

GAZİ ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ
YABANCI DİLLER EĞİTİMİ ANA BİLİM DALI
İNGİLİZCE ÖĞRETMENLİĞİ BİLİM DALI

THE EFFECTS OF READING STRATEGIES ON THE IMPROVEMENT
OF INFERENTIAL SKILLS

DOKTORA TEZİ

Hazırlayan
Ahmet ŞAHAN

Ankara
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ÖZET

OKUMA STRATEJİLERİNİN ÇIKARIMSAL OKUMA BECERİLERİNİN İYİLEŞTİRİLMESİNE ETKİSİ

Bu araştırmanın amacı, Gazi Üniversitesi Eğitim Fakültesi İngilizce öğretmenliği programı birinci sınıf öğrencilerinin okuduğunu anlamada gerekli bilgi kaynakları ve stratejilere sahip olup olmadıkları ve bunları okuduğunu anlamada uygun biçimde ve stratejik olarak kullanıp kullanmadıklarını ortaya çıkarmaktır.

Öncelikle, 2006–2007 akademik yılı bahar yarıyılında birinci sınıf öğrencilerine, yararılandıkları bilgi kaynakları ve stratejileri belirlemek üzere 50 soruluk Likert tipi bir ölçek uygulanmıştır. Öğrenciler, ölçekten oldukça yüksek puanlar almışlardır. Böylece, öğrenciler, ölçekte belirtildiği gibi gerekli bilgi kaynakları ve stratejilere sahip olmaları ve metni uygun stratejiler kullanarak okumaları gerektiğine katılmalarına karşın, ölçeğin hemen ardından uygulanan ön test sonuçlarına göre, öğrencilerin temel okuma becerileri ve çıkarımsal okuma becerilerinde oldukça zayıf oldukları ortaya çıkmıştır.

Ön testin ardından söz konusu metni anlamak için, ilgili bilgi kaynakları ve stratejileri ne ölçüde kullandıklarını belirlemek için her bir öğrenciye sesli düşünme protokolü yöntemi uygulanmıştır. Analiz sonuçlarına göre, ön testtekine paralel bir sonuç çıkmıştır. Buna göre, öğrenciler gerekli bilgi kaynakları ve bilişsel ve üst bilişsel stratejilerden yararlanamamaktadırlar ve bunları uygun biçimde kullanamamaktadırlar.

Böylece, bu üç ölçme aracının sonuçlarına dayalı olarak, okuma performanslarının tüm yönlerini iyileştirmek üzere öğrencilere 2007–2008 akademik yılı güz yarıyılında bir strateji eğitimi uygulanmıştır. Okuma stratejisi eğitiminden sonra bir sontest uygulanmıştır. Böylece, öğrencilerin okuma stratejisi eğitiminden ne kadar yararlandıkları ortaya çıkarılmıştır. Sonuç olarak, öğrenciler zayıf olan okuma performanslarını iyileştirmişler ve bunları ileri bir düzeye çıkarmışlardır. Sonuçlara dayalı olarak, okuduğunu anlama ve okuduğunu anlama eğitimiyle ilgili bazı önerilerde bulunulmuştur.

Anahtar Sözcükler: Okuduğunu anlama kuramları, bilgi kaynakları, stratejik okuma, bilişsel ve üst bilişsel stratejiler, çıkarım ve çıkarım kuramları, okuduğunu anlama eğitimi, ana dil ve yabancı dilin okumadaki rolü ve iyi ve zayıf okuyucular.

ABSTRACT

THE EFFECTS OF READING STRATEGIES ON THE IMPROVEMENT OF INFERENTIAL SKILLS

The aim of this study is to reveal whether in reading comprehension, Gazi University Faculty of Education English Language Teaching Department first year students have the necessary knowledge sources and strategies and whether they use them appropriately and strategically in reading comprehension.

In the fall semester of 2006–2007 academic year, the first year students were first administered a 50 item Likert type scale in order to determine the knowledge sources and strategies they utilize. The students scored quite high points on the scale. Thus, although they, as stated in the scale, agreed that they were supposed to have the knowledge sources and strategies and to read the text by using appropriate reading strategies, it was revealed that they are quite poor at basic reading skills and general and inferential reading skills by the results of the pre-test administered soon after the scale.

Following the pre-test, each student was applied the Think-aloud method to reveal to what extent he uses the knowledge sources and strategies. By the results of the analysis, a parallel result emerged to that in the pre-test; that is, the students cannot benefit from the necessary knowledge sources, and cognitive and metacognitive strategies and they cannot use them appropriately.

Thus, based on the results of these three instruments, the students were given strategy instruction in the fall semester of 2007 – 2008 academic year in order to improve all the aspects of their reading performance. After the strategies instruction, a post-test was administered. Thus, it was revealed how much the students benefited from the reading strategies instruction. As a result, they improved their poor reading performance, and advanced these qualities to a further level. Based on the results, some suggestions were made regarding some aspects of reading comprehension and comprehension instruction.

Key Words: Theories of reading comprehension, knowledge sources, strategic reading, cognitive and metacognitive strategies, inference and theories of inference, reading comprehension instruction, role of L1 and L2 in reading, and good and poor readers.

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CHAPTER I

1. INTRODUCTION: CHARACTERISTICS OF THE READING PROCESS

Reading is a complicated skill which occurs with the combination of attention, memory, perceptual processes, and comprehension processes (Kern, 1989: 135-149), and it is the mosly utilized skill to get information and increase knowledge. Carrell (1989: 121-134) recognizes reading as probably the most important skillll in academic contexts because most students in academic settings learn a second language – especially English – to gain information through reading. Also, reading is viewed as the most important skill to be mastered for students in a second language academic environment. Thus, reading is used not only to transmit academic knowledge but also as a secondary source to obtain information which may have been missed during class discussions or lectures. Furthermore, there are a number of other purposes for reading, especially in academic contexts, such as reading to search for information, reading to skim quickly, reading to integrate information, reading to write, reading to critique, and reading to learn (Grabe and Stoller, 2002). People also read for pleasure, which is one form of extensive reading. Moreover, the reader's understanding or interpretation of the text usually depends on his purpose.

Many researchers agree that reading is purposeful, interactive, comprehending, flexible, evaluative and gradually developing. Reading is purposeful because the reader has a purpose for reading such as getting information or entertainment. Reading is interactive because the reader benefits not only from textual information but also from his knowledge of the world in trying to comprehend the text. Furthermore, a good reader does not worry whether he will understand a text as he starts reading. He simply expects to understand what he reads. Reading can also be considered as flexible because the reader benefits from different strategies according to his changing purposes in the act of reading. Reading involves evaluation skills as well because it is necessary for the reader to critique textual information and assess his own reading performance. Finally, reading develops gradually. The reader does not reach sudden or immediate development in reading, but he has to invest long-term effort and practice in the process of reading, which will result in efficient reading performance (Grabe, 1991: 379-381).

Clarke and Silberstein (1977: 136-137) characterize reading as an active comprehension process, and suggest that a student should be taught strategies to read better and should be provided with various approaches for better comprehension. Therefore, research in second and foreign language instruction has begun to focus on strategies used by readers. Furthermore, it is widely acknowledged that strategy use improves reading comprehension and that most readers will face many difficulties if they do not take up using a variety of strategies (Carrell, 1989: 121-134). Consequently, reading strategies are required for efficient reading, and in every reading lesson they should be introduced, practiced and their use should be discussed by asking such questions as what strategies to use in comprehending different texts, and where, when, how, how much, how often, and why to use them. A reader who knows what strategies he is supposed to use, who can ask the above questions, and who can fulfill the requirements of those questions can be called a strategic reader. It has been observed that such a reader is able to combine a lot of strategies rather than using them in isolation. Thus, in connection with this, strategic reading and properties of a skilled and an unskilled reader can be mentioned. Strategic reading entails competence in knowing both what strategies to use and how to apply them in combination according to different reading purposes (Anderson, 1991: 460-472). There are numerous empirical studies conducted into reading strategies and their relationship to successful and unsuccessful second language reading (Block, 1986: 463-494; Carrell, Pharis, and Liberto, 1989: 647-678; Green and Oxford, 1995: 261-297). These researchers suggest that while a successful reader is able in these components, a less successful reader needs consciousness-raising programs to be more aware of reading strategies and to develop competence and confidence in reading. Therefore, based on the findings emerging from their studies, they highlight the fact that a less successful reader can improve his skills and strategies in reading by getting training in the strategies employed by a more efficient reader. A successful learner has an awareness of his strategy use and why he uses strategies. Such a learner is able to adjust his strategies to language tasks and to his needs. However, a less successful learner cannot choose appropriate strategies or decide on how to connect them to have a useful strategy chain although he is able to identify his own strategies. Therefore, since 1970s, second language theorists have recommended that the teaching of a variety of strategies helps students read better because it has been observed that different proficiency readers of all ages use many strategies in reading comprehension. Thus, overall improvement in reading

comprehension is dependent on the improvement of skills and strategies and explicit training of strategies has often led to successful reading comprehension (Barnett, 1988: 150-162).

Reading strategies are commonly categorized as metacognitive, cognitive, and social/affective. Metacognitive strategies are higher order executive skills which entail planning for, monitoring or evaluating the success of a reading task. They are used to supervise, regulate or self-direct, and they are applicable to almost all types of learning tasks. Among the metacognitive strategies are directed attention, self-evaluation, self-management and self-monitoring. Cognitive strategies refer to the steps or operations used in learning or problem-solving, which require direct analysis, transformation, or synthesis of learning materials. They operate directly on new information and control it to promote learning. Unlike metacognitive strategies, cognitive strategies may not be applied to all types of learning tasks. Rather, they seem to be directly connected to specific learning tasks. Social/affective strategies which are exemplified as cooperating and asking for clarification have to do with the ways in which a learner chooses to interact with other learners and native speakers. They may be applied to a broad range of tasks (O'Malley and Chamot, 1990: 44-47).

On the other hand, Oxford (1990) gives a more detailed and comprehensive taxonomy than earlier classifications of strategies. In her classification, strategies are first distinguished as direct and indirect. Indirect strategies are divided into metacognitive, affective and social. Metacognitive strategies help a learner coordinate his own learning process and they are essential for learning a language successfully. They require a learner to plan, arrange, and evaluate his own learning through direct attention and self-evaluation, organization, setting goals and objectives. Affective strategies are used to control emotions, attitudes and motivation, lower anxiety, and encourage oneself and learning. Social strategies involve learning through interaction with others; for example, by asking questions, cooperating with peers, questioning, asking for correction and feedback, and developing cultural understanding. Direct strategies are memory, cognitive and compensatory strategies. Memory strategies assist a student in storing and recalling new information; for example, by creating mental images through grouping, associating and semantic mapping, using key words, employing word associations, and placing new words into a context. Cognitive

strategies, which are said to be the most popular strategies among learners, help a student to understand and produce the new language by repeating, summarizing, reasoning deductively, predicting, analyzing, using context clues, note taking, and practicing with the specific aspects of the target language such as sentence structure and unknown vocabulary. Compensation strategies enable learners to use the language by filling in gaps in their knowledge by guessing, inferencing, using reference materials such as dictionaries, and using synonyms or antonyms.

Since strategies are essential for successful comprehension to occur, various studies have been conducted to investigate the effects of strategy training on students' strategy use (Kern, 1989: 135-149; Anderson, 1991: 460-472; Auerbach and Paxton, 1997: 237-261; Salatacı and Akyel, 2002: 1-16). The results of these studies investigating both students' strategic behaviors and the effects of strategy training demonstrate the positive outcomes of strategy instruction in terms of raising students' awareness of reading strategies and promoting efficient reading. Therefore, effective reading strategy instruction should involve training in when, where and how to use strategies in harmony (Carrell, 1989: 121-134) rather than instructions on individual reading strategies because the long-term purpose of strategy training is to raise students' awareness of reading strategies and to create independent strategic readers (Grabe and Stoller, 2002).

1.1 PROBLEM OF THE STUDY

In the study, both general and inferential skills and strategies will be elaborated on and a taxonomy of inferences will be made. Reading comprehension can be realized by the possession of certain knowledge sources, skills and strategies and also by employing all these in particular ways in order for the reader to draw the intended messages from the text. Thus, what is possessed by the reader constitutes knowledge sources, and how the text is approached in order to obtain intended messages by utilizing this knowledge sources constitutes strategies. The reader also approaches the text in certain ways in order to discover gaps in it and to fill in those gaps, that is, to deduce unstated propositions. These unstated propositions are called inferences. Inferences too are discovered and drawn by utilizing knowledge sources, which, in the case of inferencing, is called inferential strategies. However, in order to perform this higher order skill, inferencing from texts, the learner needs a stock of knowledge

sources, basic reading skills and strategies, which constitute prerequisites for literal comprehension of the text. Therefore, those knowledge sources, basic reading skills and strategies can be considered as comprehension infrastructures which lead to a deeper comprehension, which can also be termed as inferential comprehension. It is also these knowledge sources, basic reading skills and strategies which will be elaborated on and treated in order to account for their roles as contributing to and facilitating deeper comprehension. These three elements are utilized by the reader in order to comprehend the text. Thus, how the reader utilizes knowledge sources will reveal his strategy profile. By this profile which will emerge, it will be possible to make diagnoses about whether or not the learner approaches the text with appropriate and correct tools to achieve comprehension in general and inferential comprehension in particular.

1.2 PURPOSE OF THE STUDY

Reading is defined as an active process where there is an interaction with the text in order to produce meaning out of written discourse (Silberstein, 1994: 6). However, recent emphasis on reading is that it has a psycholinguistic perspective: efficient readers make predictions about the content of the text. Also, such readers make use of textual clues, knowledge of the world and experience, and they develop expectations about what they will read. Then they read to verify or refute these predictions and expectations (Goodman, 1967: 126-135; Smith, 1971: 59).

As stated in the above definitions of reading, it involves a cognitive activity on the part of the reader in order to make sense of the text. Therefore, since reading is an active cognitive activity, it would be appropriate to investigate what is going on in the reader's mind during reading in order to reveal what cognitive activities and tasks the reader performs to make sense of the text by combining the content of it and his experiential and background knowledge. Those cognitive activities and tasks performed during comprehension will reveal how he approaches the text and directs his cognition and benefits from his pre-existing schemata. Therefore, the answers to these "how" questions will give a set of tactics and strategies he employs in comprehending the text. From the profile of these tactics and strategies, it will be possible to diagnose his weaknesses and strengths regarding comprehension, and give remedial instruction.

Having established this framework, the primary purpose of the study is to reveal the learners' strategy profile in reading comprehension, specifically on making inferences from texts. Thus, the secondary purposes are as follows:

1. Whether or not learners have sufficient linguistic, experiential (background → schemata, frames, scripts), cognitive and metacognitive knowledge sources for comprehension.
2. Whether or not they utilize appropriately these knowledge sources as strategies for comprehension.
3. Whether or not they are aware of utilizing these knowledge sources. That is, do they know why they use what they know? Or do they know what to use for what and for what purpose? Thus, do they possess the ability to turn these knowledge sources into strategies appropriately as required?

1.3 SIGNIFICANCE OF THE STUDY

Contemporary perspectives suggest that interactive approaches to reading should be adopted. In these approaches, there are two types of cognitive skills which Grabe (1991: 375-406) terms as identification and interpretation. At the level of cognitive skills of identification, the reader employs skills which allow him to recognize words and grammatical forms rapidly and automatically. These skills are called lower level skills and they involve rapid and precise unconscious processing, which is termed as automaticity. In contrast, at the level of cognitive skills of interpretation, the reader comprehends and interprets the text, which involves the use of higher level skills. Thus, inferencing can be placed within the skill of interpretation as well because it covers all the sub-skills involved in making interpretation.

Inference making is regarded as a significant skill in some theories of comprehension. First, it is one of many meaning construction strategies together with strategies for visualizing, monitoring and evaluating comprehension (Pressley and Afflerbach, 1995). Second, it functions as binding the construction of meaning (Suh and Trabasso, 1993: 270-301). Inferences are not limited to performing only these functions. In addition, they perform many other crucial functions along with their significance in reading comprehension. These will be discussed in the next chapter.

This connecting function of inference is termed as coherence, which is one of the essential characteristics of textuality. Coherence in the text can be ensured in a certain way. Sentences in the text do not stand in a random order, but they are ordered in such a way that they form a logical and meaningful dependency. Such a dependency among sentences is ensured through conceptual, semantic, temporal and spatial ties and the like. Sentences follow one another by these ties, and thus, they form a hierarchical network of relationships. This hierarchical network of relationships among sentences constitutes coherence. The writer of the text establishes coherence within the text; likewise, the reader has to perform the task of perceiving the text coherent if he is to make sense of it. He has to recapture logical relationships among sentences which may be explicit or implicit. When they are implicit, the reader has to fill in gaps in the text to discover those relationships, and thus, he resorts to drawing inferences. Therefore, inferencing has a very significant role to play both in making the text coherent in order to represent it in the mind as a meaningful whole and thus in discovering implicit relationships among sentences via inferring them. Inferencing helps the construction of meaning by fulfilling the function of making a piece of text coherent. Thurlow and Paul (1997: 4) state that in the reading process the reader ultimately integrates the text into a complete and coherent representation in his memory. He achieves this memory representation by comprehending the ideas in the text and the relations which connect those ideas together through inferencing if relations among ideas within the text are implicit.

The two types of cognitive skills discussed and termed as identification and interpretation manifest themselves in reading comprehension questions as well. Thus, reading comprehension questions can be classified into three types in terms of these skills (Williams, 1984: 56-58). Type one questions simply require the reader to find the sentence which corresponds. Such questions are termed as direct reference questions. Type two questions require a little more effort on the part of the reader, and they also give evidence of comprehension. These questions are termed as indirect reference questions. Type three questions take the reader beyond the linguistic level of the text and require him to understand the relationship between one part of the text and another, for instance, a paragraph, a sentence or a part of a sentence. They are called inference questions. According to Williams (1984: 56), inference questions not only check comprehension, but also help comprehension by drawing the reader's attention to

relationships which may have been missed. Thus, full comprehension can be possible only after all the relationships within the text are discovered by inferring them.

As discussed above the role and function of inferences in reading comprehension are crucial. However, it is this higher level skill of reading comprehension with which most readers have difficulty, and not all students can develop inferential skills at a satisfactory level. Thus, readers who have difficulty in comprehension exhibit the following characteristics during comprehension: They tend to comprehend the text at the literal level; they fail to establish connections between and/or among linguistic units, that is, words, clauses and sentences; and they cannot utilize their background knowledge appropriately to integrate it with the text content. These prevent them from making predictions, and thus, comprehending the text. As a result, they fail to make an integrated mental representation of the text content. Thus, such readers also have difficulty making inferences from the text. Moreover, a lack of inferential skills could cause vocabulary deficiencies as well, which in turn makes comprehension difficult (Bowyer-Crane and Snowling, 2005: 190). In their study, Dewitz and Dewitz (2003: 431) found similar comprehension difficulties. These were failure to make relational and causal inferences, inappropriate application of background knowledge and failure to monitor and select appropriate strategies. The significant comprehension difficulty detected was the inability to connect ideas within the text. Likewise, based on her observation of readers' problems with reading, Silberstein (1994: 7) states that while readers are relatively good at lower level skills, their problems lie primarily with higher level skills, for example, making inferences from the text.

