammar, I used the dictionary.**
9	- using background knowledge, using dictionary, rereading. - satisfaction with available strategies. - **I read the text. It was about grammar. I used information I know about grammar while I was reading. I used the dictionary sometimes. When I finished I read the text again.**
10	- rereading, using the dictionary, guessing the meaning, skimming. - satisfaction with available strategies. - **I tried to understand every sentence but I had to use the dictionary once or twice. I tied to guess the other words' meanings out of the text.**

The table shows that all the subjects reported a number of strategies they use while they encounter a text in English. They talked about the strategies they employed while they were reading the text, *Why Study Grammar?*. The important result form this table is that those strategies they used are a lot more than those they reported. On the other hand, almost all of them stated that they were satisfied with the strategies they used. This may indicate lack of conscious knowledge of the strategies.

The next part of the interview questions was about the employment of metacognitive strategies by the students. Oxford (1990, p.177) divides metacognitive strategies into three (See Figure 3). The following table (Table 12) gives information about the first part of the division, namely Centering Learning.

Table 12

Centering Your Learning

Interview focus:

- Connections about the text and background knowledge (TAPs used)
- Paying attention

SUBJECTS	SUBCATEGORIES AND STATEMENTS
1	- Linking. - **Other languages ... yes, all the languages have them.** - paying attention. - **It was a boring text for me. I hate grammar. It is hard for me.**
2	- linking. - **If we do not continue studying grammar we forget it. So, it is such a lesson that it requires studying all the time.** - paying attention. - **If the subject is interesting I pay more attention to text.**
3	- linking. - (Students did not link his background knowledge when reading.) - paying attention. - **The last part was interesting. The author gave a "car" example.**
4	- linking. - (Students did not link his background knowledge when reading.) - paying attention. - **I already know the importance of grammar. It was an ordinary text for me.**
5	- linking, - **Rules have to exist. People can not do whatever they like.** - paying attention, - **Even after.... This is really an interesting example.**

6	- linking. - (No incidence) - paying attention. - **It was interesting that writer talks about mountains and language together.**
7	- linking. - (No incidence) - paying attention. - **I did not know that language is the most creative ability we have.**
8	- linking. - **We would not carry out our deeds if there were no language.** - paying attention. - **I do not like grammar. But this text was interesting. I thought it was just a tool.**
9	- linking, - **grammar is the basis of a language. If there were no grammar nobody could communicate.** - Paying attention - **There were many unknown words for me. I learned one or two of them.**
10	- linking, - **There is a difference between written language and spoken language. Grammar becomes much more important in written language. If we want to read a written text we have to know grammar rules.** - paying attention. - **The word "emulate" was a funny word. It sounded like an animal when I pronounced it.**

As seen in the table, most of the students use their background knowledge when they face a text. The text attracted students in different ways; some of them paid attention to linguistic items, whereas others noticed interesting examples and different usages of words. All this information shows that students center their learning, in other words they find a reason for reading.

The second sub-category of metacognitive strategies is arranging and planning as Oxford (1990) states. Table 13 displays the data gathered from interview questions in part C (See Appendix E)

Table 13

Arranging and Planning

Interview focus:

- Use of strategies to understand the text
- Physical environment when reading
- Goals and objectives
- Purpose for reading
- Planning for reading
- Seeking opportunities for reading

SUBJECTS	SUBCATEGORIES AND STATEMENTS
1	- strategies. **There were some words that I do not understand. I tried to guess their meaning and also there was a verb I checked the meaning. I read the text again.** - environment. **Yeah, everything was OK.** - goals. **Because I want to improve my reading in English.** - scanning, - planning. **Before I begin reading a text I read the title and try to remember what do I know about it.** - opportunities. **I have no time to spare for reading in English.**
2	- **I did not use the dictionary. I did not translate too. I read the whole text again to understand because there were some that I did not understand.** - environment. **You were quite encouraging.** - goals. **Reading is part of English lesson. I have to read better to pass the class** - skimming and scanning. - planning. **No I do not do any special thing. I just go through it.** - opportunities. **I just read in English just in the class.**
3	- **I used the dictionary for the unknown words, I read the text again and I translated some parts.** - environment. **Noise is very disturbing when reading. If there is noise I can not read.** - goals. **I like reading. I feel good when I read in English.** - skimming and scanning. - planning. **I always have my pocket dictionary with me.** - opportunities. **I try to read English newspapers on the net.**
4	- **First I read the title and tried to guess what the text about. Then, I scanned the text. I checked whether my prediction was right. And I began to read the text.**