According to Block (1992: 319-343), lower and higher proficiency level students differ in their choice of processing strategies, which involves a different level of comprehension, that is, literal or deeper. Lower proficiency students tend to rely more heavily on bottom-up and text-based strategies, while more advanced readers are able to engage in top-down processes based on prior knowledge and schemata. These top-down processes include the knowledge of content (background knowledge and cultural schemata) as well as knowledge of text structure (formal schemata of different text genres). In their research regarding inference generation ability of readers, Bowyer-Crane and Snowling (2005: 198) suggest that difference in performance of comprehension may lie in the strategies which readers draw upon while searching for

information in the text. This view is also supported by Cain and Oakhill (1999: 489-503) and Cataldo and Oakhill (2000: 791-799). Furthermore, they suggest that although readers with comprehension difficulties are in possession of the knowledge needed to answer comprehension questions, they are unaware of the need to draw on that knowledge when questions are presented to them. Therefore, it can be concluded that the main problem readers have in comprehension lies in not being able to turn their knowledge sources into appropriate strategies and not being able to read strategically.

From these findings on comprehension difficulties and reading strategies which are employed during reading comprehension, it can be concluded that comprehension difficulties do not stem alone from not being able to make inferences from the text. The fact that learners stay at the identification level and that they cannot pass from this level to the interpretation level result in the above discussed comprehension difficulties and inappropriate strategy choice. Thus, not being able to make inferences is not the main cause of comprehension difficulties, but it is the result of such comprehension difficulties.

As a solution to these comprehension difficulties, reading comprehension strategy instruction is suggested, and there is evidence that such instruction improves comprehension (Rosenshine and Meister, 1994: 479-530). It is crucial that strategy instruction should be suited to individual needs and preferences of readers. However, there is a general agreement that comprehension strategy instruction should cover the skills of predicting, self-questioning, inferring, summarizing, visualizing and monitoring own comprehension for all types of readers (Dole, Duffy, Roehler and Pearson 1992: 239-264).

Therefore, inference making deserves special attention as a critical strategy, and readers should be trained in inferential strategies. Since inferences are regarded as forces binding ideas together in the text, and subsequently constructing of meaning, strategies may exist to promote (predicting, self-questioning), to direct (visualizing, searching for importance, summarizing) or to evaluate (monitoring) these inferences. Although strategy instruction may have some impacts on changing the thinking process of the reader in order to promote more engagement with the text, strategy instruction alone cannot make all readers proficient and efficient readers. Strategy instruction cannot change what happens in the mind; however, it can affect it indirectly. Thus,

teaching the above strategies make readers more purposeful, thoughtful and reflective in their thinking. As this process goes on, they become skilled both at comprehending what they read and at drawing inferences (Dewitz and Dewitz, 2003: 431-432).

To summarize the information above, it can be said that reading comprehension is a cognitive task. As a result, revealing what cognitive and metacognitive activities go on in the reader's mind during comprehension will give a clear picture of how he approaches the comprehension task because what steps he takes to comprehend the text is more important than his finding the correct responses to comprehension questions. The reader can be regarded to have comprehended the text fully if he can ultimately justify the choices which he makes during comprehension. Moreover, the sources of the reader's comprehension difficulties can be diagnosed and remedied accordingly. Also, it can be possible to identify why some readers are good at comprehension and why others are not good at it. As a result, suggestions can be made regarding how readers should be trained in these skills and strategies, and how they can be given strategy-based instruction regarding general and inferential skills and strategies to improve their comprehension.

As a micro-skill of reading, inferencing falls into higher level skills, and most readers have problems with these skills. Therefore, it is considered significant that the cognitive aspect of reading should be studied in order to identify what linguistic, cognitive and metacognitive factors make inferencing challenging for readers. As it has been stated before, reading is an active cognitive activity. Therefore, it would be a legitimate springboard to study what cognitive and metacognitive tools which the reader makes use of in a reading task. Furthermore, where, when, how, how frequently, why and in what circumstances he uses such tools is significant in order to describe his cognitive and metacognitive strategies and skills profile, and hence, to reveal and account for his use of and preference for certain reading skills and strategies by this profile. By doing this, readers' difficulties can be recognized and diagnosed to remedy them.

Depending on our personal observation and experiences, we agree that our readers, in this case the freshman students at Gazi ELT program, habitually view reading comprehension as the mere understanding of the text and answering comprehension questions. Although they all possess the necessary knowledge sources to

comprehend the text, they are not aware of these knowledge sources, and they cannot use them metacognitively. That is, they usually do not know when, where, how, how much, how often and why they are supposed to utilize those knowledge sources in text comprehension. As a result, they cannot develop a strategic reading approach towards the text in order to draw intended messages and remedy possible comprehension difficulties in it. Moreover, some students still tend to stick to lower level skills of reading and they do not want to go beyond them. Thus, they adopt an approach which leads to a superficial understanding of the text. As a result, their comprehension level is very low because they have not developed metacognitive awareness and higher order skills of reading.

This study is considered to be significant for another reason as well. In the literature, no studies have been found by the thesis writer, which investigate the strategies concerning inferencing in reading comprehension although some studies are found on reading comprehension skills and strategies in general. Therefore, the present study is expected to make a contribution to this gap in the literature.

1.4 HYPOTHESES OF THE STUDY

The hypotheses of the study can be listed as follows:

1. The students are expected to agree that while reading the text they have to utilize the necessary knowledge sources and reading skills and strategies which are stated in the questionnaire.
2. The students are expected to exhibit very high scores in the Reading Skills and Strategies Questionnaire.
3. The students are assumed to possess the necessary knowledge sources.
4. The students are assumed not to resort to appropriate reading skills and strategies while reading the text.
5. The students are assumed not to suit reading skills and strategies to their reading purpose.

6. The students are assumed not to employ cognitive and metacognitive skills and strategies in justifying their use of and preference for certain reading skills and strategies to show that they have comprehended the text.

7. The students are assumed to be incompetent at general and inferential reading skills and strategies.

8. The students are expected to display noticeable improvement in the above mentioned strategies and skills at the end of a period of instruction comprising practical work relevant to inferential skills within efficient reading strategies.

All these hypotheses have been tested by the relevant instruments, and the results have been discussed.

1.5 SCOPE AND LIMITATIONS OF THE STUDY

Reading skills and strategies in general and inferencing, as a higher order reading skill in particular, are within the scope of the study. Reading, theories of reading comprehension, inferences, types of inferences and theories of inferential processing have been investigated. The focus of the study is on the exploration of general reading skills and strategies, and inferential reading skills and strategies which the students employ in text comprehension. Furthermore, whether the students use cognitive and metacognitive skills and strategies in general and inferential reading skills and strategies in particular is also included in the study.

The limitations of the study are the following:

1. The study is limited to the exploration of how both general and inferential skills and strategies are utilized by the readers during reading. The exploration of these skills and strategies will help to diagnose the readers' strengths and weaknesses in reading comprehension. Thus, remedial teaching will be held to strengthen their weaknesses, to make them cognitively and metacognitively aware of their reading comprehension, and to make them strategic readers. A significant reason for inferential ability being the focus of the present study is that full reading comprehension can be ensured if all the necessary inferences are drawn from the text and that inferences function in reading both as contributors to comprehension and as comprehension checkers.

2. It is difficult to define and name strategies because they can manifest themselves at a behavioral level, or they can be directly observed such as in ‘note taking while reading’, or they may be mental, so they may not be directly observed such as in ‘recalling background information’ (Cohen, 1996). Although some researchers state that there is a clear-cut difference between strategies and skills, such a difference is controversial and there are many different classifications. For instance, Cohen (1996) states that strategies are conscious tactics or techniques which can be described when they are asked about, that skills are automatic behaviors, and that strategies become skills when they become automatic. However, it is possible that good readers may use strategies without being aware of them and they may not be able to report them when they are asked about. Thus, it is difficult to define whether a particular reader uses or does not use a particular strategy and/or skill.

3. Readers may be asked to report on their strategy use while performing a reading task; however, this is not natural because it is impossible to see how cognition functions. Also, readers may not necessarily provide adequate and correct information about their strategy use. Furthermore, there may not be one-to-one match between some strategies, particular reading tasks and the type and complexity of the text.

4. The length of time is disputable. Although some research supports the application of strategy instruction application over a long period of time, because of the time limit, the reading strategy instruction in this study was conducted for only three weeks, which was not adequate to generalize the possible effects of strategy instruction on the students’ strategy use. Due to the time limitation, the students were not provided with multiple practice opportunities on various text types and there were no optimal conditions for the students to choose appropriate strategies for a variety of text types on their own.

5. There is the problem of whether strategy instruction should be integrated into the classroom. While most support explicit strategy instruction and an integration of strategies into regular classroom activities (Oxford 1990; O’Malley and Chamot, 1990, 1994; Cohen, 1998; Janzen and Stoller 1998: 251-269; Chamot et al., 1999; National Reading Panel, 2000), some researchers recommend that language learning strategies should be taught as a separate course or parts of a course. Therefore, there are also conflicting views on this issue. In this study, strategy instruction was given separately.

6. The choice of an instructional model is also a problem. A number of instructional models have been developed and optimal strategy instruction is held to follow one of several different sequences of strategy presentation - linear, cyclical, or strategy chain (O'Malley and Chamot, 1990). There is no agreement on which sequence or procedure is the best to support successful reading comprehension. In this study, the design of the activities and the choice of an instructional text were mainly decided by the researcher according to the analysis of the data obtained before the treatment started and his perceived importance of reading strategies.

7. It is difficult to find the most appropriate instrument to reveal students' strategy repertoires. The strategies in question can be revealed by the administration of questionnaires and interviews, and it is easy to use the data obtained in the statistical analysis (Oxford, 1996: 25-45; Cohen, 1998); nevertheless, the students may still not have reported their actual strategy use during the reading task. Moreover, they may not have accessed their strategy repertoires or may not have reported their real strategic performances clearly and correctly while they were reading the text.

8. It is difficult to apply Think-aloud protocols and the number of the sample is also a problem. The work of applying and deciphering think-aloud protocols is quite time consuming. Because this was carried out by a single person, the researcher, the number of the students participating in the study had to be kept small. This has limited the reliability and generalizability of the findings, and the validity of some of the claims put forward in the study. Thus, the study needs to be replicated with a much larger sample of students so that the quantitative data can be subjected to a more complete statistical analysis.

9. Only a small sample was selected for the research (26 from a population of 200). This has decreased the generalizability of the findings. The reason for this was that the inclusion of a large sample would decrease considerably the time and efforts to analyze the data to be obtained from Think-aloud protocols because each student would be interviewed at least for half an hour. Therefore, the inclusion of only one class has been preferred to facilitate the administration of the questionnaire, pretest, Think-aloud protocols, and posttest.

10. As a sampling method, random sampling was chosen. This might have affected the homogeneity of the sample negatively. The reason for this was that the researcher would not be able to interview all the first year students because sampling methods other than random sampling would include all the ten reading classes in the selection of the sample although such sampling methods could ensure homogeneity.

11. All the measurement instruments except for the texts were developed by the researcher. Thus, the quality of the data obtained has depended on the extent of the validity and reliability of these instruments although they were validated and made reliable in a group other than the sample.

12. The validity of the findings depends on the extent of the truth of the students' responses.

13. The findings of the present study are limited to the sample group (the first year students who participated in the research) at Gazi University Faculty of Education ELT department in the spring semester of the 2006 – 2007 academic year and the autumn semester of 2007 – 2008 academic year, and finally the data obtained from this sample.

CHAPTER II

2. REVIEW OF LITERATURE

2.1 HISTORICAL DEVELOPMENT OF THE THEORY OF READING COMPREHENSION

An important development in theories about reading comprehension took place in the 1970s. At that time, reading was viewed as a simple decoding process which involved finding information in the text. However, over the past forty years, this view of reading has changed considerably and incorporated many different aspects. For example, from that time on, reading comprehension has been regarded not as a passive and receptive process but as an active one which involves the reader in reading comprehension. Thus, reading has come to be seen as intentional thinking during which meaning is constructed through interaction between the text and the reader. According to this view, meaning is constructed by the reader's interchange with the text through intentional, problem solving, and thinking processes. The text and the reader's prior knowledge influence the construction of meaning. Reading comprehension is regarded as the construction of the meaning of a written text through a reciprocal interchange of ideas between the reader and the message in a particular text. The important theoretical idea in this view of reading comprehension is that the reader constructs meaning representations of the text as he reads, and that these representations are essential to memory and use of what is read and understood (Durkin, 1993).

2.2 CURRENT THEORIES OF SECOND LANGUAGE READING COMPREHENSION

Current views of second language reading focus on descriptions of interactive processes where reading involves the combination of bottom-up (text-driven) and top-down (knowledge-driven or reader-driven) strategies. According to this view, first, the reader turns the surface form of the text into underlying conceptual propositions. Second, he uses his world knowledge to identify the referents of the concepts in the text, recognizes linking expressions, and draws inferences to make causal relations among the action sequences of the text. In this way, the reader constructs a mental model or situation model. The bottom-up approach which depends on the decoding of syntax,

lexicon, and text structure informs the reader from a data point of view, and in the top-down approach, the reader interprets the text by incorporating his own background knowledge, assumptions, and sensitivities to inform himself from a knowledge perspective (Bernhardt, 1991).

2.2.1 Kintsch's Cognitive Theory of Reading Comprehension

According to Kintsch's (1998) cognitive theory of reading comprehension, the text can be represented in the mind at three levels of understanding. These are the linguistic level of representation, the conceptual level representing the meaning and structure of the text (the text base) and the integration of information from the text and from the reader's prior knowledge (the situation model). The three levels describe different aspects of a single representation. At the linguistic level, the text is stored in the mind literally. This superficial and verbatim text representation is temporary in nature because it disappears quickly from the memory. Also, Kintsch makes a distinction between 'remembering the text' which means correct reproduction of the text and 'learning from the text' which requires a deeper understanding so that the information which is provided in the text can be used in new situations and problems. To remember the text, it is sufficient to build a representation on the text base level which contains the gist of the text. However, to learn from the text requires the construction of a situation model, in which the information in the text has to be elaborated and integrated into the reader's prior knowledge and experience. At the conceptual level, it is assumed that the semantic content of the text is represented. The meanings of words, clauses, sentences, and their interrelationships are encoded and stored in the memory. The representation of semantic content in the form of propositions results in a propositional network or text base. This propositional network stays in the memory for a considerably longer time. At this level of representation, reading strategies support this process of meaning construction by activating prior knowledge, generating mental images of the text, clarifying difficult terms, summarizing important ideas, and asking oneself questions to make sure that the text is really understood. It is at this level of representation that much of the reading comprehension task is achieved through these strategies. Therefore, strategies like these are (or should be) taught in reading environments (Palincsar and Brown, 1984: 117-175; Dole et al., 1992: 239-264).

As the student needs to internalize strategic behavior, it can be helpful to categorize strategies into a simple schema in order to learn them easily. Based on the distinction between remembering the text and learning from the text, it is useful to make a distinction between strategies as organizing the text and helping to keep information in the mind (e.g., looking for main ideas, summarizing) and strategies as elaborating the text and promoting deeper understanding (e.g., forming mental images, activating prior knowledge). Whereas organization strategies give support to the construction of representation on the text base level, elaboration strategies promote the formation of a situation model. At the integration level, a representation of the situation which is described by the text is constructed. Together with the reader's prior knowledge of the subject of the text, textual information is integrated into a mental or situation model. It is similar to the representation which will result from directly experiencing the situation which the discourse describes. The information which is contained in a mental model representation is remembered best.

Furthermore, the structure of the ideas in the text is organized in terms of importance, which is typically described as the macro structure and micro structure (Van Dijk and Kintsch, 1983; Kintsch, 1998). The micro structure is a representation of all the information in the text, organized in terms of a list of propositions or meaning units in the order that they were presented in the text. On the other hand, the macro structure is organized hierarchically. In the macro structure, main ideas are prominent, generalizations are made, and the relationships between main ideas and subordinate ideas are represented. The macro structure is made up of the propositions which represent the theme or main idea of the discourse. It is constructed during comprehension by applying mental operations which are called macro rules to the micro structure of the textbase. For the macro structure to be built, the rules of selection, deletion, generalization and construction of propositions are applied. The reader's knowledge of the text topic and structure guides the application of macro rules by focusing attention on the important parts of the text. A complete macro structure looks like a good summary because it contains the main ideas and the relationships between them. A macro structure is the global meaning and the gist of discourse, which is formed using three macro rules: selection-deletion, generalization, and construction. The selection-deletion rule implies the selection of relevant propositions, elimination of irrelevant propositions, and deletion of repeated information. Generalization rule

requires the conversion of a set of terms or propositions into a more general term or proposition by replacing them with a super ordinate proposition. Construction rule is related to the construction of one most general proposition, which covers the gist of the whole text. These macro rules make possible for the reader to summarize the text which he reads or hears and to store the gist of the text in mind.

2.2.2 Goodman's Theory of Reading Comprehension

Another theory which tries to account for reading comprehension is Goodman's theory of reading (Goodman, 1967: 126-135). Goodman proposes that reading is a 'psycholinguistic guessing game' which involves continual hypothesis testing. Thus, the reader expects meaning from the print, samples and selects from a visual arrangement of the print based on his initial hypotheses. Then he confirms or disconfirms his predictions by using the knowledge of different language cue systems such as pragmatic, syntactic, semantic, and graphophonic when meaning breaks down.

According to this theory, reading is a cyclical process. Efficient reading does not result from the precise perception and identification of all the elements in a word, but from the skill in selecting the fewest, and most useful cues necessary in order to judge initial and re-formulated hypotheses. Visual, perceptual, syntactic, and semantic cycles are constantly in play, and each is dependent on the other and enables the others to function. Because meaning is the ultimate goal of the reading process, the reader does not have to complete the visual, perceptual, and syntactic cycles. Therefore, as opposed to bottom-up theories, comprehension does not depend on letter-word recognition and linear, accurate, automatic decoding.

Goodman (1967: 126-135), as a top-down theorist, puts comprehension at the center of the reading process – at the beginning of, during, and after the decoding of the text. Comprehension is described as a negotiation between the reader and the text, where meaning does not rest merely in the text nor only in the reader but in the interaction of the two, which is regarded as a third entity constructed by the reader.

2.2.3 Stanovich's Interactive Theory of Reading Comprehension

However, Stanovich (1980: 360-407) suggests an interactive theory of reading which acknowledges the joint effect of different levels of knowledge and skills. The two

levels of knowledge are data-driven sensory information and nonsensory information (e.g., semantic knowledge) which function in interaction with each other. Accordingly, the reader focuses on comprehension and mechanical features of the text (e.g., letters) roughly at the same time. The interactive models have compensatory features because it is presumed that children capitalize on their strengths in order to compensate for deficiencies in other skills. It is hypothesized that a process at any level can compensate for deficiencies at any other level. For example, a child may attend to more contextual clues (a higher-level knowledge source) if he has weak decoding skills (a lower-level process); conversely, it is also possible that a child with a limited higher-level knowledge (e.g., little background knowledge) relies more on sensory information. However, interactive models also take into account bottom-up processing models because such models assume that the reading event begins with graphic input and that automatic word recognition facilitates comprehension.

2.2.4 Smith's Theory of Reading Comprehension

Smith (1971: 94)) describes a significant aspect of reading; that is, reading in larger units. The reader will not be able to read fast enough if he reads letter by letter. By the time he has reached the end of one word, he will have forgotten what he has read earlier because he cannot hold more than four or five items in his short-term memory. Therefore, it is only by reading in larger units that the limited capacity of the system can be overcome. According to this theory of reading comprehension, the skilled reader needs very little visual information to identify the words as his brain is able to take efficiently what he needs from the text and focuses on the context. On the other hand, the unskilled reader might be more inclined to confuse words and struggle with building a meaningful context. The unskilled reader is still at the stage of word identification, and he is far from reading in meaningful larger units. Thus, whereas the skilled reader employs a top-down approach to reading, the unskilled reader gets by with a bottom-up approach, which is alone insufficient to achieve a comprehension task.