	There were some sentences that I do not understand. I reread them. Also I used the dictionary for those words I did not know. Sometimes I translated some parts for better comprehension. In the end I read the text again to strengthen my comprehension. - environment. **I understand better if I am reading on my bed and lying on it.** - goals. **I will be a doctor so I have to follow the literature. And that is all English.** - skimming and scanning. - planning. **I try focus on my reading. So I say everybody not to disturb me. I have my dictionary and notebook with me.** - opportunities. **I have a subscription to Newsweek Magazine.**
5	- **I read the title and scan the text. I found out that it was about grammar. Then I began to read the text in detail. I used the dictionary for unknown words. I translated some sentences, and read some of them again. In the end I tried to make a summary of what had been sad.** - environment. **A comfortable seat would be enough for me.** - goals. **I read for pleasure.** - skimming and scanning. - planning. **No I just read the text.** - opportunities. **I have foreign mail accounts. I search through net. They are all English.**
6	- **I used the title to guess about the text. I translated some parts. I read some sentences again.** - environment. **I can read in any place.** - goals. **I like computers. I like to learn about them.** - skimming and scanning. - planning. **I do not make any particular preparation for reading** - opportunities. **I just read in the class.**
7	- **I used the title to estimate what the text about, so I did not skim through it. Sometimes I looked up the dictionary.** - environment. **It must be silent.** - goals. **I read for fun, and learn interesting things.** - scanning. - planning. **I may have my dictionary with me.** - opportunities. **Sometimes I read Turkish Daily News. It is found in our cafeteria.**
8	- **I read the title and began to read the text. It was about grammar, I used the dictionary.** - environment. **I do not understand when it is noisy.**

	- goals. **I want to pass my class.** - scanning. - planning. **I read it at once.** - opportunities. **I read novels.**
9	- **I read the text. It was about grammar. I used information I know about grammar while I was reading. I used the dictionary sometimes. When I finished I read the text again.** - environment. **I can read anywhere; on bus, on the sofa, at the cafeteria.** - goals. **I kike to be a proficient reader.** - scanning. - planning. **I read them without any preparation.** - opportunities. **I read newspapers and novels.**
10	- **I tried to understand every sentence but I had to use the dictionary once or twice. I tied to guess the other words' meanings out of the text.** - environment. **I must sit at a table while I am reading.** - goals. **I will be a doctor, so must be an efficient learner.** - scanning. - planning. **I try to activate my schemata on the subject that I read** - opportunities. **I read sports illustrated and I search the net.**

As seen on the table students reported some of the strategies they used while reading the text given to them. But as said before they are totally aware of the strategies they employ. All of them could tell the situation that they read and comprehend best, whereas only half of them had specific goals in their minds for reading. Almost all the students create opportunities to read. However, only a few often reported that they approach a written text with special care and prepare before reading it.

The last sub-category of metacognitive strategies, namely evaluating learning, includes self-monitoring and self-evaluating. Information gathered from students about evaluating learning is shown in the following table.

Table 14

Evaluating Learning.

Interview focus:

- Self-monitoring
- Self-evaluating

SUBJECTS	SUBCATEGORIES AND STATEMENTS
1	- (No self-monitoring) - **Absolutely yes.**
2	- (Student reads the title and skims through the text.) **Yes, it speaks about grammar.** - **When I entered the Academy I know little about English but now I can read long texts and understand them. I do not know how this happened.**
3	- (Student reads the first line of each paragraph and then the text) **I was right it is about grammar.** - no progress in reading English texts
4	- (Student reads the title and skims through the text.) **I am right. It is about the importance of grammar.** - **Yes sure, I improved in understanding the written texts.**
5	- (Student reads the title and skims through the text.) **Yeah, it is about grammar and how important it is in using out languages.** - **When I was in military high school I could read paragraphs but it was hard for me to read and understand essays. Now I can read them too. I need to because I have assignments to do in my medicine classes.**
6	- (Student reads the title and skims through the text.) **Hmm, the subject is grammar.** - **Yes I have improved in reading texts. In the first years of my English education I was given short stories. They were staged books. But I now it is completely different. In my medicine classes, I have assignments that I have to search medicine literature.**
7	- (No self-monitoring) - **Yes, I have.**
8	- (No self-monitoring) - (No progress in reading English texts)
9	- (No self-monitoring) - **Yes.**

10	- (No self-monitoring) - **Yes I improved in comprehending English texts. Now I can get the gist of a paragraph even though there are unknown words for me**

By the help of analysis of TAPs, it was deducted that half of the students did not monitor themselves when reading the text. Nevertheless, only one of them reported that he could not evaluate his progress in reading comprehension.

As it is apparent from the tables printed on the previous pages, most of the strategies such as centering learning, arranging and planning an evaluating learning were observed during the interviews.

In conclusion, it was found that all of the students used reading comprehension strategies by the help of TAPs. Similarly, all of them showed knowledge about metacognitive knowledge and metacognitive strategies in varying amounts. But this knowledge was mostly unconscious, which means they were not aware of it.

CHAPTER V

CONCLUSION AND SUGGESTIONS

This descriptive study aimed to identify metacognitive reading strategies that students studying at Gülhane Military Medicine Academy need to develop in order to carry out their academic studies successfully. Four set of tools were used to reach this aim, namely questionnaires, checklists, think aloud protocols and interviews.

Questionnaires were given to randomly selected students for the purpose of finding out their current strategy use. On the same day checklists were conducted to the instructors to determine whether the strategies used by the students parallel with the training they get at the institute. Questionnaires consisted of 24 Likert-type items. It was aimed to collect self reported data on the cognitive strategy use in reading. By the help of checklists, consistency between students' self reported cognitive strategy use and training they get was searched. Ten randomly chosen students among those who got the questionnaires did the TAPs. The administration of the TAPs helped the researcher identify the cognitive strategies used during the actual reading process. The strategies identified were coded according to a coding scheme. The frequencies of strategies and the results of both questionnaires and checklists were computed.

Interviews were done to explore students' metacognitive strategy knowledge. Predetermined categories of metacognitive strategies were analyzed in the transcribed text and coded in the light of the interview questionnaires. Subcategories of metacognitive strategies, namely centering your learning, arranging and planning your learning, and evaluating your learning were analyzed.

In the data analysis, both qualitative and quantitative techniques were used. Questionnaires and checklists were analyzed quantitatively. On the other hand, TAPs and interviews were analyzed qualitatively. Frequencies and percentages were

calculated for questionnaires and checklists. After developing a coding scheme, verbal statements during TAPs were coded. Immediately after TAPs, interview questions were asked and verbal data were transcribed and divided into segments according to predetermined metacognitive strategies and its subcategories.

After processing all the data gathered from students and instructors, a comparison has been made between what the students report and what they did; questionnaires and checklists have been compared. The comparison revealed both similar and contradictory results. When we check the similar results with a slight difference, it can be seen that more than half of the students employ the strategies of reading the title, looking at illustrations, reading without looking up every word's meaning in the dictionary, using the dictionary for the important words, guessing the meaning from the content, rereading a sentence, using other sentences to find the meaning of a sentence, making guesses about what will come next, relating background knowledge and rereading. No significant difference was met between the results of the questionnaires and the TAPs.

On the other hand, students do not use some strategies, as visualizing the events in the text, taking notes for the important parts, which are the strategies making use of during while-reading phase. Furthermore, students classified words according to neither their meanings nor their grammatical categories. Also rereading the whole text to remember was not observed during TAPs. Not using of these strategies leads to the fact that students need to learn and employ post-reading strategies.

One interesting finding is that students rely too much on translation while reading. During TAPs, most of the students translated the sentences for comprehension. Only 20% of the subjects read without translating word-for-word. This finding should be noted since large amount of translation is believed to have harmful effects on fluent and proficient reading.

When the results of the questionnaires and checklist were compared they showed consistencies and inconsistencies. According to the results of the checklist, instructors teach more than half of the strategies (20 among 24). However, students' responses to the questionnaires and TAPs revealed inconsistencies for some strategies. The strategies that teachers reported they teach but students did not employ during TAPs and reported that they did not use are as follows:

- using background knowledge on the topic of the text,
- guessing the meaning from grammatical category,
- skipping words,
- reading without translating word-for-word,
- classifying words according to their structures

It is also important to notice that students have the pictures of the events of the text in their minds whereas only one teacher emphasizes it.

There may be several reasons for this contradiction. One reason can be the lack of practice experience in extensive reading since classroom practice is not the only source of practice to improve reading. Whether strategy training results in better use of strategies can be another reason for this contradiction. Teachers' professional training in teaching how to use strategies can also be an important factor.

The findings of the study obtained from the analysis of the interview data displayed that the subjects make use metacognitive strategies for reading comprehension in various amounts. They were able to talk about their strategies in general and also they can tell what kind of a reader they are and what kind of text difficulties they face such as vocabulary, complicated sentences, and lack of background knowledge. A few of the students reported some strategies that show they had some plans for reading tasks in advance.

When the amount of metacognitive knowledge is compared with the use of metacognitive strategies, it can be said that the metacognitive knowledge of the subjects is better than their using of the strategies. They were able to identify themselves as readers, and when asked they could say that they made progress in their reading comprehension skills. Text difficulties for them to understand a reading text were also observed during interviews. Moreover, they reported some of the strategies they use when they encounter a passage.

As for the strategies, centering your learning was achieved in interviews. Most of the students reported that they make use of their background knowledge to comprehend a text. There were still some who did not employ this strategy. All of the students paid attention to some linguistic features or interesting information in the text. On the other hand, although background knowledge is essential in the cognitive processing of texts, the subjects were found not to make effective use of their background knowledge.

For the arranging and planning your learning, the students declared that they make use of some strategies and they know in what kind of an atmosphere they can read better. The subjects stated some goals for reading most of which were to accomplish academic assignments. This result strengthens the idea that reading is important in learning a foreign language and it can give an idea about which place reading should be in teaching a foreign language. It was observed that the students do not have a plan for reading. They only trust their dictionaries when reading. Only a few students create possibilities to improve their reading comprehension ability that leads to the conclusion that most of them do not read out of class. However, it is important to make possibilities to read extensively for better comprehension.

Findings of the study revealed that the half of the subjects almost always have ongoing executive control over their mental processes. That is to say, they monitor to evaluate whether or not comprehension is occurring. All of the students were able to evaluate themselves by considering their comprehension or progress in reading.

The results of the analysis of the interviews indicate that the students have metacognitive knowledge and metacognitive strategy use, however, without conscious awareness and ability to regulate them. Putting it differently, they lack specific knowledge to employ strategies, although they could talk about how they read texts, why they do not understand, what kind of strategies they employ.

The conclusion that the students possess unconscious knowledge about metacognition and metacognitive strategies is supported by Metcalfe and Shimamura (1994), who argue that human beings can learn without conscious awareness. Thus, it can be concluded that students use strategies to get the meaning of the text. They can talk about these strategies. However, this does not mean they have metacognitive knowledge and use metacognitive strategies. In other words, they do not know what kind of functions strategies have or how strategies help readers to comprehend a text. They do not have specific information about strategies and/or regulate them consciously. In other words, their actions are not planned to select the appropriate strategy when needed.