2.3 ROLE OF PRIOR KNOWLEDGE IN READING COMPREHENSION

Within the above definition and aspects of reading, it is mentioned that the reader needs content and background knowledge along with linguistic knowledge to comprehend what he reads. Thus, background knowledge is prerequisite to

comprehension. How this background is stored and represented in the memory helps to understand how the comprehension process is achieved. For this reason, one cannot find meaning resting in the text by itself, but it is the reader, the text and his prior knowledge, which interact to understand the text and to extract the intended message. Meaning is only possible when the contents of the text and reader's prior knowledge are matched and interact in certain ways.

While reading the text, there may also be problems of not being able to activate prior knowledge. There may be two reasons for the difficulties occurring in the activation of background knowledge: (a) the reader may not have adequate background knowledge related to the content, or (b) enough clues may not be provided in the text to enable the reader to use his prior knowledge (Carrell and Eisterhold, 1983: 553-573; Carrell, Pharis, and Liberto, 1989: 647-678). In addition, because the reader may not have sufficient background knowledge about the content and the rhetoric of the text due to his cultural background, activating schemata may cause difficulties in an L2 context (Carrell, 1987: 461-483; Silberstein, 1994: 6-7).

There are three theories of how background knowledge is stored and represented. These are schemata, frame, and script theories. These theories are relevant to reading, and they account for how knowledge is gained, stored, and accessed in the mind. After these theories, and the top-down and bottom-up approaches will be expanded on. These approaches explain how the reader processes what he reads. The elaboration of the theories and approaches will shed light on what happens in the process of reading, and what underlying factors are at work to comprehend the text. These theories and approaches will be discussed below respectively.

2.3.1 Schemata Theory

People are exposed to events in the world, and they store these events in our minds. As this exposure goes on, they make assumptions about events in the world. These assumptions depend on what they have experienced and how their minds have organized the knowledge they have got from their experiences. Thus, schemata theory accounts for what these assumptions are and how they are formed. A schema is a mental structure. It is abstract because it does not relate to any particular experience although it derives from all the particular experiences people have had. In other words, people tend

to generalize similar experiences and store in their minds the common properties of such experiences. For this reason, their schemata are their classification of the common properties of similar experiences. A schema is a structure because it is organized, and it comprises the relationships between its component parts.

The role of schemata in reading becomes obvious because the way people interpret depends on the schemata activated by the text. Whether people interpret successfully depends on whether their schemata are sufficiently similar to the writer's. That is, the more they have in common with the writer in terms of the assumptions they share, the better they comprehend the text (Nuttall, 1996: 7-8). The role of schemata in reading comprehension can be illustrated with an example based on the following short text by Thurlow and Paul (1997: 4):

‘Toby wanted to get Chris a present for his birthday. He went to his piggy bank. He shook it. There was no sound.’

A full understanding of this short story requires that the reader knows the following content schemata which are suggested by the thesis writer:

- People buy presents for their relatives or friends for their birthdays.
- Since Chris is mentioned in the text, he could be a relative or a friend.
- People do not buy presents for people whom they do not know.
- Piggy bank is a box in the shape of a pig where money is saved.
- Children use piggy banks.
- Therefore, Toby is a child too.
- Toby's going to his piggy bank shows that he needs money to buy a present and that he is going to take out some money.
- His shaking the bank shows that he keeps coins, but not banknotes.
- Since coins are kept in this bank, one can understand whether there is money inside it by shaking it because coins make a sound when the bank is shaken.

- The sentence 'There was no sound' means there are no coins inside and the bank is empty.

- If there are no coins, Toby will not probably be able to buy a present.

As this simple, short text illustrates, people have a set of schemata about events in the story and they utilize these schemata to make sense of the text. Unless they have these relevant schemata about the text, it is impossible to comprehend it, and the sentences stand on their own as meaningless units. Therefore, people make use of their schemata to comprehend the text.

A significant point about schemata is made by Thurlow and Paul (1997: 2-4). According to them, the activation of relevant schemata is automatic. As people begin to read the above story, their relevant schemata are activated automatically and subconsciously even if they are not aware of this during reading. Another significant property of schemata is that they are dynamic, not static. New experiences are constantly incorporated into people's schemata. If new experiences are congruent with the existing schemata, they are incorporated; if they are contradictory, they are deleted. As a result, their existing schemata change and grow throughout their lives as they learn from former experiences, new experiences and new reading materials. Furthermore, there may be problems for the reader who does not share the relevant schemata because the writer will not get into every detail which he assumes is already in the reader's mind. Therefore, the reader is left with very little information to make sense of the text. If he fails, either he does not have the schemata at all, or his schemata are significantly different from the writer's (Nuttal, 1996: 7-8). With respect to problems in shared assumptions, she points out to a significant fact that people can never understand one another completely.

With an exception in scientific writing, complete overlap in understanding is impossible because all people, however much they have in common have different experiences which make them perceive and see things differently. Even if this is the case, one purpose of reading is to understand other people's ideas. There would be no point in communication if people were all identical (Nuttal, 1996, 10).

2.3.2 Frame Theory

The frame theory also explains how background knowledge is used in order to understand the text. Minsky (1975) proposes that knowledge is stored in the memory in

the form of data structures which are called frames and which represent stereotyped situations. Thus, when people encounter a new situation, they select from the memory a structure called a frame. This is a remembered framework to be adapted to fit reality by changing details as necessary. For example, a house represents a frame. Furthermore, the basic structure of a frame contains labeled slots to be filled such as living room, kitchen, bathroom, address and the like. A particular house which exists in the world, or which is mentioned in the text can be treated as an example of a house frame, and can be represented by filling the slots with the particular features of that individual house. Therefore, a frame is characteristically a fixed representation of knowledge about the world, and it is organized data structures in the memory which represent stereotyped situations. For this reason, a new situation (written or spoken) is understood based on this framework to fit it to reality by making additions to or changes in details as necessary.

2.3.3 Script Theory

A script is similar to the frame theory. However, it specially deals with event sequences (Schank and Abelson, 1977). The script concept was used by Abelson to investigate the relationship between attitudes and behaviors; however, when it is applied to text understanding, it analyzes language understanding as conceptual dependency. By the notion of conceptual dependency, the meanings of sentences are represented in conceptual terms for any sentence by providing a conceptual dependency network. For example, let us consider the following sentences to see how conceptualization underlies sentence A_1 :

a_1) John ate the ice cream with a spoon.

a_2) John ingested the ice cream by transing the ice cream on a spoon to his mouth.

In his conceptual version (a_2) of sentence (a_1), Schank represents a part of our understanding of the sentence which is not explicit in sentence (a_1). The action described in (a_1) is made possible by getting the ice cream and his mouth in contact. Thus, Schank incorporates an aspect of our knowledge of the world in his conceptual version of our understanding of sentence (a_1), which would not be possible if his analysis operated with only the syntactic and lexical elements in the sentence. Also,

Reisback and Schank (1978) argue that our understanding of what we read or hear is very much expectation-based. That is, when we read the following example, we have very strong expectations about what conceptually will be in the X position.

John's car crashed into a guard-rail.

When the ambulance came, it took John to the ...X... .

They point out that our expectations are conceptual rather than lexical, and that different lexical realizations in the X position (For example, hospital, doctor, medical center, and the like) will all fit our expectations.

2.3.4 Top-Down and Bottom-Up Approaches to Reading Comprehension

These two approaches are complementary ways of processing the text. They are both utilized when people read the text. Sometimes one predominates; sometimes the other. However, both are needed in reading comprehension. Although these two approaches are unconsciously applied during reading, both can be adapted as conscious strategies by the reader approaching a difficult text (Nuttal, 1996: 16-17).

In processing the text in a top-down fashion, people depend on their intelligence, experience and the predictions which they can make based on the schemata which they have acquired to understand the text. This kind of processing is used when people interpret assumptions and draw inferences. It is used consciously to see the overall purpose of the text, or get a rough idea of the pattern of the writer's argument in order to make a reasoned guess at the next step. Thus, having an idea of what something might mean can be a great help in interpreting it. An analogy of an eagle's eye view of the landscape explains this approach better. From a great height, the eagle can see a wide area spread out below; it understands the nature of the whole terrain, its general pattern and the relationships between various parts of it far better than an observer on the ground. Thus, the reader adopts an eagle's eye view of the text when he considers it as a whole and relates it to his own knowledge and experience. This makes it possible for him to predict the writer's purpose, the likely trend of the argument and similar features, and then he uses this framework to interpret difficult parts of the text. In conclusion, the top-down approach gives a sense of perspective and makes use of all that the reader brings to the text: prior knowledge, common sense, and the like (Nuttal, 1996: 16-17).

In processing the text in a bottom-up fashion, the reader builds up meaning from the print on the page. He recognizes the letters and words, and works out sentence structure. It is made use of consciously when initial reading is confusing. Sometimes, people cannot understand the writer's message. This happens if their world knowledge is inadequate, or if the writer's point of view is very different from their own. In this case, people must scan the vocabulary and syntax to make sure they have grasped the literal meaning correctly. Thus, bottom-up processing can be used as a corrective tunnel vision which means seeing things only from people's own limited point of view. To illustrate bottom-up processing, an analogy of a scientist examining the ecology of a landscape can be used. The scientist develops a detailed understanding of one little area (which might represent a sentence in the text); however, full understanding comes only if this is combined with knowledge of adjacent areas and the wider terrain so that their effects on one another can be recognized. Therefore, top-down and bottom-up approaches are complementary processes (Nuttal, 1996: 17).

2.3.5 Interaction of Top-Down and Bottom-Up Processing

It is necessary to understand literal meaning in order to comprehend the text. However, in practice, the reader continually shifts from top-down to bottom-up processing. He adopts a top-down approach to predict the probable meaning, and then moves to the bottom-up approach to check whether that is really what the writer says. This is known as interactive reading. Both approaches can be utilized by conscious choice, and both are important strategies for readers (Nuttal, 1996: 17). The successful reader uses both bottom-up and top-down strategies simultaneously according to their changing purposes and the difficulties occurring during his reading processes. However, research has revealed that as opposed to his successful peers, the less successful reader generally tends to rely more on bottom-up strategies (Block, 1992: 319-343; Salataci and Akyel, 2002: 1-16). Thus, the less successful reader cannot make use of the strategies interactively, and he needs to be provided with strategy instruction.

We have discussed the theories and approaches of reading comprehension. These theories and approaches account for how knowledge is acquired, stored and accessed in the mind. They also contribute to our understanding of what happens in the process of reading, and what underlying factors are at work to comprehend the text. In the next section, definition of reading and reading strategies will be given.

2.4 DEFINITIONS OF READING COMPREHENSION AND READING COMPREHENSION STRATEGIES

Various theories of reading comprehension have been described above, which account for the underlying processes of reading. Now, in order to elaborate on and understand the comprehension process better, different definitions of reading comprehension and reading comprehension strategies are given below by different scholars, who emphasize different aspects of reading. All these definitions provide invaluable insights about the nature of reading.

Reading comprehension is defined as constructing a mental representation of textual information and its interpretation, or, in other words, as extracting meaning from written words, sentences, and texts (Aarnoutse and Van Leeuwe, 2000: 251-278). Despite the apparent simplicity of this definition, reading is quite a complex process. Cognitively-based views of reading comprehension emphasize that proficient reading requires much more than just word-, phrase-, or sentence-level processing. Because reading is the process of decoding meaning from printed visual signs, the reader must first recognize a multiplicity of linguistic signals in a hierarchical fashion. These linguistic signals are letters, morphemes, syllables, words, phrases, clauses and sentences. Then he uses his linguistic data processing mechanisms to impose an order on these signals. However, this processing requires a sophisticated knowledge of the language itself. For this reason, he builds up meaning from these linguistic signals by recognizing them and imposing a hierarchical order between and/or among these linguistic signals. However, this is one side of reading. The other side is how the reader constructs meaning. The text does not by itself carry meaning. Thus, the reader brings information, knowledge, emotion, experience and culture to the printed signals. It is the reader who contributes more information to the text than the printed signals on a page. That is, he understands what he reads by combining, matching and interacting in particular ways the printed signals on the page and the concepts which are already stored in his memory. Thus, skill in reading depends on the efficient interaction between linguistic knowledge and knowledge of the world (Goodman, 1967: 126-135; Clarke and Silberstein, 1977: 136-137).

In connection with this definition of reading, Grabe (1991: 375-406) summarizes some aspects of the reading process as follows:

(a) Automatic Recognition Skills: The reader needs to be able to automatically identify words and grammatical forms. (b) Vocabulary and Structural Knowledge: It is a characteristic of the fluent reader to possess a large receptive vocabulary and knowledge of syntactic and rhetorical structure. (c) Content and Background Knowledge: Text-related and cultural knowledge is important to comprehend texts. Such knowledge needs to be provided or accessed if the text is to be read effectively. (d) Synthesis and Evaluation Skills and Strategies: The reader needs to synthesize information and anticipate the author's perspective. Through these processes, textual information is compared with prior knowledge to evaluate the content of the text. (e) Metacognitive Knowledge and Skills Monitoring: The reader must be aware of his goals and his choices of strategies to achieve comprehension.

Another definition of reading is offered by Anderson, Hiebert, Scott and Wilkinson (1985). They define reading as a process of constructing meaning from written texts by coordinating a number of interrelated sources of information. Accordingly, as the reader reads through the text, he generates inferences when he activates information which is not explicitly stated in the text in order to connect ideas within it and fill in details. By generating these inferences, the reader constructs text representations which are integrated and coherent (Cain and Oakhill, 1999: 489-503). For example, research on inference generation shows that the skilled reader is good at making inferences when necessary while the less skilled reader generates fewer inferences than his skilled peers (Oakhill, 1982: 13-20, 1984: 31-39; Graesser, Singer, and Trabasso, 1994: 371-395).

When this brief definition of reading comprehension is considered, it is seen that inferencing plays a significant role in making a piece of text coherent and meaningful and understanding it. Because meaning does not come out of the text by itself, it is necessary to interconnect the propositions in the text in a hierarchical and meaningful manner so that comprehension can take place. This making of interconnections is realized by inferencing.

Reading strategies are defined as conscious mental activities and flexible plans which enable the reader to construct meaning from a variety of texts and tasks (Grabe and Stoller, 2002). Some examples of the strategies commonly used by strategic readers are previewing the text, predicting what will come later in the text, summarizing,

learning new words through the analysis of word stems and affixes, recognizing the text organization, generating appropriate questions about the text, clarifying the text meaning, using the context to maintain comprehension, and repairing miscomprehension.

Another definition proposed by Barnett (1988: 150-162) considers reading strategies as the mental operations involved when the reader approaches the text effectively and makes sense of what he reads. Some examples of problem solving techniques are skimming, scanning, reading for meaning, predicting, activating general knowledge, making inferences, separating main ideas from supporting details, recognizing cognates and word families, guessing word meanings from context and evaluating those guesses, and following references.

Reading strategies are conscious actions which the learner takes to accomplish a language task. According to this definition, reading strategies can be described as special tactics or moves which the learner consciously uses to accomplish reading tasks. Thus, reading strategies cover how the reader thinks of a reading task, what textual clues he considers, how he understands what he has read, and what he does when he does not understand the text (Farrell, 2001: 631-635).

Another definition of reading comprehension strategies is offered by Garner (1987: 50). He defines reading strategies as generally deliberate, planful activities which are undertaken by an active learner, many times to remedy perceived cognitive failure, and facilitate reading comprehension.

Despite the different definitions of reading comprehension strategies as offered by different scholars, there is no definition of reading strategies on which scholars agree. Therefore, the definition of reading strategies is controversial. The first of these controversies is due to the difficulty of clearly differentiating reading strategies and other cognitive processes like thinking, reasoning, perceptual, study, or motivational strategies. The second controversy is related to the breadth of reading strategies as global or specific because it is not easy to distinguish these strategy types as they are all complicated thought processes which occur in different sequences. The third problem involves the notion of deliberate or unconscious application of reading strategies. Related to this problem, there are two distinct views. The first view suggests that

strategic behaviors should be considered as deliberate actions because awareness is required in the application of reading strategies. On the other hand, according to the second view, only the unintentional use of strategies can result in the best reading process (O'Malley and Chamot, 1990; Cohen, 1998; Urquhart and Weir, 1998).

Also, a significant problem is the difficulty of differentiating the taxonomies of skills and strategies. They are considered identical terms in some sources while in some others, they are defined separately (Urquhart and Weir, 1998). Skills refer to information-processing techniques which are automatic, whether they are at the level of recognizing grapheme-phoneme correspondence or summarizing a story. Skills are applied to the text unconsciously for many reasons through expertise, repeated practice, compliance with directions, luck and naive use. In contrast, strategies are actions selected deliberately to achieve particular goals. According to (Cohen, 1990: 83; 1996: 6), a skill is an overall behavior while a strategy is a specific means in order to realize that behavior. If a learner's behavior is completely unconscious and if he is not able to identify any strategies associated with it, then the behavior will simply be referred to as a process, not a strategy. Anderson (2003: 4) states that the difference between skills and strategies is usually due to the automation of the process. Thus, a strategy becomes a skill if it is used automatically. In other words, a skill is a strategy which has become automatic.

As another criterion to make a distinction between skills and strategies, Urquhart and Weir (1998) propose that strategies are reader-oriented while skills are text-oriented. In this respect, skills emphasize only textual features whereas strategies are the reader's own conscious tactics to answer his needs due to the probable problems occurring during the reading process.

According to the results of different studies on reading comprehension, the following strategies are seen as essential for the reading process to be effective (Aarnoutse and Schellings, 2003: 391):

1. Determining a reading objective; activating and using one's own knowledge with regard to the content of the text,
2. Drawing connections or relations between words, sentences and paragraphs, predicting information and creating representations,

3. Exploring the nature and structure of different types of texts,
4. Discovering the theme and the main ideas in the text along with a summary,
5. Posing and answering one's own questions,
6. Planning, steering, monitoring and correcting one's own reading behavior,
7. Evaluating texts for their value, and
8. Reflecting on the reading activities which have been executed and their results.

2.5 STRATEGIC READING COMPREHENSION

There is a relationship between the reader's successful second language reading comprehension and control of a wide and flexible repertoire of strategies. The student's awareness of strategy alternatives may not be enough for him to be successful in reading because he needs to know why and how to use these strategies effectively. Furthermore, strategic reading is not only a matter of knowing what strategy to use. However, the reader must know how to use a strategy successfully, and operate its use in harmony with other strategies. Also, it is not sufficient to know the strategies, so the reader must also be able to apply them strategically. Although a less successful reader may be able to identify his own strategies, he usually lacks knowledge of using them appropriately and linking them into a useful strategy chain (Anderson, 1991: 460-472; Green and Oxford, 1995: 261-297).

A significant type of strategic behavior necessary for successful reading and academic achievement is strategic reading. The reader actively constructs meaning while reading by using different strategies such as identifying main ideas, integrating information across the text, connecting textual information with previous knowledge and generating inferences. It has been found that the reader who uses reading strategies efficiently, and who perceives that he uses reading strategies more frequently understands the text better and has higher academic achievement. Reading strategies are particularly important for text comprehension when familiarity with the text is low. Studying at the college level typically requires reading and learning from challenging academic texts (Taraban, Rynearson and Kerr, 2000: 283-308).

Certain studies in L1 and L2 contexts show that the level of metacognitive awareness of students is a potentially effective factor for effective and successful reading. Successful reading strategy use is dependent on whether a strategy is employed metacognitively. This partly accounts for the fact that the less successful reader does not often lack cognitive strategies, but fails to access them metacognitively. Also, successful use of reading strategies is largely dependent on the awareness of, and flexibility in, the use of these strategies according to the purpose of the task or the problem to be solved (Carrell, Pharis and Liberto, 1989: 647-678; Carrell, 1998).