To have an overview of the findings of the study the results are summarized in the light of research questions. The first question was what kind of cognitive reading strategies students at Gülhane Military Medicine Academy use and whether students' use of cognitive strategies are parallel with the instruction they receive. Students' strategies and instruction they get were investigated through TAPs, questionnaires and checklists; the summaries of the results are as follows:

- Students at Gülhane Military Medicine Academy, as represented by a hundred students during application of questionnaires and ten students during TAPs, use several cognitive reading strategies while reading texts.
- There is not much difference in the instruction they get and the strategies they use to comprehend a text. Students for better understanding do not use a few strategies taught.

The second research question had the aim of investigating students' metacognitive knowledge and use of metacognitive strategies. The findings are summarized as follows.

- Students have metacognitive knowledge in varying amounts due to the fact that they are able to talk about their strategies, what kind of readers they are and what makes a text difficult to understand.
- Students employ varying amount of metacognitive strategies in the sense that they center their reading, plan and arrange their reading and monitor their reading to evaluate.
- Students' knowledge about metacognition overcomes their use of metacognitive strategies.
- Students lack conscious knowledge about metacognition and use of metacognitive strategies; that is they do not have specific knowledge about metacognition and metacognitive strategies. As a result, they do not have metacognitive knowledge and do not use metacognitive strategies consciously.

5.1. Suggestions

In this part of the study possible suggestions for further studies will be discussed since it is believed that this study will cast light to other studies and also it will encourage the other instructors at the Academy. By doing so, the basic need of the students studying at GMMA will be supported. In the next part of this section, a sample lesson plan about metacognitive strategy training on reading medical texts will be presented.

The main concern of this study was to investigate metacognitive strategy needs of GMMA students on reading medical texts. It also investigated the cognitive reading strategies that the subjects used while TAPs. Further research may focus on

the effects of metacognitive strategies on reading medical texts. In order to do this, firstly, students' metacognitive knowledge must be investigated. It is believed that this study will provide the necessary information about students' metacognitive knowledge for such an investigation. Then, two groups of students can be tested with a reading comprehension test to measure the effects of metacognitive strategies knowledge on reading comprehension.

Investigating the relationship between the students' metacognitive strategy knowledge and their academic achievement can be recommended as another research focus. If a positive relationship between students' metacognitive strategy knowledge and academic achievement is found, the students can be trained through metacognitive thinking ability.

Another research can compare the performances of good and poor readers in terms of metacognitive strategy knowledge.

As for the pedagogical implications, it is strongly recommended that strategies must be given great importance when designing a new curriculum. And therefore, the findings can be used in choosing textbooks and reading materials that are likely to enable the development of the strategies that students should have.

To familiarize the students with the cognitive and metacognitive strategies, think aloud protocols are effective, useful and flexible techniques that help teachers find out what strategies students use. To do this, both the students and teachers must be trained. Teacher's modeling of the strategies to be taught is believed to be an essential component of classroom strategy training (Janzen; 1996). Research evidence suggests that students who practice thinking aloud can improve their reading ability. Teachers, therefore, can make their students think aloud while reading and help them to be more conscious of the strategies they are using (Kucan and Beck, 1997). And also, through think-aloud protocols students' reading strategies

can be identified. Students then become aware of their own strategies after a class discussion on them.

5.2. Sample Lesson: Strategy Training on Medical Texts

Strategy training, which can be another research area, draws upon two kinds of research. The first one is within the language learning literature referred by Rubin and Chamot. The second type of literature on learning strategy training is the considerable body of research on cognitive psychology (Wenden and Rubin, 1989). However, the number of the researches is still not satisfying. Chamot (1993) criticizes that although limited research on learning strategy training has been conducted, success has been reported in teaching students to apply learning strategies on second language tasks.

Oxford and Leaver (1996) state the goal of strategy instruction as to help students become more self-directed, autonomous, and effective learners through the improved use of language learning strategies. Strategy instruction involves active learning and growth on the part of each individual (1990:228). This means that each student must form his/her own strategies. Poor learners cannot become good learners by copying the strategy profile of them (1990:228).

Since strategy training is an important issue in teaching, different types of strategy training have been discussed; namely separate training, integrated training, embedded training and informed training.

In separate strategy training, a list of strategies is given to students and they are taught how to apply them outside of the normal class time due to the belief that learners will learn better if they are able to focus their attention on developing their strategic process without having to deal with the extra work at the same time. Integrated strategy training allows student to apply strategies with content material.

In embedded strategy training students are told to apply strategies, but not why. However, in informed strategy training the learners are told directly why a strategy might be useful for them and they are given chances to apply and test them.

Several researchers have made use of their findings from their research on strategy training and set up many models to teach strategies in classrooms. One of these models is Oxford's eight-step model (Oxford, 1990:204) that focuses on the teaching of learning strategies themselves, rather than on the broader aspects of language learning. Figure 4 displays this model.