However, making the student become aware of his own reading comprehension processes cannot be realized in a short time. In other words, the student cannot be made to become strategic in a week or a month. Teachers who helped students learn to become strategic readers often say that this process is work intensive and time consuming on the part of teachers and students alike. Therefore, it is not easy for teachers to develop the reader's conceptions about what it means to be strategic. It takes considerable time and continuous monitoring to evolve the reader into becoming a good strategy user. Strategic reading requires strategic teaching, and skilled reading requires constructive teaching of reading. Some experts in the field of reading estimate that it takes several months, perhaps as long as one year or more, for a student to become a strategic reader (Pressley and Afflerbach, 1995).

One can think that the student actually uses the strategies which he reports in a reading strategies instrument. However, there is no guarantee that he actually uses them in texts. In other words, the student's positive responses to the items in an instrument may indicate that he knows about or is aware of those strategies. However, awareness or knowledge of strategies does not guarantee that he actually uses them. He must also be able to fit strategies according to his needs and difficulty and type of the text, and monitor the use of such strategies to ensure success in reading comprehension.

2.6 READING COMPREHENSION MONITORING

Comprehension monitoring is the conscious control of ongoing comprehension in order to accurately assess understanding and detect a comprehension failure. Monitoring, which is a metacognitive process, is related to successful performance. Monitoring refers to the student's online awareness of reading comprehension process

and achievement. That is, every single moment, whatever is read, has to be consistent to criteria which the reader has in mind. Those consistency criteria could be lexical ones, that is, every word has to be consistent to the text context, internal ones, that is, two sentences of the text have to be consistent with each other, external ones, that is, every sentence has to fit with reality or the text context, grammatical ones, that is, all text words have to be grammatically right, syntactical ones, that is, all sentences have to be syntactically correct, and finally the structural consistency of the text (Garner, 1980: 55-63; Baker and Anderson, 1982: 281-294; Schraw, 1994: 143-154).

Reading for comprehension involves metacognitive monitoring by verifying the success or notifying failure during the flow of comprehension. Because monitoring of reading comprehension is proposed to be a crucial part of the reading process, it is obvious that the student who does not monitor his reading, or does it in a non-efficient way cannot bridge a comprehension gap and remedy the difficulties in the text (Baker, 1984: 588-597).

Instruction of comprehension monitoring involves teaching the reader to become aware of when he does understand, to identify where he does not understand, and to use appropriate fix-up strategies in order to improve comprehension when it is blocked. However, the reader does not spontaneously select comprehension strategy awareness. This instruction strategy involves constant monitoring of comprehension to identify problems in the text such as noticing comprehension blocks and remedying them by employing appropriate strategies. Comprehension monitoring training is intended to provide the reader with steps which he can take to resolve reading problems as they arise. Steps may include formulating what the difficulty is, restating what was read, looking back through the text, and looking forward in the text for information which might help to resolve a problem (Bereiter and Bird, 1985: 131-156).

Comprehension monitoring covers a variety of activities such as establishing a purpose for reading, modifying actions to suit this purpose, evaluating text clarity, completeness, and consistency, compensating for miscomprehension, assessing one's level of comprehension accessing, devising strategies to allocate time and effort, monitoring the effectiveness of strategies, paraphrasing, self-questioning, and paying close attention. Especially, paraphrasing is important to determine whether or not understanding has occurred (Baker, 1984: 588-597).

2.7 DEFINITIONS OF METACOGNITION

Research consistently demonstrates that metacognition plays rather a significant role in reading. The term metacognition is most frequently associated with John Flavell (1979: 906-911). According to Flavell (1979: 906-911), metacognition consists of both metacognitive knowledge and metacognitive experiences or regulation. Metacognitive knowledge refers to acquired knowledge about cognitive processes and knowledge which can be used to control cognitive process. This knowledge falls into three categories: (a) knowledge of personal variables (general knowledge about how human beings learn and process information), (b) knowledge of task variables (knowledge about the nature of the task as well as the type of processing demands which it will place upon the individual), and (c) knowledge of strategy variables (knowledge about both cognitive and metacognitive strategies).

Hyde and Bizar (1989: 51) define metacognitive processes as those processes in which an individual carefully considers thoughts in problem solving situations through the strategies of self-planning, self-monitoring, self-regulating, self-questioning, self-reflecting, and or self-reviewing. Metacognition involves having knowledge (cognition) and having understanding, control over, and appropriate use of that knowledge in order to control cognitive activities, and to ensure that a cognitive goal (e.g., understanding a text) has been met. It also involves both conscious awareness and conscious control of one's learning. Metacognitive skills include taking conscious control of learning, planning and selecting strategies, monitoring the progress of learning, correcting errors, analyzing the effectiveness of learning strategies, and changing learning behaviors and strategies when necessary (Ridley, Schutz, Glanz and Weinstein, 1992: 293-306).

Metacognition in reading refers to one's awareness of the purposes and goals of reading as well as the strategies which contribute to comprehension. As the learner develops from a beginner to an expert, this change is accompanied by the acquisition of two types of knowledge: declarative and procedural. Similar to metacognitive knowledge and metacognitive experiences, declarative knowledge is knowledge about a person, task, and strategy, and includes suppositions about task structure, task goals (e.g., story structure), and beliefs about the task and one's abilities. Procedural knowledge is the how of a task (e.g., knowing how to skim, how to scan, how to summarize). The reader knows the steps to take to execute an action such as skimming.

A third type of knowledge necessary for strategic reading is the conditional knowledge, which includes knowledge of when and why to apply various actions, which is beyond just being told to follow instructions by the teacher. This conditional knowledge, when combined with declarative and procedural knowledge, allows for changing behaviors according to the demands of the task (Paris, Lipson and Wixson, 1983: 293-316).

2.8 SIGNIFICANT ROLES OF METACOGNITION

A significant role of metacognition is that it promotes academic learning and motivation. The student can enhance his learning by becoming aware of his own thinking as he reads, writes, and solves problems at school. The teacher can promote this awareness by simply informing the student about effective problem-solving strategies and discussing cognitive and motivational characteristics of thinking. This type of consciousness-raising has two significant benefits: (a) it transfers responsibility from teachers to students themselves to learn monitoring, and (b) it promotes positive self-perceptions and motivation among students. In this manner, metacognition provides personal insights into one's own thinking and fosters independent learning (Paris, Lipson and Wixson, 1983: 293-316).

Another role of metacognition is to make the student autonomous. As the student becomes more skilled at using metacognitive strategies, he gains confidence and becomes more independent as a learner. Independence leads to ownership as the student realizes that he can meet his own intellectual needs and that he can solve problems by himself. Thus, the task of educators is to acknowledge, cultivate, exploit and enhance the metacognitive capabilities of all learners (Paris, Lipson and Wixson, 1983: 293-316).

Also, metacognition helps the student to become an active learner. The student must synthesize the knowledge of literal facts with critical/creative thinking, organize and regulate his thinking processes. When the student is cognitively aware that the data which he receives is incomprehensible, he then purposefully begins to redirect his thinking and attempt another self-chosen learning strategy or combination of strategies. In this way, he becomes an active participant in his learning (Flavell, 1979: 906-911; Hartman, 1997; Pressley and Allington; 1999: 1-35).

Although instruction of metacognition is crucial for successful comprehension, instruction alone is not sufficient to improve and facilitate successful reading comprehension. Therefore, an essential component of metacognition is the ability to regulate one's own cognitive processes. Several cognitive strategies such as defining, describing, comparing, summarizing and thinking of possible solutions to problems are identified as being essential to student success. However, these strategies do not become metacognitive unless the student understands what their possible usefulness is, where, when and how to engage in them (Flavell, 1979: 906-911; Hartman, 1997; Pressley and Allington; 1999: 1-35).

Moreover, metacognition in reading comprehension requires the awareness of the learner of his own characteristics, which can be considered as a crucial component of metacognitive skills and strategies, and which makes a student a strategic reader. Some of these characteristics are background knowledge, degree of interest, skills, and deficiencies. The awareness of the learner can be considered as a crucial component of metacognitive skills and strategies, and it makes the student a strategic reader.

2.9 METACOGNITIVE READING COMPREHENSION STRATEGIES

Metacognitive strategies lead the reader to think about his thinking, and they are used for planning for reading, monitoring comprehension and production while reading is taking place, and self-evaluation after reading. According to Brown (1994: 115), metacognitive strategies cover such strategies as checking the outcome of any attempt to solve a problem, planning one's text move, monitoring the effectiveness of any attempted action, testing, revising, and evaluating one's strategies for learning. In other words, metacognitive strategies are used to plan, monitor and regulate reading as it occurs. Furthermore, the use of metacognitive strategies contributes much to understanding the meaning of the text. Simply decoding words is not sufficient; therefore, reading will be more effective if the reader employs metacognitive strategies which lead to monitoring his comprehension of the text. The studies conducted on the effects of metacognitive strategies on reading in a second language show that training in metacognitive strategies results in more successful reading because the reader learns to adjust appropriate reading strategies to different reading texts (Carrell, Pharis, and Liberto, 1989: 647-678; Shih, 1992: 289-318; Block, 1986: 463-494 and 1992: 319-342).

Some examples of metacognitive strategies are as follows (Anderson, 1999):

1. Setting goals for yourself to help you improve areas which are important to you.
2. Working with classmates to help you develop your reading skills.
3. Taking opportunities for practicing what you already know to keep your progress steady.
4. Evaluating what you have learnt and how well you are doing to help you focus on your reading.
5. Making lists of relevant vocabulary to prepare for new reading.

2.10 VARIABLES OF METACOGNITION FOR READING COMPREHENSION

Armbruster et al. (1983) enumerate some variables of metacognition for reading comprehension. The first variable, text, refers to the textual features of materials which influence comprehension and memory. Factors such as arrangement of ideas in the text, vocabulary, syntax, clarity of author's intentions, and reader's interest and familiarity with the text all have an effect on the student's comprehension. Noteworthy findings from research focus on three basic points: (a) text structures influence reading even if the learner is unaware of their effect, (b) knowledge of the effect of text structures on reading is dependent on age and ability; and (c) the reader can optimize reading by becoming aware of text structures.

The second variable of metacognition in reading is related to the task which the reader is required to perform. For example, locating a specific detail in the text requires a different process than that needed to write a critical analysis of the text. As with other aspects of metacognition, mature and immature learners differ with respect to their knowledge of, and ability to control, task variables. Extraction of intended meaning from the text is fundamental to any task in reading. Thus, in order for comprehension to occur, the student must be aware that the purpose of reading is to construct meaning, and he must learn how to adapt reading behavior to specific tasks.

The third variable of metacognition involves knowing how to remedy comprehension failures. It is not enough to be aware of one's understanding or failure to understand; however, the learner must be able to self-regulate his reading process in order to read for comprehension. Thus, the reader needs knowledge about metacognitive strategies.

The fourth variable of metacognition in reading is the awareness of the learner's own characteristics such as background knowledge, degree of interest, skills, and deficiencies, and the awareness of how these affect learning. Therefore, the reader must be able to utilize his awareness of his own characteristics in order to make favorable a change in reading behavior. Research suggests that the successful student tends to relate information in the text to previous knowledge; however, the less successful student shows little tendency to use his knowledge to clarify the text at hand. For example, knowledge of text structure is critical to reading successfully. By detecting the organizational patterns or structures of the text, the student can observe how the author arranges ideas and determines which kinds of structures are used to interrelate ideas.

The fifth variable concerns linguistic proficiency. The student is to have mastered linguistic proficiency and basic skills in reading before cognitive and metacognitive strategies are taught. Basic skills in reading comprehension must be strengthened in addition to (or before) attempting to strengthen cognitive and metacognitive strategies. No matter how effectively all the metacognitive and cognitive skills are taught, equipping students with sufficient linguistic proficiency is a precondition which must be fulfilled. In other words, if the student does not possess adequate knowledge sources, tactics or strategies will fail because one cannot use something if he does not have it. Therefore, in an EFL teaching environment, the teacher should pay great attention to enhancing the student's language proficiency before the intervention of strategy instruction. According to Winne (1995: 173-187), the teacher should emphasize the importance of strategy use in a purposeful manner. If the student does not have adequate language proficiency before metacognition instruction, there will be too much load on his cognitive system. Therefore, too early engagement metacognition instruction may damage reading performance, especially for less successful readers.

The final variable is multiple strategies. In other words, strategies should not be taught separately, but in combination with others. Unfortunately, in many of the studies, a particular strategy is taught to a group of students while reading. These studies show that the reader can learn a strategy and use it effectively in improving his comprehension. However, reading strategies are not independent of the others, and one of them alone cannot contribute to comprehension. Therefore, reading requires the coordinated and flexible use of several different kinds of strategies. Considerable success has been found in improving comprehension by instructing students on the use of more than one strategy during the course of reading. Skilled reading involves an ongoing adaptation of multiple cognitive processes (National Reading Panel Report, 2000). Therefore, if becoming an independent, self-regulated, and thinking reader is the goal, then the instruction of text comprehension should emphasize the teaching of multiple strategies rather than a single strategy because strategies themselves could be said to be hierarchically organized.

2.11 COGNITIVE READING COMPREHENSION STRATEGIES

Cognitive strategies are planned ways to obtain specific goals or results. Williams and Burden (1997: 148) state that cognitive strategies are seen as mental processes directly concerned with the processing of information in order to learn; that is, to obtain, store, retrieve or use information. They are more limited to specific learning tasks and involve direct manipulation or transformation of reading materials throughout a reading comprehension task. Also, they guide the student as he attempts to read.

Cognitive strategies in reading comprehension instruction are significant for three reasons. First, they are useful in the development of instructional procedures. Second, the learning of these procedures by the student aids him in his reading and learning. Finally, the reader becomes independent of the teacher, and gains autonomy (National Reading Panel Report, 2000).

Cognitive reading strategies are widely employed by the second language reader and have a direct operation on the target language. Also, they have a great importance in second language reading because the use of such strategies results in better reading performance and helps the reader overcome miscomprehension during the reading of

the text. The general finding about cognitive reading strategies instruction is that when the reader is given cognitive strategy instruction, he makes more gains on reading comprehension compared to students trained with conventional instruction procedures (Rosenshine and Meister, 1994: 479-530; Rosenshine, Meister and Chapman, 1996: 181-221).

Instruction of reading comprehension strategies is a way for the teacher to break through the student's passivity and involve him actively in his own learning. Instruction of cognitive strategies which are employed during reading consists of the following typical characteristics (Palincsar and Brown, 1984: 117-175; Pressley et al., 1994: 5-19):

1. Developing an awareness and understanding of the reader's own cognitive processes which are responsive to instruction and learning.
2. Guiding the reader or modeling for the reader the actions which he can take to enhance the comprehension processes which are used during reading.
3. Practicing those strategies with the teacher assisting until achieving a gradual internalization and independent mastery of those processes.

The most common cognitive strategies in the literature are as follows:

1. Using the titles to predict the text content
2. Relating the pictures/illustrations to text content
3. Skimming
4. Using background knowledge for text comprehension
5. Consulting a dictionary
6. Taking notes
7. Translating
8. Rereading
9. Summarizing

10. Visualizing
11. Understanding organization
12. Classifying words
13. Guessing the meanings of unknown words.

Mokhtari and Reichard (2002: 249-259) separate cognitive strategies into three categories: global reading strategies, problem solving strategies, and support reading strategies.

A. Global Reading Strategies

1. Setting purpose for reading
2. Activating prior knowledge
3. Checking whether text content fits purpose
4. Predicting what the text is about
5. Confirming predictions
6. Previewing the text for content
7. Skimming to note text characteristics
8. Making decisions in relation to what to read closely
9. Using context clues, using text structure
10. Using other textual features to enhance reading comprehension.

B. Problem Solving Strategies

1. Reading slowly and carefully
2. Adjusting reading rate
3. Paying close attention to reading

4. Pausing to reflect on reading
5. Rereading
6. Visualizing information read
7. Reading the text out loud
8. Guessing meaning of unknown words.

C. Support Reading Strategies

1. Taking notes while reading
2. Paraphrasing text information
3. Revisiting previously read information
4. Asking self questions
5. Using reference materials as aids
6. Underlining text information
7. Discussing reading with others
8. Writing a summary of the text.

2.12 KNOWLEDGE SOURCES UTILIZED AS STRATEGIES

According to the literature on reading strategies, it is firmly established that an effective reader is a strategic meaning maker, and in order to achieve this, he needs strategy knowledge. Strategy knowledge is viewed as the most important type of knowledge for successful reading comprehension. It is proposed that strategy knowledge may contribute to skilled reading by instructing the reader on how to become aware of misconceptions, how to perform strategies, and when to use strategies and by allowing him to perform reading tasks more flexibly and efficiently (Paris, Lipson, and Wixson, 1983: 293-316; Palincsar and Brown, 1984: 117-175; Paris, Cross, and Lipson, 1984: 1239-1252).

Although knowledge of strategies plays a crucial role for successful reading comprehension, pure knowledge of strategies alone is not sufficient. Boekaerts (1999: 445-457) states that there have to be skills in regulating the use of strategies beyond strategy knowledge. This can be understood as a step from declarative to procedural knowledge. Thus, it is not sufficient to have knowledge about strategies and to be familiar with their functions. However, in order to use strategies in an effective way, they have to be adapted to a specific reading situation. Therefore, appropriate strategies should be chosen, strategy use should be carefully monitored and evaluated, and if the learning goal is not met, strategy use should be revised. What is really demanding is the task of being aware of one's own repertoire of reading strategies, which is the case for most students, and additionally, to choose the appropriate ones in a given situation and to check if strategy use has led to the expected goal.

Therefore, the student's possession of these knowledge sources is not a guarantee that he will be able to comprehend the text with these knowledge sources. The student should know when, where, how, how much and how often and why he should use these knowledge sources. In other words, the student should be able to turn these knowledge sources into strategies when problems arise in text comprehension.

2.13 INTRODUCTION TO INFERENCES

Because the main focus of the present study is inference, it will be defined, described and elaborated on from a wide point of view and the significance, necessity, effects and contribution of inferencing and inference to the comprehension of the text will be investigated, elaborated on and discussed. When this study was started, it was hypothesized that the first year students at Gazi University Faculty of Education ELT Department, who participated in the present research, would exhibit low performance in reading comprehension, and that this was because they were poor at making inferences and they did not know inferential skills and strategies. As will be seen in the results and discussion sections of the present thesis, the hypothesis that they had poor reading skills and strategies was verified by the reading comprehension strategies questionnaire, pretest and think-aloud protocols which were developed and utilized by the thesis writer in order to collect data.

However, as a result of the comprehensive review of literature, it has been found out that not being able to make inferences is not the reason for having poor reading comprehension skills and strategies, but it is the result of having poor reading comprehension skills and strategies, not being aware of knowledge sources (morphological, syntactic, semantic, communicative, strategic, pragmatic competences and many others) and not knowing where, when, how, how much, how often, and why to use these knowledge sources. These wh-questions constitute the cognitive and metacognitive aspects of reading comprehension, which are quite significant skills and strategies in reading comprehension according to the literature. Consequently, we have reshaped our hypotheses about the students' having poor reading comprehension skills and strategies. Accordingly, we have decided to investigate all the possible reasons why they have poor inferential skills and strategies, and how necessary and significant inferential skills and strategies are in reading comprehension.

In recent years, educators and psychologists have become increasingly aware of the critical role of inference making in reading comprehension. It is stated that the ability to make inferences is not a by-product of good reading comprehension, but rather that good inference skills are a plausible cause of good reading comprehension. On the other hand, research has revealed a complex interplay among factors which may influence inferential processing. Some of the questions which reading research focuses on are what categories of inferences are generated (for example, motive inferences, bridging inferences, trait inferences, author's goals, theme inferences, causal inferences, causal consequence inferences), when inferences are drawn, what reader characteristics affect the generation of inferences (for example, skill level, prior knowledge, memory span, reader goals/motivation), whether inferences are automatically drawn while reading, what the properties of the text are, which induce inferential processing, and what instructional strategies elicit inference generation (Cain and Oakhill, 1999: 489).

Inference plays quite a significant role in studies of discourse processes and text understanding. Therefore, inferencing is regarded as a significant skill and the heart of the reading comprehension process. Also, text comprehension is itself described as an inferential activity. It can be said that the process of making inferences is equal to the process of understanding. Thus, the inferential process constitutes the core of the understanding process. The prevalence of inferences in text comprehension makes text

comprehension look like mainly inference making. Different types of inferences perform different functions in text comprehension, and they help and facilitate comprehension in many different ways (Dole et al., 1992: 245).

The text is necessarily incomplete, and the writer always leaves some information out for the reader to fill in. If he does not fill in the gaps of the text and does not make connections between the elements of the text through inferencing, comprehension will suffer. Therefore, inference is the crucial glue of comprehension. Furthermore, research suggests that inference generation and reading comprehension are inextricably linked, such that people tend to recall the text in terms of the general, overall meaning, rather than a verbatim account (Bransford, Barclay and Franks, 1972: 193-209). Therefore, in reading comprehension, finding out implicit relations and connections in the text between and/or among sentences and/or paragraphs is much more important than finding out explicit relations and/or connections (Cornoldi and Oakhill, 1996).

Because the text is never fully explicit and requires the filling in of gaps, inference-making is regarded as perhaps the most critical reading strategy for the creation of comprehension. Also, inferencing is the most widely studied area in reading comprehension research. Furthermore, making inferences is considered to be an important component of the comprehension process in interactive models of reading as well (Palincsar and Brown, 1986: 771-777). Inferences are necessary in order to elaborate on the meaning of an individual sentence as well as to integrate meanings across several sentences in the text. There are various types of inferences which differ in the cognitive demands which they make on the reader. Inferences can be automatic (made quickly and easily) or they can be controlled (very resource demanding); they can also be either knowledge-based (drawing from prior knowledge) or text-based (drawing from information already provided by the text). When the text is related to an unfamiliar domain, greater conscious control is required in order to make inferences and hence construct meaning (Kintsch, 1998).

2.14 THEORIES OF INFERENCE

There are two theories of inferential processing. These are the Constructionist Theory and Construction-Integration Theory. Also, the Relevance Theory is a closely

linked theory to reading comprehension. These theories will be described briefly in the following sections.

2.14.1 Constructionist Theory

The first theory of inferential processing is the Constructionist Theory. Graesser, Singer, and Trabasso (1994: 371-395) put forward a completely different approach to inferencing. In their constructionist approach, they assume the reader as a problem solver who is actively engaged in a search for meaning. This search is assumed to be led by the reader's goals, the need for local and global coherence, and the need for an explanation of the actions, events, and states which are mentioned in the text. According to the Constructionist Theory, the reader attempts to draw explanatory inferences which explain why the events of the text happened (Graesser, Singer, and Trabasso, 1994: 371; Singer, Graesser, and Trabasso, 1994: 421-441). Therefore, according to this theory, the reader is not primarily looking for what will happen next and do not draw predictive inferences. The reader is guided by the need to maintain sufficient explanation for the events encountered in the text. In this view, inferences which provide causally sufficient explanation for the focal event are made on-line. The constructionist approach stresses role of the information which the reader brings to bear, and it can said that this approach adopts a top-down approach to reading. However, what stands out as a crucial criterion for on-line inference generation is that the reader is knowledgeable about the inferential information.

2.14.2 Construction-Integration Theory

Models of discourse comprehension focus on the interplay of top-down and bottom-up processes in the generation of text representations. Top-down models which rely on scripts and schemata are too limited to capture adequately the flexibility in processing required to comprehend the text. On the other hand, a pure bottom-up model of discourse processing may adequately interpret the meaning of the text, but may not account for generation of elaborations which are not explicitly stated in the text. The construction-integration model puts both bottom-up and top-down processes together in the construction of the text base representation (Kintsch, 1988: 163-182).

The construction-integration model has four steps. In the first step, analyzed linguistic structures produce tentative propositions which may be incomplete or

incorrect. This may be due to the unavailability of all of the relevant information and false starts in proposition-building. For example, in the sentence ‘The spy saw the cop with a revolver,’ the on-line construction of the propositions might incorrectly produce SAW [SPY, COP, and REVOLVER]. Finally, the correct proposition, SAW [SPY, [COP, WITH REVOLVER]] is formed. The critical point here is that no one ‘right’ propositional representation is formed in the construction stage (Kintsch, 1988: 163-182).

In the second step, each proposition and concept formed in the first step activate the retrieval of associated nodes in the knowledge net. The knowledge net consists of interconnected nodes representing propositions and concepts linked together by strength values. At any given time, only a small portion of the net can be activated. Consequently, meaning is created from these activations. Meaning becomes situation specific and context dependent. For example, when the following sentence is read “The child read the story”, knowledge structures closely associated with the formed propositions are activated and may serve as potential inferences. Some potential propositions might include: “The child likes to read”, “The child can read”, “The story is in a book”, and “The child turned the pages of the book.” Some of the associated propositions activated in the knowledge net may be more useful, relevant and important than others (Kintsch, 1988: 163-182).

In the third step, specific inferences are generated. They comprise bridging inferences to maintain textual coherence and macro propositions which provide the theme (Kintsch, 1988: 163-182). In the final step, the elements previously constructed are interconnected and are assigned strength values. These elements include the propositions in the text; the activated propositions, concept nodes and associates in the knowledge net; and the bridging inferences and macro propositions and their associates in the knowledge net. The resulting structure is a connectivity matrix containing all of the elements above. The assigned strength values of the inter-connectors among the elements are a function of their strength values in the knowledge net (Kintsch, 1988: 163-182).

2.14.3 Relevance Theory

Relevance theory tries to develop one of Grice's central claims that an essential feature of both verbal and non-verbal human communication is the expression and recognition of intentions (Grice, 1989: 368-372). This claim is based on an inferential model of communication, which is an alternative to the classical code model. In the code model, the communicator encodes his intended message into a signal. This signal is decoded by the audience using an identical copy of the code. However, in the inferential model, the communicator provides evidence of his intention to convey a certain meaning. This meaning is inferred by the audience on the basis of the evidence provided by the communicator. Although an utterance is a linguistically coded piece of evidence, which involves an element of decoding, the inference process, which is not demonstrative, involves an interpretation of the speaker's meaning (Sperber and Wilson, 1985: 153-171).

Inferential pragmatics aims at explaining how the hearer infers the speaker's meaning based on the evidence provided. The relevance theory is also based on Grice's another claim that utterances automatically create expectations which guide the hearer towards the speaker's meaning. These expectations are based on the Cooperative Principle and Maxims of Quality (truthfulness), Quantity (informativeness), Relation (relevance) and Manner (clarity) which the speaker is expected to observe in communication (Grice 1961: 121-152, 1989: 368-372). Although relevance theory agree on Grice's claim that utterances raise expectations of relevance, it questions some of aspects of Grice's claim such as the role of deliberate maxim violation in utterance interpretation, and the treatment of figurative utterances as deviations from a maxim or convention of truthfulness. The relevance theory primarily claims that the expectations of relevance raised by an utterance are precise enough, and predictable enough to guide the hearer towards the speaker's meaning. The relevance theory aims to account for in cognitively realistic terms what these expectations of relevance amount to, and how they might contribute to an empirically plausible explanation of comprehension (Sperber and Wilson, 1986a).

According to relevance theory, utterances do not raise expectations of relevance because speakers are expected to obey a Cooperative Principle and maxims or some other specifically communicative convention. However, they raise expectations because

the search for relevance is a basic feature of human cognition, which communicators may exploit. According to relevance theory, an input (i.e., a sight, a sound, an utterance) is relevant to an individual when it is processed in a context of available assumptions and when it gives a positive cognitive effect. A positive cognitive effect is a beneficial difference to the individual's representation of the world. For example, it is a true conclusion (Sperber and Wilson, 1995: 1-2). The most important type of cognitive effect achieved by processing an input in a context is a contextual implication. This contextual implication is a conclusion which can be deduced from the input and the context together. However, a conclusion can be obtained from neither input nor context alone. For example, if one sees his train arriving, he might look at his watch, consult his knowledge of the train timetable, and as a result he can derive the contextual implication that his train is late. Other types of cognitive effect cover the strengthening, revision or abandonment of available assumptions. For instance, if one sees his train arrive late, he can conclude that train service is worsening. Also, the train's arriving late may cause to change his plans, i.e, doing shopping on the way to work. Thus, according to relevance theory, an input is relevant to an individual only when its processing gives positive cognitive effects. Furthermore, relevance theory claims that what makes an input worth choosing from many other inputs is not just that it is relevant, but that it is more relevant than any alternative input available to people at that time. For example, one's train arriving one minute late may not make much difference to his representation of the world. On the other hand, if it arrives half an hour late, this may lead to a radical reorganization of his day. For instance, he is going to cancel all his appointments at 10 a.m., and he is not going to attend a business lunch at luxurious hotel. Thus, the relevance of inputs will vary accordingly. Relevance theory claims that in processing of different options of inputs, the human cognition automatically picks out potentially the most relevant input available (Sperber and Wilson, 1987b: 736-753).

If the relevance theory is considered in the context of reading comprehension with regard to making inferences, it is potentially useful to account for inferencing in terms of pragmatic aspects. In daily life, we always make decisions, judgements, evaluations, deductions, etc., about people and things in the world. It is impossible for people to stop themselves doing this because this is the way our brain operates. Thus, one of the theory of reading comprehension was 'psycholinguistic guessing game' as put forward by Goodman (Goodman, 1967). According to this theory, when people

read, they make hypotheses and confirm or disconfirm them based on the evidence offered in the text. Therefore, it can be said that relevance theory can be placed within reading comprehension theory to account for it in terms of different aspects such as people's expected behaviors in certain situations, i.e., being angry when a person comes late to an appointment. Actually, we are exposed to numerous events in the world and they are recorded in our cognitive system. We tend to make deductions and generalizations about events, situations, contexts, etc. Thus, a text can be regarded as a visually recorded account of such events. When we read a text, we also make deductions from what we read, which is nearly identical to the claims of the relevance theory. For example, one of the types of inference is evaluative inferences. If we consider the following text: 'Tom secretly watched who came in and out of Mary's flat'. From this short text, we may make some deductions regarding Tom's character. For example, 'He is snoopy, he is jealous of Mary, or even he could be a detective collecting secret information about Mary.' Thus, which of these deductions are the most relevant depends on the evidence offered in the rest of the text. Upon reading this sentence, different alternatives spring to mind; however, as we read through the rest of the text, we choose the most relevant one, in reading terms, the most plausible inference. After having established that relevance theory is closely linked to reading comprehension, it can be concluded that it could be useful especially in drawing evaluative, elaborative and causal inferences in texts.

2.15 DEFINITIONS OF INFERENCE

Successful comprehension of the text frequently depends upon the reader's ability to read between the lines to understand information which may not be directly stated. If the writer gave every piece of information which he was trying to communicate, the text would be overly repetitious, very long, and quite difficult to follow. Therefore, writers commonly omit certain pieces of information, and they assume that readers will be able to use general and schematic knowledge to fill in the gaps to extract the intended message. Being able to effectively draw inferences from what is read is very important because people frequently encounter a variety of texts such as instructions for digital devices, medication instructions, consumer product information, and newspaper and magazine articles.

Inference making is a complex and necessary activity in the comprehension processes of daily life. Because it is a complex activity, it is explained from diverse theoretical viewpoints. However, there are some problems concerning what types of inferences there are, how and when inferences are processed and activated, and which of the theories best explains and predicts the creation of inferences. One significant factor in the formation of inferences is considered to be previous world knowledge which gives rise to the production of inferences. Without previous knowledge, inferences cannot be made. Inferencing is one of the central cognitive processes in reading comprehension (Graesser and Bower, 1990; Kintsch, 1988: 163-182 and 1998; Nassaji, 2002: 439-481, 2003a: 261-276). According to Alptekin (2006: 494-508), in inferential comprehension, the reader goes beyond the literal meaning of the text to understand what it says and what it is about through knowledge-driven processes such as synthesizing, summarizing, generalizing, and extrapolating.

Furthermore, inferencing involves reasoning beyond the text due to its nature. Brown and Yule (1983) define inferencing as the connections which people establish when they try to interpret the text. Inferencing occurs at all levels of the reading comprehension process, ranging from integrating the text with background knowledge (Kintsch, 1988: 163-182), to connecting the different parts of the text together (Kintsch, 1988: 163-188 and 1998), to linking known to unknown elements in the text in order to arrive at a coherent structure of the information in the text (Graesser and Bower, 1990). Such processes are assumed to involve prediction and interpretation of the text for meaning; hence, they are considered important processes by theories in cognitive psychology which conceptualize reading as an active meaning-construction process and a creation of a mental representation of the text. From a constructivist viewpoint, successful inferencing is the product of combining prior knowledge and understanding with accurate information which is explicitly stated and/or indirectly expressed by the author or speaker. Since very few communications (verbal, visual, or printed) are constructed without any implied information, the linguistic ability to make valid and reliable inferences from implications is essential in order to attain a satisfactory level of reading comprehension (Kintsch, 1988: 163-188 and 1998).

Grellet (1981) defines inferencing as making use of logical, cultural, and syntactic clues to find out the meaning of unknown elements. If these elements are words, word-formation and derivation are also used as clues for guessing a word.

According to Oxford (1990), inferencing is a compensation strategy and she claims that when a good language learner encounters unknown expressions, he makes educated guesses by using a range of linguistic and nonlinguistic clues. Furthermore, inferencing is recognized as an essential cognitive component of reading comprehension in the psycholinguistic models of reading, which view the reading process as an interaction between the information given in the text and the pre-existing knowledge of the reader.

According to Singer, Graesser and Trabasso (1994: 421-441), there are two factors which influence the making of an inference. These are text characteristics and reader characteristics. Textual factors concern the question whether an inference contributes to the coherence of the text or to the completeness of the text, whether the information to be inferred is thematic and important or peripheral and unimportant, whether the distance between textual elements to be connected is short or long, and whether the information to be inferred is interesting or not. Reader characteristics are those which concern the task or the goal set by the reader or by someone else, and prior knowledge the reader has about the subject of the text.

All the above mentioned researchers share the same idea that inferencing is a significant and critical process for reading comprehension. Therefore, generating and evaluating inferences is considered to be an essential comprehension-fostering activity. Furthermore, inferences perform the function of connecting the elements of the text. As a result, inferences require an individual to integrate prior knowledge with new information in an effort to construct coherent meaning (Thurlow and Van den Broek, 1997: 1-13). Also, Johnston (1983: 7) notes that the creation of inferences is crucial to the understanding of the text. According to him, inferences allow the reader to make various words meaningful, join together propositions and sentences, and fill in the missing chunks of information. He states that the development of inferences relies on an integrated experience with the text where the reader uses both text-level and knowledge-level information to build an understanding of the material.

However, today in many classrooms, direct instruction and practice in the identification and discrimination of implications and assertions are not offered. The learner is not trained sufficiently in the use of metacognitive strategies which facilitate the production of accurate inferences. It is true that the student is told to make inferences, but he is not shown how to make inferences. Therefore, the student must possess both knowledge sources, skills and strategies in order to develop a proficient level of comprehension and improve his inferential comprehension.

2.16 INFERENCE GENERATION IN READING COMPREHENSION

As people read, a wide range of inferences are made, which both clarify and enrich the text. The following short text can be given once more in order to illustrate how inferences occur in the text (Thurlow and van den Broek, 1997: 1-13):

“Toby wanted to get Chris a present for his birthday. He went to his piggy bank. He shook it. There was no sound.”

It can be easily understood that the lack of sound means “Toby has no money to buy a present.” However, the text does not explicitly mention the words ‘money’ or ‘buy.’ Thus, why Toby shook the bank and what the pronoun “it” refers to can be understood with little struggle in order to fill in the missing pieces in the text.

As the reader reads through the text, first, he identifies letters and words. For example, a less successful reader spends nearly all of his resources on this effort. Also, he cannot make out the text as a unit to assign appropriate meaning to the sentences. On the other hand, a skilled reader identifies words automatically. Therefore, he is able to determine simultaneously what the combinations of words, phrases or sentences (for example, There was no sound) mean as a unit. In this way, the reader must go further and integrate each new sentence into the context provided by the rest of the text. In the “Toby” text, multiple inferences are made to integrate the final sentence with the preceding sentences, which is quite a simple task, for example, deciding that the lack of sound is related to the shaking (previous sentence) of the piggy bank (two sentences earlier), and its implication that the bank is empty.

The ultimate goal of the reading process is the integration of the text into a complete or coherent representation in the reader’s memory. The memory

representation is constructed from the reader's comprehension of the ideas in the text and the relations which tie those ideas together. A coherent memory representation of the text such as the story about Toby consists of the characters and events described and the various relations among them (Kintsch and Van Dijk, 1978: 363-394; Graesser and Clark, 1985). Toby, Chris, and the piggy bank are included in such a representation in addition to the relations among them: Toby's goal of buying a present for Chris, and the actions he takes to meet that goal. If there is a lack of understanding of some of the relations in the story, the Toby text cannot be represented well in the mind, so it will be less coherent. The degree of coherence in the reader's representation corresponds to the degree of completeness in the reader's memory for text ideas and the relations among them. Thus, the more complete or coherent the representation is, the more complete the reader's comprehension will be (Van den Broek, 1989: 19-44).

However, as in the Toby text, a text is usually incomplete because it does not present every piece of information explicitly. Therefore, the reader is required to fill in, or infer the missing information from background knowledge about the topic. Also, a text is potentially incoherent for any reader who lacks background knowledge. By filling in missing information (such as the fact that piggy banks, when shaken, usually make a noise if they contain coins), a skilled reader creates cohesive ties which overcome these potential breaks in coherence (Halliday and Hassan, 1976).

In addition to leaving out information, there are often implicit relations between adjacent sentences. For example, there is no explanation in the sample story as to why Toby went to his piggy bank. It can be easily inferred that his goal of wanting to get a present caused him to check his bank. However, even this purpose is an inference which must be made to maintain coherence. Again, the reader depends on background knowledge to fill gaps in the memory representation of the text. Therefore, inferences are required to bridge disjointed, partial, or distant information, and to make sense of each new sentence in the context of the rest of the text (Thurlow and van den Broek, 1997: 1-13).

In order to make sense of a piece of text, the reader must infer unstated information and implied relations between adjacent as well as distant sentences. However, this is quite difficult. First, this difficulty depends on the amount of the missing information in the text. Second, the amount of the reader's background

knowledge affects the comprehension of the text. Third, the reader is limited in terms of cognitive resources available. A text cannot be held entirely in the attention at one time to examine how each sentence relates to all the others. Fourth, the reader's ability to maintain coherence is affected by his own criterion for coherence because he differs in the degree of coherence which he aims at. Therefore, these differences are reflected in the amount of effort spent in handling difficult inferences, missing information, ambiguity, or a lack of clarity (Thurlow and Van den Broek, 1997: 1-13).

Skill in inference generation depends on two factors: (a) rapid and reliable recognition of when to initiate inference making, and (b) efficient and effective generation of the actual inference. If these processes occur automatically, it should improve the probability that a coherent representation is created because it will expand the reader's capacity for both monitoring comprehension and making inferences (Thurlow and van den Broek, 1997: 1-13).