1. Determining the learners' needs and the time available.
2. Select strategies well.
3. Consider integration of strategy training.
4. Consider motivational issues.
5. Prepare materials and activities.
6. Conduct "completely informed training".
7. Evaluate strategy training.
8. Revise strategy training.

Figure 4. Oxford's eight-step model (Oxford, 1990:204)

In the following lesson plan this model is taken as the departure point.

1. Determining the learners' needs and the time available: Students need to develop their knowledge of strategies both cognitive and metacognitive. Each lesson takes 50 minutes to cover.

2. Select strategies well: The students will come to understand that the purpose of reading is to gain meaning and that good readers employ a variety of

strategies to accomplish this goal. The students will learn to draw from their own background knowledge in order to increase comprehension, make inferences, and generate predictions (Metacognitive strategies-Centering your learning-Overviewing and linking with already known material).

3. Consider integration of strategy training: Students will apply the strategies they learn in the classroom with a given text titled "Pain" (See Appendix H).

4. Consider motivational issues: Teacher will tell the learners that use of appropriate strategies leads to greater motivation to learn. Also, students will be informed about the fact that as long as they apply strategies they understand the text better and they can accomplish their academic assignments.

5. Prepare materials and activities.

Pain (one copy for each student or each pair of students or use a over-head projector.)
Self-adhesive notes
Journal or notebook paper
Chart tablet paper

6. Conduct "completely informed training":
   a. Begin by brainstorming what the students believe good readers do, or think about, while they are reading. Write this list on chart tablet paper so that you can use it as a reference and add to it as the unit progresses.

b. Once a list has been compiled, let the students know that over the next several weeks they are going to be learning many of the things that good readers do. Remind them that they may already be doing some of these things and that these lessons may simply allow them to give names to things they already do.

c. Explain to the students that you are going to read aloud from Pain, occasionally stopping to think aloud. Let the students know that when you are thinking aloud you will close the book so that they know you are thinking and not reading from the book. Ask the students to concentrate on what you are saying during your "think alouds" and decide what they believe to be the topics of these "think alouds."

d. Begin reading aloud from Pain. Periodically stop to comment on connections you have made between yourself and your life experiences, and the book. For example, you may be similar to the main characters in that you wish for a time when money was not so tight, or you may set goals for yourself in an attempt to be a better person.

e. After the chapter is completed, ask the students to decide what you had been thinking about. Students should be able to say that you were thinking about your own life. At this point, let the students know that is something good readers do. Good readers draw connections between their lives and the books they are reading. These text-to-self connections are one way that readers activate their prior knowledge or schema. This allows readers to realize what they already know about a subject, thus making comprehension easier.

f. Next, have each student, or pair of students, read the next two paragraphs in the text. Provide the students with self-adhesive notes that they can place in the book when they make a text-to-self connection. At the end of the third chapter, students can use their reading journals, or a piece of notebook paper to reflect on the connections they have made.

g. At the end of the class, allow for a few minutes to share their time. Students enjoy talking about the text-to self-connections they made, and for those students who are struggling, hearing the connections made by other students often helps alleviate confusion.

7. Evaluate strategy training:

a. Since this is the first day of this activity, it may be wise to simply give students a participation grade based on whether they behaved appropriately during reading time, marked pages with self-adhesive notes, reflected on the activity in their journals, and shared at the end of class.

b. The journal entries could also be given a grade based on whether students reflected on their text-to-self connections and what they had learned.

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APPENDICES

APPENDIX A

QUESTIONNAIRE

Dear participant,

This questionnaire was designed as a part of the research study for the MA TEFL Program at Gazi University to identify the cognitive reading comprehension needs of students at Gülhane Military Medicine Academy.

The purpose is **not** to evaluate your reading comprehension ability. There are no right or wrong answers to the questions but it is important that you answer questions honestly. All of your responses will be kept confidential.

Thank you for your contributions.

Süleyman DAVULCU

Part 1. Please circle the appropriate response.

1. Gender

   a) male b) female

2. age between

   a) 16-19 b) 20-30 c) 24 and above

3. What kind of high school did you graduate from?

   a) State High School

   b) Anatolian High School

   c) Private High School

   e) Military High School

4. How long have you been studying English?

   a) 1-2 years b)3-4 years c) 5-7 tears d) 8 years and above

Part 11. The aim of this part is to understand what you do when you read a text in English. Please read each statement below and circle the number which you think is the most appropriate for you using the following scale:

always true of me	usually true of me	sometimes true of me	rarely true of me	never true of me
5	**4**	**3**	**2**	**1**

BEFORE STARTING TO READ A TEXT	always true of me	usually true of me	sometimes true of me	rarely true of me	never true of me
I read the title and imagine what the text might be about.	5	4	3	2	1
I look at illustrations/ pictures and try to guess how they relate to the text.	5	4	3	2	1
I first skim the text (read over the text quickly) then go back and read it carefully.	5	4	3	2	1
I read the firs line of every paragraph to understand what the text is about.	5	4	3	2	1
I think about what I know about the topic of the text.	5	4	3	2	1
Other (Please specify) _____ _____	5	4	3	2	1

WHILE READING A TEXT	always true of me	usually true of me	sometimes true of me	rarely true of me	never true of me
I read without looking up every unknown word in the dictionary.	5	4	3	2	1
I use an outside source, such as a dictionary if an unknown word seems important to me.	5	4	3	2	1
I try to see what I can get from the sentence or the paragraph to figure out what an unfamiliar word might mean.	5	4	3	2	1
I analyze the grammatical form of the word to figure out what an unfamiliar word might mean.	5	4	3	2	1
I remember a new word by thinking of a situation in which the word might be used.	5	4	3	2	1
I think that I can skip some of the unknown words and still understand the text.	5	4	3	2	1
I read a sentence again if I do not understand what it means.	5	4	3	2	1
I think about the other sentences in the paragraph if I do not understand what a sentence means.	5	4	3	2	1
I try to read without translating word-for-word.	5	4	3	2	1
I try to have a picture of the	5	4	3	2	1

events in the text in mind.					
I pay attention to words or phrases that show how the text is organized.	5	4	3	2	1
I take notes on important points of the text.	5	4	3	2	1
I make guesses about what will come next based on the information already given in the text.	5	4	3	2	1
I try to relate the text to what I already know about the topic in order to remember the important information I am reading.	5	4	3	2	1
Other (Please specify) _____ _____					

AFTER READING A TEXT	always true of me	usually true of me	sometimes true of me	rarely true of me	never true of me
I classify the words that I have seen in the text according to their meanings so that I can remember them.	5	4	3	2	1
I classify the words I have seen in the text according to their grammatical categories so that I can remember them.	5	4	3	2	1
I summarize the main ideas in my own words.	5	4	3	2	1
I go back and read the entire text over again if I do not understand parts of it.	5	4	3	2	1
I go back and read the entire text over again so that I can remember the important points.	5	4	3	2	1
Other (Please specify) _____ _____	5	4	3	2	1

APPENDIX B

CHECKLIST

Dear Participant,

This checklist was designed as a part of a research study for the MA TEFL program at Gazi University to identify the cognitive reading strategies that the students need to develop in order to continue their academic studies successfully. I would appreciate if you could complete this questionnaire. Your effort will contribute to the investigation of the role of strategy instruction in our reading curriculum. All of your responses will be kept confidential.

Thanks for your contributions

Süleyman DAVULCU

Does the existing reading curriculum provide opportunities for teaching the following reading strategies? Please tick the ones that are feasible.

1. Reading the title and imagining what the article might be about	____
2. Looking at illustrations/pictures and trying to guess how they relate to the text.	____
3. Reading over the text quickly to get the gist before reading in more carefully.	____
4. Reading the first line of each paragraph to understand what the text is about	____
5. Thinking about what is already known about the topic of the text is about.	____
6. Reading without looking up every word.	____
7.Using an outside source, such as a dictionary if the word seems important to know.	____
8. Guessing words from the context.	____
9. Guessing words from the grammatical forms.	____
10. Remembering a new word by thinking of a situation in which the word might be used.	____
11. Skipping words which do not interfere with understanding	____
12. Reading sentence again to remedy comprehension.	____
13. Thinking about the other sentences in the paragraph to understand what sentence means.	____
14. Not translating word-for-word.	____
15. Visualizing the events in the text.	

16. Paying attention to words or phrases that show hot the texts is organized.	____
17. Taking notes on the important points.	____
18. Making guesses about what will come next using the information present in the text.	____
19. thinking of relationship between already known material and new information to remember important information given in the text.	____
20. Classifying words according to their meanings.	____
21. Classifying the words according to their grammatical categories.	____
22. Making summaries.	____
23. Rereading the whole text when there is a comprehension problem.	____
24. Rereading the whole text to remember the important points.	____

APPENDIX C

WARM UP TEXT

POLITICAL ENGLISH

The language of politicians, especially when they are speaking in public, is an interesting mixture of old an new: it displays much of the ritual of the phraseology and consciousness of precedent which we associate with religion or law; and it makes use of the many of the rhetorical and dramatic techniques which we associate with advertising or the media. It is a variety of which is much abused. One of society's great paradoxes is that we elect to power people whose language we readily say we do not.

The notion of "confrontation" is probably the key. When two people of different political persuasions confront each other, there is more at the stake than grabbing the immediate meaning of the words they use. There questions of identity: does the language conform to that used in the policy statements in their party? There are questions of personal consistency: does the language say the same thing as it did on the pervious occasion that the speaker addressed the subject? There are questions of credibility: do the claims made by the language live up to date the actions which the speaker has undertaken?

APPENDIX D

THINK ALOUD TEXT

WHY STUDY GRAMMAR?

"Because it is there". People are constantly curious about the world in which they live and wish to understand it and (as with mountains) master. Grammar, is no different from any other domain of knowledge in this respect.

But more than the mountains language is involved with almost everything we o as human beings. We cannot live without language. To understand the linguistic dimension of our existence would be no mean achievement. And grammar is the fundamental organizing principle of language.

Our grammatical ability is extraordinary. It is probably the most creative ability we have. There is no limit to what we can say or write; yet all of this potential is controlled by a finite number of rules. How is this done?

Nonetheless, our language can let us down. We encounter ambiguity, imprecision, and unintelligible speech or writing. To deal with these problems, we need to put grammar under the microscope, and work what went wrong. This especially critical when children are learning to emulate the standards used by educated members of their community.