Inferences can be broken into two distinct categories (McKoon and Ratcliff, 1992: 440-466). Anaphoric and causal inferences are the ones which are required for maintaining coherence. Likely and enriching inferences are the ones which elaborate on the meaning of the text. Therefore, the distinction between required and elaborative inferences is significant for educators because the reader must make the required inferences to create a coherent representation of the text. Thus, developing automaticity for making those inferences promotes the likelihood of complete comprehension. However, because research supports only a minimalist view of automatic inference generation, the implication might be that the reader does not or cannot generate elaborative inferences automatically (Thurlow and van den Broek, 1997: 1-13).

2.17 TYPES OF INFERENCES

Many types of inferences have been found and investigated. The multitude and diversity of inferences and their importance to discourse comprehension have led several researchers to attempt to make classifications (Kintsch, 1998).

There are many ways to characterize the inferences which are generated during language comprehension. Several different taxonomies have been proposed, ranging from simple (e.g., necessary versus elaborative; forward versus backward), to complex ones based on the type of information inferences provide (Graesser, Singer, and

Trabasso, 1994: 371-395). One dimension on which inferences differ is the extent to which discourse comprehension is dependent on the information in the text. Some inferences are more essential for successful comprehension than others. An inference which is necessary for comprehension is typically referred to as a necessary inference (McKoon and Ratcliff, 1992: 440-466; Graesser, Singer and Trabasso, 1994: 371-395). On the other hand, an inference which provides information which is not essential for comprehension, but embellishes understanding is called an elaborative inference. For example, an inference which is related to an emotional response which does not contribute to the comprehension of the story is an elaborative inference.

According to Trabasso, Van den Broek and Suh (1989: 1-25) making causal inferences has a strong influence on the creation of macro structures which are the main and general points of the text. Also, causal inferences are of particular importance to build a coherent representation of a narrative text. They allow the reader to establish causal dependencies between different events in the text, and help him to form a coherent mental representation of a narrative. This coherent representation, in turn, facilitates the comprehension and recall of a story. Because making causal inferences leads to successful understanding of narrative texts, it is necessary to facilitate the student's comprehension, which is an important goal of reading instruction (Trabasso and Van den Broek, 1985: 612-630). Thus, one useful technique is systematic questioning (Trabasso, Van den Broek and Lui, 1988: 25-38), where the causal network model is used to identify points in the text where crucial inferences need to be made, and questions are devised to bring out those inferences. Van den Broek (1989: 19-44) recommends that teachers instruct students on the causal properties of texts and signals in order to understand causal relations. In addition, textbooks should include all the information necessary for the reader to identify causal relations.

Predictive inferences represent the likely outcome or consequences of a described event, such as anticipating that 'the vase broke' when reading that 'the fragile porcelain vase was thrown against the wall.' They enable the reader to anticipate the forthcoming information, and therefore, facilitate subsequent processing. The reader makes a predictive inference when he infers what event will occur next according to the situation which the text describes. Our causal knowledge of the normal course of events gives us opportunities to draw these kinds of inferences. For example, when reading the

sentence ‘the ship ran into an iceberg’, one might predict that the ship sank (Campion, 2004: 149-164).

Connective inferences are required to establish coherence between different parts of the text (e.g., anaphoric reference, explanation, or causal antecedent inferences), and they are assumed to be necessary and occur automatically.

Elaborative inferences serve to expand upon the explicit information (e.g., instantiation of exemplars of categories, semantic associations) and build a situation model of what the text describes (e.g., instrumental, topic or theme related, and predictive inferences); they are assumed to be optional and resource demanding. These inferences simply specify sensible guesses from the text, but do not play a special role in coherence. Moreover, they are not necessary for comprehension of the text, but enrich the mental representation of that text. In this regard, suppose one reads only the sentence ‘Valerie left early for the birthday party;’ the inference that Valerie was bringing a present to the party would be sound, but it would not link the sentence to a specific text antecedent (Singer and Remillard, 2004: 1223-1237).

Cohesive inferences rely on linguistic cues present in the text. For example, anaphora and pronoun resolution are necessary for text comprehension. For instance, in order to form a coherent representation of the sentence, ‘Tom hit Janet with his tennis racket.’ The reader needs to infer that the tennis racket belonged to Tom. In order to make this type of inference, the reader knows that the two people referred to in the sentence are of different genders, and that the noun ‘tennis racket’ is preceded by the pronoun ‘his’. ‘His’ indicates that the tennis racket belongs to someone of the male gender. Because Tom is the only male mentioned in the sentence, it can be inferred that the tennis racket belongs to Tom (Bowyer-Crane and Snowling, 2005: 190-198).

Knowledge-based inferences depend on the application of the reader’s real-world knowledge to the text. They differ from elaborative inferences in that they are necessary for textual coherence. The information needed is not always explicit in the text, so inference is necessary in order to form a coherent representation of the text. For example, consider the following sentences: ‘The campfire started to burn uncontrollably. Tom grabbed a bucket of water.’ In order to understand why Tom grabbed a bucket of water, it is necessary to relate the second sentence to the first ‘The

campfire started to burn uncontrollably.’ by generating the inference that Tom was trying to put the campfire out. To do this, the reader must activate the mediating idea that ‘water puts out fire’ from their own real-world knowledge (Singer, Harkness, and Stewart, 1997: 199-228). Without generating this inference, the two sentences remain disconnected and do not form a coherent whole. A less-skilled reader fails to make knowledge-based inferences spontaneously during reading. One reason why a less-skilled reader may not make a knowledge-based inference spontaneously is that he may not be identifying what the important words are in a passage; consequently, important facts about these words are not activated and used to consider logically the relationships among the words in a text.

Explanatory inferences also play a significant role in comprehension performance. They serve to unite propositions in a story so that the reader can construct a coherent mental representation of a story. A reader who is continually attempting to link story propositions is more likely to maintain causal information in working memory and to be able to use this information to answer comprehension questions and recall story propositions. In other words, a greater number of comprehension questions answered will be expected to be about explanatory inferences, and answering such questions depends on recalling story propositions correctly (Suh and Trabasso, 1993: 270-301).

Text-semantic inferences involve the ability to follow temporal sequences and contrastive arguments in the text and to perceive the cause–effect relations between entities and part-whole relations. A contrastive relation is an unexpected or opposing point to what has been stated, a concession or qualification to a previous statement or a denied implication. It is typically signalled by conjunctives such as ‘yet, however, although, on the one hand, on the other hand’ and so on (Pretorius, 2000: 1-15).

Thematic inferences involve the ability to distinguish main ideas from supporting ideas. A main idea is not always explicitly stated, but need to be inferred from the text, and the ability to make such inferences is typically associated with skilled reading (Pretorius, 2000: 1-15).

Textual inferences refer to the ability of the reader to make inferences about the macro organization of the text (for example, the way in which a writer presents information in paragraphs) (Pretorius, 2000: 1-15).

Evaluative inferences relate to the emotional outcome of an event, for example, the consequences of actions. Such inferences are also necessary to the understanding of the text, and they rely on the reader's use of real-world knowledge in interpreting textual information. For example, in the sentence 'Helen fell off her bike and broke her arm. She started to cry', the reader infers that Helen was likely to be crying because she was in pain. Based on the information presented in the text, no other interpretation will make sense (Bowyer-Crane and Snowling, 2005: 190-198).

Trait inferences occur whenever trait-implying behaviors are processed. They constitute concepts which represent the categorization of behavior. For example, the sentence 'She asked where the stars came from' could generate the trait inference that she was curious. Another sentence, 'She watched her neighbor's house to see who came and went,' could generate a more specific trait inference that she was nosy. Trait inferences apparently occur under a variety of processing goals and usually without awareness, and they are implicated in sudden judgments which spring to mind. They may also furnish people's initial hypotheses when others are judged in a deliberately conscious, explicit manner (Whitney, Davis, and Waring, 1994: 19-35).

Although inference studies have focused on identifying the types of inferences which support comprehension, Shears (2002) proposes that identifying areas of general knowledge which support the inference process may be more fundamental to our understanding of how and when comprehension relies upon the inference process than categorizing inference types, because all knowledge-based inferences are drawn from general knowledge.

2.18 INFERENCE TRAINING

The following factors affect whether or not an inference is made automatically: (a) whether an inference is required to maintain coherence, (b) whether the text compels the reader strongly toward an inference, (c) whether the reader has the relevant background knowledge readily available, and (d) whether the reader is motivated and has an appropriate standard of coherence. From an educational perspective, the question

is how the reader's ability to generate inferences automatically might be improved. For this purpose, Thurlow and Van den Broek (1997: 1-13) give the following educational implications for a better reading comprehension.

First, the skilled reader has a goal of constructing a coherent memory representation. Thus, the reader could be made aware that the pieces of the text are meant to go together and that he has a task to find out how those pieces fit just as the author has the task of making the pieces easy to put together.

Second, the skilled reader has strategies and criteria for repairing coherence breaks. He re-reads difficult passages, he looks back in the text for more information, and he even makes up his own explanations which make sense. These are all teachable skills, and instruction in such strategies is important (Irwin, 1986).

Finally, the skilled reader can make inferences automatically only if he is careful in the use of his attentional resources. That is, he must attend to the most important material for making inferences. Research suggests that the skilled reader focuses his attention in certain ways. He follows and pays attention to the most important topic information and directs attention to any new material referring to the same topic either directly or anaphorically. For example, the reader might keep his attention focused on main characters in the text as their story goes on, because they are referred to again and again. This is called a leading edge strategy based on the research regarding the automatic nature of anaphoric inferences. A second way for the reader is to attend to text information which is likely to play an important causal role. The goals and motives of characters, or actions which have occurred but have not yet had a consequence could be in the causal role. For example, in this short section of the story "Janet's dog Brutus slammed into the table in his enthusiasm. Later she surveyed the broken shards of her rare vase", the reader might focus his attention on the fact that the vase was broken because up to this point, nothing has happened as a consequence of the accident. This is called a current state strategy, and it is supported by research on the automatic nature of causal inferences. Thus, the reader could be instructed to attend to these aspects of the text and to ask questions about common referents (What did Toby shake?), causal relations (Why did Toby shake the bank?) (Kintsch and Van Dijk, 1978: 363-394).

Inference training resembles the teaching of problem solving strategies. Inferencing is usually an unconscious and demanding task. The reason for the difficulty of drawing inferences is that inferential skills are a metalinguistic ability which works against a strong psychological and linguistic tendency. Therefore, many readers cannot distinguish explicitly stated information from implied information. The ability to self-monitor and assess this inference making process requires explicit classroom instruction to change static pattern of thinking. Thus, without explicit training, it is more difficult to answer inferential questions about the text than literal questions (Dewitz, Carr and Patberg, 1987: 99-122).

2.19 HISTORY OF READING COMPREHENSION STRATEGIES INSTRUCTION

The explicit teaching of text comprehension before the 1970s was done largely in content areas and not in the context of formal reading instruction (Durkin, 1979: 518-544). Research on the instruction of comprehension strategies began in the late 1970s and has grown tremendously since then. What people think about thinking, how their knowledge develops, and what they know about how their own thought processes affect reading comprehension are the significant questions for researchers and educators. The focus on what people know about cognition has led to the development of practical strategies for improving the student's comprehension. When the four decades of research is viewed, there are plenty of research studies supporting the efficacy of cognitive strategy training during reading as a means to enhance the student's comprehension. Furthermore, in the last 20 years, identifying effective reading strategies has been the major goal of reading comprehension research for the purpose of enhancing the quality of reading comprehension (National Reading Panel Report, 2000).

In the past, comprehension instruction involved teaching of only single cognitive comprehension strategies in isolation in controlled experiments. Comprehension strategy research typically involved teaching a single comprehension strategy to one group of students and then comparing the performance of the instructed group to a control group of students. However, recently comprehension instruction has begun to be carried out in the form of a multiple set or family of cognitive comprehension strategies in coordinated use. In multiple strategies programs, strategy practice is often supported

by peer-assisted learning arrangements (Palincsar and Brown, 1984: 117-175; Dole et al., 1992: 239-264; Guthrie et al., 2004: 403-423).

The idea behind explicit instruction of text comprehension is that comprehension can be improved by teaching the student to use specific cognitive strategies or to reason strategically when he encounters barriers to comprehension when reading. The goal of such training is the achievement of competent and self-regulated reading (National Reading Panel Report, 2000).

2.20 CRITERIA OF READING COMPREHENSION STRATEGY INSTRUCTION

There is a broad agreement that strategy instruction should be direct and explicit, and should give conditional metacognitive knowledge about when and how to use a strategy. It should use carefully structured tasks which explain exactly how to accomplish the tasks and provide corrective feedback. Also, the process of internalizing strategy use should be supported by instructional aids such as modelling, guided practice, scaffolding and reciprocal teaching and offering various opportunities for practice, transfer, and cooperation among students. The three critical characteristics of reading strategy instruction are: timing, application and specificity. First, strategy instruction should be intensive and occur over a sustained period of time. Secondly, instruction should include knowledge requiring a learner to know why, where, and when to use a strategy. Lastly, effective strategy instruction should be explicit, direct, and specific to the contextual situation of a learner. The fundamental features of strategy instruction are: (a) explicit description of strategies, (b) modeling of strategies by teachers or students, (c) collaborative use of strategies, (d) gradual release of responsibility to students through guided practice, and (e) students' independent use of strategies (Paris, Cross and Lipson, 1984: 1239-1252; Simpson and Nist, 2000: 528-541).

The final criterion for reading strategy instruction concerns the content of it. The content of comprehension instruction has changed from the teaching of many comprehension skills to the teaching of several cognitive comprehension strategies. The mode of comprehension instruction has also changed. Early comprehension instructional research focused on effective comprehension strategy instruction employing explicit explanation, modeling, and scaffolding of a single comprehension

strategy. The National Reading Panel (2000) and others advocate the teaching of a set or family of comprehension strategies within a collaborative, interactive and engaging routine around the text. Also, research shows that good readers do not use comprehension strategies one-at-a-time as they read. Rather, they orchestrate and coordinate a set or family of strategies to comprehend the text.

2.21 METHODS OF READING COMPREHENSION STRATEGY INSTRUCTION

There are a wide range of different kinds of strategy instruction in the literature in order to enhance the student's reading comprehension and remedy his reading difficulties. The main methods of strategy instruction are given and discussed below.

2.21.1 Reciprocal Teaching Approach: RTA

The Reciprocal Teaching Approach was originally developed by Palincsar and Brown (1984: 117-175; 1986: 771-777). RTA is based upon a cognitive-constructivist philosophy of reading. Scaffolding is at the heart of the RTA and generally the teacher models four reading strategies. These are generating questions, clarifying issues, summarizing and making predictions. While the teacher initially instructs students about the strategies, gradually the responsibility is transferred to students. Students are often divided into groups, and the text is read silently and orally by one of the students or the teacher, depending on the language level of the group. The leader of the group initiates the discussion by summarizing the text, asking questions, clarifying misunderstandings and generating predictions.

These four strategies are involved in RTA in ongoing dialogues between a dialogue leader and the remaining students of the learning group. The dialogue leader, who can be the teacher or the student, models the use of the strategies, provides conditional knowledge about strategy use, and helps students to apply a strategy to a passage. As the students in the group become more familiar with the strategies and the procedure, dialogue leaders fade their involvement and other students take turns as discussion leaders. An underlying assumption of RTA is that by applying the strategies in a group process, especially less able students can learn from their more knowledgeable peers. The overall goal is to promote, through scaffolding instruction and collaboration, the self-directed and flexible use of the learned strategies. In sum, the following elements are essential to RTA: instruction of the four comprehension-

fostering and comprehension-monitoring strategies, application of the strategies using rich and meaningful reciprocal dialogues, and providing scaffold instruction during which teachers gradually fade their modeling of the strategies (Spörer, Brunstein, and Kieschke, 2008: 1-15).

2.21.2 Cognitive Academic Language Learning Approach: CALLA

Cognitive Academic Language Learning Approach was originally developed by Chamot and O'Malley (1987: 227-249). CALLA is based upon cognitive learning in which bilingual learners apply prior knowledge and other strategies, such as making inferences and monitoring comprehension to content area subjects. CALLA is based on the notion that active learners are productive learners, strategies can be learned, academic content learning is more effective with strategy use, and learning strategies can transfer to new learning. In CALLA, strategies are broken down into cognitive ones, metacognitive ones and social/affective strategies. It is recommended that a small number of strategies be introduced and taught so that students can feel successful with them. Because strategies such as activating prior knowledge and inferencing are interrelated, they can be introduced together. The teacher both instructs and supports students with the process since not all students will feel at ease with the strategies.

2.21.3 Multiple Strategy Instruction

Multiple strategy instruction occurs in the form of a dialog between the teacher and the student. Students are taught individual strategies when and where they are appropriate, usually through modeled use by the teacher. Over the course of reading a passage, several strategies may be taught in conjunction with one another. For example, the reader may predict along with clarification of the meaning of a word, activation of knowledge about a story schema, and summarization of the main idea. In multiple strategy instruction, students are taught how to adapt the strategies and use them flexibly according to their situation. The teacher models and assists in the learning and flexible use of the strategies by the student. Cooperative learning or peer tutoring may be used as a part of multiple-strategies instruction (National Reading Panel Report, 2000).

2.21.4 Question Generation

The goal of reading strategy instruction, in general, is to teach the reader to become an independent, active reader who uses strategies which enhance his comprehension. One strategy which achieves this goal is question generation in which the reader learns to pose and answer questions about what is being read. Without training, a young reader is not likely to question himself. Nor is he likely to use questions spontaneously to make inferences. The assumption of question generation instruction is that the reader will learn to engage in the text by making queries which lead to the construction of better memory representations. The goal is to teach the student to make these self-questions while reading. If one asks why, how, when, where, which, and who kinds of questions, it is possible to integrate segments of the text, to improve reading comprehension and memory for what is read, and to gain a deeper understanding of the text. Question generation should also increase the reader's awareness of whether the text is being understood. When the teacher is present, the reader's creation of questions may signal success or failure in comprehension and prompt the teacher or the reader to attempt to compensate for comprehension failure (National Reading Panel Report, 2000).

2.21.5 Summarization Instruction

The assumption in teaching students how to summarize what they read is that most students do not summarize well. The central aim of most summarization instruction is to teach the reader how to identify the main or central ideas of a paragraph or a series of paragraphs. Summarization training is effective. It can be transferred to situations requiring general reading comprehension, and it leads to improved written summaries. Summarization training can make the student more aware of the way the text is structured and how ideas are related. If the student is asked to summarize, he has to pay closer attention to the text while he reads. He also learns to spend more time on reading and trying to understand what he reads. In some instances, training increases the quality of the student's note taking and recall of major information (National Reading Panel Report, 2000).

2.21.6 Peer Assisted Learning

In peer-assisted learning arrangements students read in pairs. Peer-assisted learning lessons consist of a set of structured activities, such as partner reading, summarizing, and predicting, and students are taught to enact these activities independently. At the beginning, teachers use a set of briefly scripted lessons including teacher presentations, student practice, and teacher feedback. Later on, two students are paired to share and practice reading activities. Similar to Palincsar and Brown's (1984: 117-175) RTA program, students' roles can be reciprocal so that both students in a pair serve as tutor during each lesson. Also, when the same age peers with differing levels of cognitive ability or task understanding work closely together, they will benefit from this reading instruction optimally (McMaster, Fuchs, and Fuchs, 2006: 5-25).

2.21.7 Peer Tutoring Model

Peer tutoring is an individualized and personal instructional learning process in which one student teaches another, which is compatible with the constructivist philosophy. Both reciprocal teaching and peer tutoring rely on the concept that prior knowledge will be activated and made accessible through the process of joint problem solving. It is through the mutual interchange between individuals that new knowledge is more easily constructed and linked to past knowledge (Resnick, 1989). In peer tutoring the emphasis is upon bringing together two individuals who are coming to terms with differences in perspective. It is the cognitive conflict posed by the differences between the two partners which results in intellectual development. Although this approach has many of the cooperative features of the reciprocal teaching model, it is not a group activity and consists of students working together in pairs. For the grouping of peers, King (1997: 221-235) suggests that similarly aged peers are more likely to understand each other's vocabulary and thinking, take feedback from each other more seriously, feel less threatened by corrective advice, and be more motivated to reconcile cognitive discrepancies when they arise.

2.21.8 Informed Strategies for Learning: ISL

Informed Strategies for Learning is an approach to comprehension instruction which aims to increase students' metacognition and use of effective reading strategies. The instruction is designed to teach students two fundamental aspects of effective

strategy use - (a) knowledge about cognition and (b) use of executive functioning processes to direct other cognitive activities. Thus, students learn the declarative ('knowing that'), procedural ('knowing how'), and conditional ('knowing when and why') knowledge for using the strategies as well as strategies for evaluating, planning, and regulating their comprehension. In ISL instruction, students learn a variety of strategies such as understanding purposes of reading, activating relevant background knowledge, allocating attention to main ideas, critical evaluation, comprehension monitoring, and drawing inferences. The functional value of strategy use is emphasized so that students believe that the strategies are useful and necessary. ISL occurs primarily in group lessons which include direct instruction, student participation, and dialogues so that students can share their thinking and listen to the views of others (Paris, Lipson, and Wixson, 1983: 293-316; Paris, Cross and Lipson, 1984: 1239-1252).

2.21.9 Direct Explanation: DE

Direct Explanation is very similar to ISL and emphasizes the value of explicit (or 'direct') explanations about how to reason with strategies (Duffy et al., 1987: 347-368). DE is characterized by six instructional actions. First, teachers introduce a section of the text and state explicitly the declarative, procedural, and conditional knowledge specific to the strategy to be learned. Then the teacher models how to use the strategy and provides scaffolded practice with coaching which gradually diminishes as students' understanding about using the strategy increases. Next, students read the passage for both content and application of the new strategy. Finally, the lesson closes with statements which reinforce the strategy and how to apply it to other settings. It is emphasized that the explanations require thoughtful and adaptive teachers who control various ideas, select from a variety of principles, and create different instructional combinations. In contrast to RT and ISL, DE focuses on the preparation of teachers for conducting reading comprehension strategy instruction.

2.21.10 Strategy Based Instruction: SBI

Another instructional model is Strategy-Based Instruction, which emphasizes the importance of learner-centeredness. In SBI, strategies are presented both explicitly and implicitly in a systematic way. After the examination of material to determine the appropriate strategies, they are employed whenever the learner encounters

comprehension problems. During the application of strategies, the teacher adopts the roles of diagnostician, learner trainer, coach, coordinator, language learner, and researcher. This method is considered beneficial for readers in order to be more aware of how to enhance their comprehension by taking the responsibility of their own learning (Cohen, 1998: 98-101).

Although there are distinctions among strategy instruction programs, the similarities stand out much more than the differences. Five characteristics are at the center of the instructional programs. These are: (a) explanation of declarative, procedural, and conditional knowledge for using the strategies, (b) cognitive modeling and think-aloud statements about how to execute the procedures, (c) scaffolding and guided practice in which there is a gradual shift in responsibility from a teacher to a student doing most of the thinking, (d) discourse between a teacher and a student, (e) and discussion and peer collaboration.

2.22 IMPLEMENTATION OF READING COMPREHENSION STRATEGY INSTRUCTION

The major problem facing the teaching of reading comprehension strategies is that of implementation in the classroom by the teacher in a natural reading context with readers of various levels. The teacher should be able to answer a series of 'wh' questions such as what strategy to apply, how, how much, when and why to apply it with particular students. In order for students to actually develop independent and integrated strategic reading abilities, instruction should be designed and given carefully. Duffy argues that strategies are not skills which can be taught by drill; however, they are plans for constructing meaning. Teaching students to acquire and use strategies requires changing traditional approaches to strategy instruction. The teacher should free himself of the expectation that his job is to follow directions narrowly because being strategic is much more than knowing individual strategies. When faced with a comprehension problem, a good strategy user will coordinate strategies and shift strategies as it is appropriate to do so. They will constantly alter, adjust, modify, and test until they construct meaning and the problem is solved (National Reading Panel Report, 2000). Carrell (1998: 1-5) identifies two main components necessary for reading strategy instruction to be successful. First, knowledge of cognition is required which involves what strategy to use and when and how to use it. Second, regulation of

cognition is required, which covers the monitoring, planning, and transferring processes.

In the implementation of strategy instruction, first, the teacher describes the strategy by defining it or explaining the features of it. Secondly, he needs to explain to his students why they are learning the strategy and thus the benefits of the strategy. These two procedures are related to declarative knowledge. Next, the teacher needs to show how the strategy is used by breaking it down into various components and showing how these components are related. The teacher needs to provide explicit examples through their own think-alouds. Procedural knowledge is addressed through this action. Then the teacher describes when and where the strategy should be used. Finally, the teacher needs to show students how to evaluate the effectiveness of the strategy use, and he needs to provide additional suggestions to remedy strategy problems. The last two steps address conditional knowledge (Lawrence, 2007: 55-66).

The following steps are followed in strategy instruction (O'Malley and Chamot, 1990):

- a) Determine the learner's needs and the time available.
- b) Select strategies well.
- c) Consider integration of strategy training.
- d) Consider motivational issues.
- e) Prepare materials and activities.
- f) Conduct completely informed training.
- g) Evaluate the strategy training.
- h) Revise the strategy training.

2.23 FACTORS AFFECTING READING COMPREHENSION STRATEGY INSTRUCTION

It is strongly recommended that strategy instruction should be a part of each lesson in an ongoing process through the whole curriculum rather than taught separately

because strategic reading improves only if the reader is exposed to a lot of practice in a long-term training program. Also, most instructional recommendations support the view that strategy instruction should be integrated properly into regular classroom instruction. As research suggests, teaching readers how to use strategies should be the main consideration in reading classrooms. Strategy instruction can focus not only on raising students' awareness of strategies in general, but also help students find ways to develop their own strategies for different reading tasks. If strategy instruction is designed carefully and sensitively according to students' needs and if students practice using strategies rather than mastering theoretical understanding of strategy principles, it encourages more self-directed learning (Anderson, 1991: 460-472; Chamot et al., 1999; Grabe and Stoller, 2002).

The goal of strategy training is to teach explicitly students how, when, and why strategies can be used to facilitate their efforts in the language learning process (Cohen, 1998). Explicit teaching of comprehension strategies is characterized by explanations of what strategy is to be learned, why it is important to learn, and where and when it is to be used. According to McDonough (1995), the teacher should adopt the role of a model in the early stages of instruction, and then transfer the real responsibility to students gradually so that they can decide on their own goals and the appropriate strategies while reading. In other words, the teacher's ultimate goal in strategy instruction is to facilitate the identification and use of appropriate strategies by learners independently (Rubin, 1987: 15-31). Instruction in comprehension strategy use often involves the gradual release of responsibility, where the teacher initially explains and models strategies. Over time, he gives students more and more responsibility for using the strategies until they can use them independently.

Also, the teacher needs to be aware of students' own reading processes in order to help raise their awareness and appreciation of strategies. The role of the teacher is to be explicit about what the strategies consist of, how, when, and why they might be used and how effective any particular strategy might be in a particular context. When teaching a learning strategy, the teacher should identify the strategy, explain why it is useful, demonstrate its use, give students practice in applying it to a learning situation, and show them how to evaluate its effectiveness and what to do if it does not work. In order to develop strategic readers, the teacher should (a) introduce a repertoire of

reading strategies to students, (b) provide students with opportunities to practice strategies, (c) discuss how practicing strategies help students in their comprehension, and (d) help students become more conscious of their reading behaviors by asking them to describe the strategies which they employ while reading. Finally, the success of helping any student to become a strategic reader is dependent on the teacher's pedagogical mastery, content knowledge, passion and support for students (Cohen, 1998; Stoller, 2000: 7-10).

2.24 DIFFICULTIES OF READING COMPREHENSION STRATEGY INSTRUCTION

One of the major problems of strategy instruction is that students may be unwilling to take the responsibility of their own learning. Moreover, they may be resistant to the use of new techniques while reading, or they may believe that they are already good readers with the strategies which they can apply. Learners' language proficiency level is also reported to influence the efficacy of strategy instruction (McDonough, 1995).

Another problem is choosing the strategies to emphasize in strategy instruction. One strategy may not be appropriate for all students due to their individual differences. Also, students can employ different strategies in various texts according to their changing purposes. Finally, students' existing strategy repertoire may be in conflict with the teacher's expectations, which may result in a mismatch in instruction (Grabe and Stoller, 2002).

There could also be some constraints due to the teacher's being inexperienced in strategy application and instruction. The nature of strategy instruction requires the teacher not only to be prepared for training, but also to provide scaffolding for students and be flexible during the implementation. It is essential for the teacher to check students' use of strategies and alter their techniques or approaches accordingly. Therefore, the teacher also needs to be trained beforehand to specialize in strategy instruction (Cohen, 1998).

2.25 GUIDELINES FOR EFFECTIVE READING COMPREHENSION STRATEGY INSTRUCTION

On the basis of strategy-instruction literature, the following guidelines for effective strategy instruction in classrooms are offered (Singhal, 2001):

1. The teacher must care about the processes involved in reading and studying, and must be willing to devote instructional time to them through direct strategy-instruction and modeling.

2. The teacher must do task analyses of strategies to be taught. In other words, he must think about how a particular strategy is best applied and in what contexts. The teacher can observe students as they read in order to determine their strengths and weaknesses in terms of strategy use, which in turn will help in providing effective and appropriate strategy instruction.

3. The teacher must present strategies as applicable to texts and tasks in more than one content domain so that strategies can be applied in a variety of reading situations and contexts.

4. The teacher must teach strategies over an entire year, not just in a single lesson or unit allowing strategic instruction to permeate the curriculum.

5. The teacher must provide students with opportunities to practice strategies they have been taught.

6. The teacher must be prepared to let students teach each other about reading and the studying process.

2.26 ROLE OF L1 AND L2 IN READING COMPREHENSION

It is not the case that our students are experiencing reading for the first time. In fact, they have experienced reading in their L1 for many years. Thus, they have some concepts of what reading is like. Since almost all the languages have written forms, it is quite natural to expect reading in those languages. Although the linguistic forms of languages are encoded differently, meaning is universal, and thus, the concept of reading can be expected to be similar in those languages. Because extracting intended

meaning from the text is essential, the skills, strategies, processes and procedures in reading in different languages can be considered to be nearly identical. Because of this commonality of languages, it can be concluded that the student who can read effectively in his native language can transfer effective reading skills and strategies to a foreign language. Although some research shows that L1 is usually criticized to interfere with foreign language acquisition, some other research shows that L1 also has facilitative effects on L2 learning. Therefore, in teaching reading in a foreign language, L1 can be employed to facilitate and speed up the process of teaching reading in a foreign language. Because it has been empirically established that the native language has a significant role in facilitating reading comprehension in L2, the student should be made aware of where, when, how, and how much, how often, and why they can use L1 in facilitating reading comprehension in L2.

Research with adult ESL readers has provided some interesting results about the connections between L1 and L2 reading. McLaughlin (1987: 57-70) found that not all advanced L2 readers engage in meaning-making strategies when reading in L2, although their syntactic and semantic knowledge suggests that they are quite capable of doing so. McLaughlin proposed the concept of “restructuring” to explain the ability of those who effectively transferred strategic behaviors across languages in learning contexts. According to Kern (1989: 135-149), meaning-making strategies, which may be well developed and automated in L1 reading processes, may not transfer automatically to L2 reading, but may need mediating mental processes. He proposed strategy instruction to bring already-possessed strategies of L2 learners into conscious awareness, so that such strategies can be used in an L2 context to enhance reading comprehension. In one experimental study, strategy training had a strong positive effect on L2 readers’ comprehension gain scores (Kern, 1989: 135-149).

Cook (1992: 560-584) argues that all second language learners access their L1 while processing an L2. She suggests that an L2 user does not effectively switch off an L1 while processing an L2, but has it constantly available. She also maintains that when working with second language learners, the teacher must not treat an L2 in isolation from an L1. In fact, according to her, one cannot do so because an L1 is present in L2 learners’ minds, whether the teacher wants it to be there or not. Thus, it can be concluded that L1 should not be regarded as intrusive, but the teacher should benefit it.

Cohen (1995: 99-113) used a survey given to bilingual and multilingual university students to explore factors influencing language of thought. He found that not only do people with access to two or more languages shift frequently between them, but that these shifts can be either unintentional (for example, it is easier to think in one language than another, and so the brain automatically shifts languages) or intentional (e.g., using another language to help understand the grammar or vocabulary of the target language).

From the overview of relevant studies, it can be concluded that reading in a second language is not a monolingual event. The second language reader has access to his first language and indeed uses this resource as a strategy to help himself to comprehend an L2 text. In fact, an L1 can be used as a valuable strategy in order to overcome obstacles in word recognition and propositional integration, which Haenggi and Perfetti (1994: 83-104) suggest are two important sources of limitations to reading comprehension.

Cummins (1990) maintains that an instructional focus on the development of dominant language literacy will have a positive impact on second language literacy. Also, according to Cummins' Interdependence Hypothesis (1979), a dynamic rationale exists for the utilization of the student's first language to assist in the formulation of second language literacy. Moreover, he maintains that once the student is literate in a primary language and verbally proficient in a second language, cognitive and academic literacy skills transfer to the student's second language. Some researchers support this transference issue. For example, Cummins (1989: 17-31) and Jimenez, Garcia, and Pearson (1996: 90-113) demonstrate that the student who reads well in his native language also reads well in a second language. This indicates that native language cognitive development may produce a more powerful level of English literacy as the student transfers prior learned native cognitive reading strategies to English reading situations.

Researchers such as Anderson (1994: 177-194) and Groebel (1980: 54-59) suggest that it is L1 reading ability rather than the degree of control of L2 that determines the reader's capacity to read in L2. They argue that successful L2 reading requires the transfer of old skills, rather than the learning of new ones. Similarly, the failure in L2 reading is viewed as directly attributable to poor reading ability in L1. in

this case, classroom instruction aimed at improving second language reading should focus on teaching good reading skills and strategies which are thought to be lacking in an L1, and thus should emphasize the universal features of the reading process and transfer of first language reading strategies.

2.27 MAIN DIFFERENCE BETWEEN SUCCESSFUL AND LESS SUCCESSFUL READERS

Because one of the main components of reading is readers, and because readers differ in their performance and achievement in reading comprehension, characteristics of successful and less successful readers can be discussed in order to reveal some factors which make good readers good readers, and less successful readers less successful readers. As a result of this comparison, problems of less successful readers can be diagnosed and underlying principles of reading comprehension can be revealed. Also, by revealing what skills and strategies skilled readers use, they can be made more aware of the processes which they pass through while reading, and they can improve their reading comprehension much further because some research suggests that even good readers use the skills and strategies unconsciously. Thus, making them aware of the processes which they undergo will make them much more successful in reading comprehension.

It is suggested that the main difference between successful and less successful readers is the ability to monitor comprehension during reading (Wray, 1994: 107-113). Comprehension monitoring refers to processes which are presumed to check reading comprehension, to identify comprehension failures, and to take steps to correct the gaps or contradictions in the reader's understanding of the text. In this view, less successful readers' comprehension may be improved if their awareness of reading difficulties is increased by promoting strategies for checking and evaluating comprehension. A number of instructional interventions which focus on the development of this ability have been suggested. For example, Palincsar and Ransom (1988: 784-789) advise teachers to evaluate the metacomprehension and monitoring knowledge of their students and to teach strategies which promote or enhance monitoring during reading. Wray (1994: 112) also recommends a variety of strategies which are intended to enhance metacognitive strategies and suggests that the key to enhancing students' understanding in reading is to develop their abilities to be more aware of their reading. Another view,

proposed mainly by cognitive psychologists, is that the most important difference between successful and less successful readers is their ability to construct a complete, accurate, and integrated representation of the text. In this view, less successful readers' main difficulty is that they construct an incomplete or poor quality representation of the text (Cain and Oakhill, 1999: 489-503). The representation of the text may be inadequate because it is missing important information entirely, or because it is only a superficial representation of the meaning of the text and lacks sufficient inferences and integration of ideas. If less successful readers' difficulties are related to weak construction of a good representation of text information, then instruction which helps less successful readers construct a more accurate and integrated representation of the text will be an effective intervention for less successful readers. For example, strategies which facilitate making inferences about how concepts are related, and about what can be expected to happen, or facilitate identifying the most important concepts may promote the construction of a more integrated representation of the text.

Successful and less successful readers also differ in their use of strategies. Recent research has shown that there is not a specific group of strategies used by successful readers and defined as beneficial to comprehend texts better. Therefore, strategies cannot be categorized as good or bad. However, what makes them useful is related to readers' application. The basic element which differentiates successful readers' strategy use from that of their less successful peers is the recognition of when and how to use appropriate reading strategies in different combinations flexibly according to their changing needs and task demands. Both declarative knowledge, 'knowing that', and procedural knowledge, 'knowing how' are required for strategic reading, but the awareness of how to use a strategy precedes the recognition of which strategy to use. This feature of strategic reading has a positive impact on learners' comprehension performance as well (Kern, 1989: 135-149; Anderson, 1991: 460-472; O'Malley and Chamot, 1994).

Successful readers choose a reading approach suitable for their aims and the text. When they are reading, they summarize and read for general meaning. They can check whether they have understood the text by using textual clues and they are aware of the reading strategies they are using. Also, they use a variety of strategies and use them flexibly and select them according to the text which they are reading. Moreover, they

are more effective than less successful readers in using metacognition. They realize the problem in the text and solve it. Due to these properties of theirs, they are called strategic readers (Block, 1986: 463-494; Garner, 1987).

However, less successful readers tend to focus on reading as a decoding process rather than as a meaning-getting process. They do not use different strategies when they are reading for different purposes. According to them, there is only one type of reading. They do not feel safe if they do not have a bilingual dictionary. Instead of guessing the meaning of an unknown word, they look it up in a dictionary. They read by translating every word into their native language. They try to understand the text using knowledge of grammar. They do not give importance to how ideas are organized in the text and what the general idea of the text is (O'Malley and Chamot, 1994; Knudsen, 2001: 14-16). For example, Perkins and Bratten (1992: 81), and Nassaji (2003a: 261-276) observed that less proficient L2 readers tended to focus more on bottom-up strategies while more proficient readers tended to use a greater mix of bottom-up and top-down strategies.

2.28 EFFECT OF GENDER ON READING COMPREHENSION STRATEGY

Research suggests that there are individual differences in strategy use. For example, females seem to use more strategies than males (Ehrman and Oxford, 1989: 253-265; Oxford and Nyikos, 1989: 291-300), or they use strategies differently (Bügel and Buunk, 1996). For example, Oxford and Nyikos (1989: 296), who looked at the strategies used by 1200 university students, concluded that sex differences had a profound influence on strategy use, and that females used strategies more frequently than males. Ehrman and Oxford (1989: 253-265) concluded that women at the Foreign Service Institute definitely reported more use of strategies. Green and Oxford (1995: 261-297), reporting on a study of 374 students at the University of Puerto Rico, also concluded that females used strategies significantly more often than males. Females reported a high use of memory, metacognitive, affective and social strategies. In addition, according to Peacock and Ho (2003: 179-200), females reported a higher use of strategies such as memory, compensation, metacognitive, affective, and social than males.