Learning about English grammar provides a basis for learning other languages. Much of the apparatus we need to study English turns out to be general usefulness. Other languages have clauses, tenses, and adjectives too. And the

differences they display will be all clearer if we have first grasped what is unique to our mother tongue.

After studying grammar, we should be more alert to the strength, flexibility, and variety of our language, and thus be in a better position to use it and to evaluate others' use of it. Whether our own usage in fact improves, as a result, is less predictable. Our awareness, must improve, but turning that awareness into better practice – by skills. Even after a course on car mechanics, we can still drive carelessly.

APPENDIX E

INTEVIEW QUESTIONS

A. Questions about metacognitive knowledge.

1. Do you think that you have made progress in reading texts since you started the academy?
2. How would you describe yourself as a reader?
3. What would you like to do better as a reader?
4. What do you think makes a reading text difficult to understand?
5. Do you use any special techniques that you find useful in reading?
6. Are you satisfied with the techniques you use when you are reading?

B. Questions about centering your learning.

1. Did you notice that was interesting for you?

C. Questions about arranging and planning

1. Did you use any strategies to understand the text?
2. Were you comfortable when you were reading?
3. Why do you read a text in a foreign language?
4. Do you make any preparation before reading a text?
5. Do you make possibilities to read in foreign language?

D. Questions about evaluating your learning?

1.Do you think you reading ability improve as long as you read?

APPENDIX F

CODING SCHEME

Pre-reading strategies

T - Use title

I - Use illustrations/pictures

R - Read over text

Rf - Read the first line of each paragraph

B - Consider background knowledge

While-reading strategies

Nd - Not use dictionary for every word

D - Consult dictionary for the important words

Cw - Guess the meaning of a word from the context

Gw - Guess the meaning of a word form the grammatical category

S - Think of a situation to remember a word

Sw - Skip words

Rs - Reread a sentence

Cs - Consider other sentences to understand a sentence

T - Translate

V - Visualize events

O - Recognize organization

N - Take notes

At - Assimilate the text with the passage events

Ab - Assimilate the text with background information

Post-reading strategies

Cm - Classify word according to their meanings

Cg - Classify words according to their grammatical categories

Sm - Summarize the main idea

Rc - Read the text to remedy comprehension failures

Rr -Reread the text to remember important information

APPENDIX G

STRATEGY PROFILES OF STUDENTS

MB

STRATEGY	SAMPLE
T	Why Study Grammar? **I think this text will give information about grammar and why we should study it.**
Nd	**I do not know these words: ambiguity, imprecision, and unintelligible. But I can tell that there may be some problems in language.**
Rs	This is especially critical...
Cs	Our grammatical ability is extraordinary. **Hmm, next sentence tells that we have a special ability.**
T	Other languages have clauses, tenses, and, objectives too. **Diğer dillerde de cümleler, zamanlar, ve sıfatlar var.**
At	"To deal with" **We have to examine grammar not to face these problems.**
Ab	Other languages... **Yes, all the languages have them.**
Rc	**There are some parts that I do not understand. I have to read them again.**
O	... and as it mountains master it. **There is an idiom here.**

HK

STRATEGY	SAMPLE
T	(Reads the title) **Oh, no! Is it about grammar?**
R	(Scans the text) **Grammar, yes it speaks about grammar.**
Nd	**I do not know "domain". It must be something like basic.**
D	**I need to look up "emulate".**
Sw	After studying grammar, we should be more alert to the strength, ... **I do not know about but this sentence talks about how to evade problems in language.**
Cs	And grammar is the fundamental organizing principle of language. **Yeah, in the previous sentence it said that grammar is important for a language.**
T	"Because it is there" **Evet işte burada.**
Ab	**If we do not continue studying grammar we forget it. So, it is such a lesson that it requires studying all the time.**
Rc	(The student wants to read the text again).

SD

STRATEGY	SAMPLE
Sf	(The student reads the first line of each paragraph) **I think it talks about the significance of grammar in learning English.**
D	**I do not know ambiguity. I need to check it.**
Cw	"Let down" means putting someone in a difficult position I guess.
Rs	**Our awareness must improve...**
Cs	We encounter ambiguity, imprecision, and unintelligible... **Aha, the next sentence says there are problems in language.**
T	It is probably the most creative ability we have. **Belkide bu sahip olduğumuz en yartıcı yetenek.**
At	"Because it is..." **What this sentence means is interesting.**
Sm	**This paragraph says people want to develop their language.**

AA

STRATEGY	SAMPLE
T	Why Study Grammar? **I think it talks about how important grammar is.**
R	(Scans the text) **I am right. It is about grammar's importance.**
Nd	Nonetheless, our language can let us down. (Student hesitates and goes on reading)
D	What does emulate mean?
Cw	People are constantly... **People wonder what is happening in the world.**
Rs	Much of the apparatus...
T	Our grammatical ability is extraordinary. **Gramer yeteneğimiz olağanüstüdür.**
Ab	**Practice is an important factor that affects language usage.**
Rc	**I will read from the top to the bottom again.**
O	**What is the function of dash here?**

MA

STRATEGY	SAMPLE
T	(Read the title) **This text will be about grammar I think.**
R	(Scans the text) **Yeah, it is about grammar and how important it is in our language.**
Nd	After studying grammar... flexibility (Hesitates and goes on reading).
D	**What does let down mean?** (The student looks up the dictionary)
Gw	Our grammatical category is extraordinary. **"Extraordinary" it cannot be a verb; it is either a noun or an adjective.**
Sw	ambiguity, imprecision, and unintelligible...
Rs	But more than mountains... (The student reads)
Cs	Much of the apparatus... **The previous and the following sentences make this sentence more meaningful to me.**
T	Even after a course on car mechanics we can still drive carelessly. **Araba mekaniği üzerine alınan bir dersten sonra bile hala dikkatsiz araba kullanabiliriz.**
At	"We encounter ambiguity" **Hah, these let us down.**

Ab **Rules have to exist people cannot do whatever they like.**

Sm **It is on the whole about grammar and language. It emphasizes the importance or grammar.**

EE

STRATEGY	SAMPLE
R	(Scans the text) **Grammar is the subject of this study.**
Nd	... and wish to understand it and as with mountains mater it. **Learn it better.**
D	As with mountains. **What does it mean? Let me check it.**
Cw	We encounter... **Hah, it says we come across some problems.**
T	How is this done? **Bu nasıl yapılır?**
Rc	**I did not understand completely. May I read it again?**

SG

STRATEGY	SAMPLE
T	(Reads the title) **Hmm, the subject is grammar.**
Nd	...are learning to emulate (stops) **...the students used by educated...**
D	**I do not know all these words: ambiguity, imprecision, unintelligible.** (Looks up the meanings in the dictionary)
Rs	After studying grammar...
Cs	But more than mountains... **Yes, we cannot live without language.**
T	It is probably the most creative ability we have. **Belkide sahip olduğumuz en yartıcı yetenek.**
At	If knowing English grammar makes learning other languages easier. Much of the apparatus we need to study English turns out to be of general usefulness.
Rc	(The student goes to the top of the text, and reads again)
O	"Even after a course..." **There is a metaphor here.**

KD

	STRATEGY	SAMPLE
T	(The student reads the topic) **Oh, it will be about grammar.**	
B	We would not carry our deeds if there were no languages.	
Cw	We encounter ambiguity, imprecision and unintelligible... **What are they? Ah it says there are problems.**	
Gw	Nonetheless,... **What is this? A connective word?**	
Sw	If we have first grooped (stops)...	
At	"We cannot live" **Of course we cannot live without a language.**	
Ab	They have common rules from Latin. **Yes they have many similarities.**	

HB

STRATEGY	SAMPLE
B	Grammar is the basis of a language. If there were no grammar nobody could communicate.
D	**What is predictable? I will look it up in the dictionary.**
Rs	Much of the apparatus... (The student reads the next sentence) **I see. All the things we learn while learning a language may help to learn other languages.**
At	Learning about... **Sometimes knowing the grammar of your mother tongue facilitates learning others.**
Rc	The student reads the text.

EM

STRATEGY	SAMPLE
T	(Looks at the topic and reads it) **Hmm, it will talk about why we have to study grammar.**
D	**What does emulate mean? It is a funny word. I will look it up in a dictionary.**
Cw	Our grammatical ability is extraordinary. **What does extraordinary mean?** (Reads the next sentence) **Aha, it is something like special.**
Rs	But more than mountains...
Cs	Nonetheless, our language can let us down... (The student reads the next sentence) **Hmm, yes sometimes we fail to understand.**
Ab	There is a difference between written language and spoken language. Grammar becomes much more important in written language. If we want to read a written text we have to know grammar rules.
Rc	The student rereads the text.

APPENDIX H

PAIN

Pain is a common and definite event, which can be easily recognized; but the observation of its effect on character or behavior is less easy, less complete, and less exact, especially in the temporary relation of doctor and patient. In spite of this difficulty, certain impressions gradually take form in the course of medical practice, and are confirmed as experience grows.

A short attack of severe physical pain is overwhelming while it lasts. The sufferer is not usually loud in his complaints. He will beg for relief but does not waste his breath on explaining his troubles. It is unusual for him to lose control and to become wild and irrational. It is rare for the severest physical pain to become in this sense unbearable. When short, severe, physical pain passes, it leaves no obvious alteration in behavior.

Long-continued pain has more noticeable effects. It is often excepted with little or no complaint and great strength and resignation are developed, resulting in a determination to conceal suffering. Only some victims of chronic pain become irritable in character, selfishly expecting care from others all the time. The wonder is that the failures are so few and heroes so many; there is a challenge in physical pain which most can recognize and answer.

Mental pain is less dramatic then physical pain, but it is more common and also harder to bear. The frequent attempt to conceal mental pain increases the burden; it is easier to say "My tooth is aching" than to say "My hearth is broken". Yet, if the cause is accepted and faced, the conflict will strengthen and purify the character and in time the pain will usually pass. Sometimes, however, it persists and the effect is devastating. In such cases if the cause is not faced or not recognized, it

produces the state of chronic mental illness. But some, by heroism, overcome even chronic mental pain. They produce brilliant work and strengthen, harden and sharpen their characters till they become like steel.