CHAPTER III

3. METHOD OF THE STUDY

In this section, the research model, the population and sample of the research, the collection of the data, the method of think-aloud protocols, the qualitative and quantitative analysis of data are described. Also, the rationale for the use of more than one instrument and the administration order of the instruments are given.

3.1 RESEARCH MODEL

In the study, a single group pretest and posttest research model was used. The student group was the first year students who took the course Advanced Reading and Writing II at Gazi University Faculty of Education, the ELT department. The student group's previous performance, which was assessed by the pretest was compared with the same student group's later performance, which was assessed by the posttest. One-group pretest-posttest design shows the change in the subjects' performance. In this type of design, the students are used as their own control group compared with themselves at an earlier point in time (Krathwohl, 1998: 509-510). In the research both a qualitative method and a quantitative method were applied. The qualitative method was applied to the data which emerged from the Think-aloud protocols and the students' responses to the comprehension questions in the text 'Warning on Global Warming' in order to identify what skills and strategies the students employed while answering the questions in the Think-aloud protocols, and how they utilized those skills and strategies in answering the comprehension questions in the text 'Warning on Global Warming'. The quantitative method was applied to the data which were obtained by the texts 'Warning on Global Warming', 'The Real Thing?', and 'Nuclear Weapons'.

3.2 POPULATION AND SAMPLE

The population of the study was approximately 250 first year students at Gazi University Faculty of Education English Language Teaching Department. The sample of the study was the 26 ELT students from the class 1-01, who took the course Advanced Reading and Writing II in the spring semester of the 2006–2007 academic year. The sample of the study was determined through the random selection method. A

little more than 10 per cent of the population was included in the research. Regarding sample size no precise number is given in the literature. Sample size depends on the four principles of sampling. These are: (a) how precise do you want to be about the population?, (b) how sure do you want to be of your answer?, (c) how much variation is there in what you are studying?, and (d) how small an effect do you want to sense in contrast to the normal variation in the sample units? (Krathwohl, 1998: 166).

3.3 RATIONALE FOR USING MORE THAN ONE INSTRUMENT

Using more than one instrument increases the validity and reliability of findings, ensures triangulation of data and reveals reading strategies used by students more effectively and reliably. Therefore, it is useful to employ multiple data collection measures such as questionnaires, interviews and Think-aloud protocols in order to make research valid and reliable. Thus, correlating the results of more than one instrument to assess strategies can give more detailed insights about students' strategy profiles and needs in their reading processes (Gass and Mackay, 2000).

3.4 RATIONALE FOR THE ADMINISTRATION ORDER OF THE INSTRUMENTS

The students in the sample were given the questionnaire first. The reason for giving the questionnaire first was that our expectation that they would give favorable responses to it and their total scores in the questionnaire would be quite high. This expectation was verified by the results of the questionnaire. The idea behind it was that students would initially agree with using and applying all the knowledge sources in the questionnaire, and this was the expected case. However, the fact that the test on 'Warning on Global Warming', which functioned both as the pretest, and the test to diagnose reading comprehension difficulties, was given after the questionnaire to reveal if the students actually used and applied all the knowledge sources in answering the comprehension questions in the test because the reported knowledge source and/or strategy use does not usually correspond to actual knowledge source and/or strategy use. Our expectation was that they would not benefit from those knowledge sources, and this expectation was confirmed. Thus, with these two instruments we cross-checked what reading skills and strategies and knowledge sources they actually used in a comprehension task. This validated both the research and the questionnaire and the test. Also, the findings of the study were validated and made reliable.

3.5 COLLECTION OF DATA

In order to collect data for the study, a questionnaire, a pre-test (Warning on Global Warming), a think-aloud method, two reading strategy instruction tests (Warning on Global Warming and The Real Thing?), a post-test (Nuclear Weapons) were applied.

The Reading Skills and Strategies Questionnaire, the test on ‘Warning on Global Warming’, which was used as a pretest, and the think-aloud protocols were respectively administered to the students in the sample who participated in the research. The application of these instruments was considered at the beginning of the spring semester of the 2006–2007 academic year. However, due to some reasons beyond the researcher’s control, these instruments were applied within the last four weeks of the spring semester of the 2006–2007 academic year. Therefore, the reading skills and strategies instruction was given in the autumn semester of the 2007–2008 academic year.

The Reading Skills and Strategies Questionnaire was in the form of Likert type, which consisted of 50 items with options (a) “I completely agree”, (b) “I agree”, (c) “I partially agree”, and (d) “I do not agree at all”. The questionnaire comprised questions to uncover what general and inferential reading skills and strategies the students would employ. The items in the scale examined knowledge of the world, background knowledge, support knowledge, linguistic context, sentence functions, linguistic competence (grammar, morphology, syntax, unity in a text, coherence, cohesion, and lexicology), communicative competence, pragmatic competence, and reading skills and strategies. The scale was also intended to reveal what linguistic and non-linguistic knowledge sources, reading skills, what cognitive and metacognitive reading strategies the students benefit from, whether they are aware of these knowledge sources, whether they use all these knowledge sources and cognitive and metacognitive strategies as required and appropriately, and whether they read the text by using appropriate reading strategies. The total 150 items in the scale were reduced to 50, and the items were ordered under certain titles in line with the criticisms and suggestions of the advisor. Before the administration, the questionnaire was submitted to the views of experts, and by the views of experts it was concluded that the scale was valid and reliable. Thus, following these operations on the scale, it was administered to the students in the spring

semester of the 2006–2007 academic year. The points scored in the scale were calculated for each student. The points of all the students were added up and the mean was calculated. The items in the scale were assessed out of 100.

In order to measure the first year students' general and inferential reading skills and strategies who took the course Advanced Reading and Writing II at Gazi University Faculty of Education English Language Teaching Department, a pretest was applied. The text used was 'Warning on Global Warming' consisting of 16 items. The test was taken from the web page <http://www.edict.com.hk/vlc>. The text was adapted from South China Morning Post. The pre-test comprised questions to uncover how the students would in fact employ general and inferential reading skills and strategies. Some items were taken off the test and some items were inserted into the test in line with the criticisms and suggestions of the advisor. The test was submitted to the views of experts and it was found to be valid by the views of experts. The reliability of the test was investigated in a group of students other than the sample. The reliability analysis was performed by using the SPSS version 11.0 (Statistical Programs for Social Sciences). A reliability coefficient of 0,70 is accepted to be sufficient, and the reliability coefficient for the test was 0,7549. Thus, after these procedures, the pretest was administered in the spring semester of the 2006–2007 academic year. The points scored in the pretest were calculated for each student. The points of all the students were added up and the mean was calculated. The items in the scale were assessed out of 100.

In order to reveal what cognitive processes the students went through while reading the text, the think-aloud method was applied. The think-aloud method is a technique of data collection in which a subject is stopped at certain points or intervals while solving a problem (i.e. finding out cognitive and/or metacognitive strategies) in order to understand how he is solving it. There were 30 questions in the think-aloud protocols, which were prepared by the researcher. The questions were made up of the items which examined the students' thinking processes, knowledge sources such as background knowledge, grammar, and vocabulary, and the like which were expected to be utilized in the pretest 'Warning on Global Warming', and general and inferential reading skills and strategies. The think-aloud method was intended to reveal the students' awareness of general and inferential reading skills, strategies and their practical use. Some items were taken taken off the protocols, and some items were

added to the protocols in line with the criticisms and suggestions of the advisor. Then, the think-aloud protocols were submitted to the views of experts and they were decided to be valid and reliable by the views of experts. Following these procedures, the think-aloud protocols were administered in the spring semester of the 2006–2007 academic year. Each student was interviewed approximately for 30 minutes. All the interviews with the students performed through think-aloud protocols were tape recorded and then transcribed verbatim.

Because negative results emerged from the Reading Skills and Strategies Questionnaire, the pretest, and the think-aloud protocols, it was decided to offer the students who participated in the research reading skills and strategies instruction in order to improve their general and inferential reading skills and strategies. In the reading skills and strategies instruction, the texts ‘Warning on Global Warming’, which was used as a pretest, and the text ‘The Real Thing’ were used. The text ‘The Real Thing?’ consisted of 16 items. The test was taken from the web page <http://www.edict.com.hk/vlc>. The text was adapted from South China Morning Post. Some items were taken off the test and some items were inserted to the test in line with the criticisms and suggestions of the advisor. The test was submitted to the views of experts and it was decided to be valid by the views of experts. The reliability of the test was investigated in a group of students other than the sample. The reliability analysis was performed by using SPSS version 11.0 (Statistical Programs for Social Sciences). A reliability coefficient of 0,70 is accepted to be sufficient. The reliability coefficient for the test was 0,8193.

The instruction was given by the researcher at Gazi University Faculty of Education ELT Department at three consecutive weekends. The students in the sample who participated in the research received ten hours of reading skills and strategies instruction. In the instruction, the questions asked in the Reading Skills and Strategies Questionnaire were answered both by the researcher and the students by discussing the answers and relating them to the two instruction texts. The instruction was performed in the form of presentation, modeling and mutual discussion with the students who participated in the instruction. How, when, where, how often and why to utilize the knowledge sources, skills and strategies mentioned in the items of the questionnaire were demonstrated by directly applying them on the two texts. Furthermore, the

answers to the questions asked in the think-aloud protocols were given by relating the answers to the texts used in the instruction. In answering these questions, again presentation, modeling and mutual discussion with the students were performed. Finally, the comprehension questions of the two texts were answered together with the students in the instruction through presentation, asking questions-answers, modeling and mutual discussion. In answering the questions of the two texts, the researcher explained in detail what knowledge sources, general and inferential skills and strategies the students should benefit from and how they should apply these in comprehending the two texts.

After this reading skills and strategies instruction was completed, the students who took the instruction were given a posttest in order to see how much they benefited from the instruction, and whether they improved their general and inferential reading skills and strategies. The aim of the post-test, which followed a period of in-class application of strategy instruction was to depict how much this instruction contributed to the improvement of the students' knowledge sources, and general and inferential skills and strategies which were measured by the questionnaire, pre-test and think-aloud method. The text which was used as the posttest was 'Nuclear Weapons' consisting of 16 items. The test was taken from the web page <http://www.edict.com.hk/vlc>. The text was adapted from South China Morning Post. Some items were taken off the test and some items were inserted to the test in line with the criticisms and suggestions of the advisor. The test was submitted to the views of experts and it was decided to be valid by the views of experts. The reliability of the test was investigated in a group of students other than the sample. The reliability analysis was performed by using SPSS version 11.0 (Statistical Programs for Social Sciences). A reliability coefficient of 0,70 is accepted to be sufficient. The reliability coefficient for the test was 0,7153. Thus, after these procedures, the posttest was administered at the end of the autumn semester of the 2007–2008 academic year. The points scored in the scale were calculated for each student. The points of all the students were added up and the mean was calculated. The items in the scale were assessed over 100.

3.6 METHOD OF THINK-ALOUD PROTOCOLS

Think-aloud is a technique of data collection in which a subject solves a problem, and he is stopped by an experimenter at certain points while solving the problem and asked questions in order to understand how he solves the problem.

Thinking aloud is defined as verbalizing what one is thinking of while attending to a task. In this technique, people are asked to think aloud while solving a problem and the resulting verbal protocols are analyzed. As a form of verbal report, think-aloud protocols are considered to be an appropriate way to identify cognitive processes in the reader's mind which occur during reading. Learning processes can be revealed easily by Think-aloud protocols because they are still available in the short-term memory (Ericsson and Simon, 1984; Pressley and Afflerbach, 1995). Their success in measuring subjects' comprehension monitoring skills has also been shown (Block, 1992: 319-343).

However, think-aloud protocols are not without criticisms. They sometimes interfere and interrupt the reading process of readers. Thus, the subject may give a modified version of what actually he is thinking. Because cognitive processing occurs unconsciously, it is not possible to identify it accurately. There are also cultural, gender and learning style issues which might influence the process of thinking aloud (O'Malley and Chamot, 1990: 91; Oxford, 1996: 97; Cohen, 1998; Branch, 2000).

A significant limitation regarding think-aloud protocols is the language used to express verbal reports. In EFL contexts, where the command of a foreign language is only partial, there is a concern that using this language for reporting on the reading process might interfere with and hinder comprehension. Certain studies show that the language used during reporting affected the production of verbal reports of subjects. Thus, it was found that subjects recalled more and demonstrated more use of higher-level processing in their native language than in a second or foreign language (Donin and Silva, 1993: 373-401). Also, according to Barnett (1989: 45), students may not be able to show their comprehension of the text due to their inability to express themselves well in English in their recall protocols. Therefore, taking this significant limitation into account, the students in the sample were asked to report their thought processes in their native language, Turkish in answering the questions in the think aloud protocols and the comprehension questions in the text 'Warming on Global Warming'.

CHAPTER IV

4. RESULTS OF THE STUDY

The following results were obtained from the measures of the reading skills and strategies questionnaire, pretest, think-aloud protocols, and posttest.

1. All the students scored high points in the reading skills and strategies questionnaire, and this was an expected result. The mean of the students' scores in the questionnaire was 75,538461. According to the results obtained from the questionnaire, all the hypotheses in the research were verified. Accordingly, the students were expected to agree that they had to utilize the necessary knowledge sources and reading skills and strategies addressed in the questionnaire while reading the text, and they were expected to score quite high in the questionnaire. Their agreement on these points was proved by their high scores in the questionnaire. However, they were expected to possess the necessary knowledge sources, but not to resort to appropriate reading skills and strategies while reading the text, not to suit reading skills and strategies to their reading purpose, not to employ cognitive and metacognitive skills and strategies in justifying their use of and preference for certain reading skills and strategies to show that they had comprehended the text, and to be incompetent in general and inferential reading skills and strategies.

2. Considering the results of the pretest, almost all the students' scores in the test were low, and this was an expected result. The mean of the students' scores in the pretest was 44,538462. According to the results obtained from the pretest, the hypotheses in the research were verified. Accordingly, the students were expected to possess the necessary knowledge sources, but not to resort to appropriate reading skills and strategies while reading a text, not to suit reading skills and strategies to their reading purpose, not to employ cognitive and metacognitive skills and strategies in justifying their use of and preference for certain reading skills and strategies to show that they had comprehended the text, and to be incompetent in general and inferential reading skills and strategies.

3. According to the results obtained from the interviews with the students performed through Think-aloud protocols, the same hypotheses tested in the pretest were also verified in the think-aloud protocols. Accordingly, the students were expected to possess the necessary knowledge sources; but not to resort to appropriate reading skills and strategies while reading the text; not to suit reading skills and strategies to their reading purpose; not to employ cognitive and metacognitive skills and strategies in justifying their use of and preference for certain reading skills and strategies to show that they have comprehended the text; and to be incompetent at general and inferential reading skills and strategies.

4. The analysis of the think-aloud protocols indicates that the students are certain to possess the necessary knowledge sources, skills and strategies in reading comprehension. However, they are not aware of those knowledge sources, skills and strategies. Because of this unawareness, they do not feel necessary to consult them. Even though they happen to use them, they do not benefit from them consciously; in other words, they do not know where, when, how, how often, why, etc to utilize them. Moreover, they rely on bottom-up strategies more often. Thus, they cannot process the text deeply but superficially. The most significant result is that the students' inability to make inferences is not the cause of their failure in reading skills and strategies. However, their inability to make inferences stems from their incompetences in knowledge sources, skills and strategies in reading. Their serious lack of metacognitive skills and strategies can also be said to underlie their failure in reading comprehension. Related to unawareness of knowledge sources, skills and strategies in reading comprehension, Bowyer-Crane and Snowling (2005: 190-198) offer a striking explanation for readers' poor performance on comprehension. Accordingly, readers with comprehension difficulties are in possession of the knowledge needed to answer the questions, but they are unaware of the need to draw on that knowledge when the questions are presented to them. In other words, in line with the findings of Cain and Oakhill (1999), the cause of poor performance lies in the strategies which are used during reading, and in the ability to use general knowledge to interpret the text.

5. According to the results of the posttest, all the students' scores in the test were high, and this was an expected result. The mean of the students' scores in the posttest was 47,105769. The hypothesis tested in the posttest was also verified. Accordingly, the

students were expected to display noticeable improvement in the above mentioned strategies and skills at the end of a period of instruction comprising practical work relevant to inferential skills within efficient reading strategies.

4.1 QUALITATIVE ANALYSIS OF THE DATA

The qualitative data obtained from the think-aloud protocols were first transcribed by the researcher, summarized in the form of sentences, were expressed in short sentences and phrases. The common strategies were identified which were used by the students while reading the text ‘Warning on Global Warming.’ In the following table, the questions asked in the think-aloud protocols and the common strategies identified are given in table 3.7.1.1.

Table 4.1.1. The Common Reading Strategies

THE QUESTIONS ASKED IN THE THINK-ALoud PROTOCOLS	THE COMMON STRATEGIES IDENTIFIED FROM THE THINK-ALoud PROTOCOLS
1 Tell how you read the text.	- Reading the text twice. First reading quickly to get a general idea of the text not getting into details. Second reading slowly to comprehend the text and to understand the main idea by focusing on meaning, getting into details and learning the meaning of unknown words. - First looking at the title, skimming the text to get a general idea about the text. Paying attention to the underlined and bold words, and then reading in detail to comprehend the text. Reading the difficult parts again and again. - First reading the text quickly to get a general idea about the text. Underlining the parts considered to be important because those parts are more important than the other parts and getting the main idea is very important. Second reading the text in detail to find the answers to the comprehension questions. - Reading the comprehension questions first in order to establish in advance where to find the relevant information in the text. In this way selecting the parts to pay attention to in the text. This type of reading helped to find the relevant information easily. - Reading the text by paying attention to every word and sentence to understand them. Trying to understand every

	grammar structure. The reason for reading in this way is that there are questions to answer. Trying to extract the meaning of every unknown word. - Reading to comprehend the text by translating into the native language unconsciously.
2 Did you read the text in detail or read it quickly to get a general idea?	- Reading in detail to comprehend the text fully - Reading in detail to get the main idea - Reading in detail the parts which are difficult to understand - Reading in detail to answer the comprehension questions - Reading word by word to answer the comprehension questions - Reading in detail to understand everything in the text
3 What do you think comprehending a text means?	Comprehending a text means understanding the content and topic, the main idea, supporting details, certain details, cause-effect relationships, the gist by reading first and the last paragraph, the relationships among paragraphs, and key words, getting the actual message, making inferences, identifying the purpose of the text and the writer, being able to ask suitable questions about the text, and finding the answers to the questions asked about the text.
4 Do you ask pre-questions before reading the text to understand it better?	- Reading considering for what purpose I should read. - Reading by asking questions helps understand the text better. - Asking questions about the difficult parts to understand them. - Not asking any questions about the text. - Example questions are: what does the text actually mention, for what purpose does it mention, why is it written?

5 Do read the text and immediately after that answer the comprehension questions?	- First making sure of having comprehended the text and then answering the comprehension questions. - Reading the text again and again until comprehending it and then answering the comprehension questions. - Reading the text first, then looking at the questions, and then referring to the text again to understand what the comprehension questions want and to keep the information in the mind. - Skimming the text and then reading the questions to keep them in the mind. - Looking at the questions and unknown words to know where to look for certain information in the text. - Referring to the text for the information which could not be remembered while answering the questions. - Reading the questions first because the text can be read carefully, the answers to the comprehension questions can be found directly and easily, and one can have expectations about the content of the text.
6 How are you sure of the correctness of the responses to the comprehension questions?	- Finding the synonymous, congruent words, sentences, and parallel and key expressions in the text and questions and underlining them. - Checking the congruence of the information in the text and questions over and over again. - Turning to the relevant point(s) in the text again and again and commenting on it and/or them. - Choose the most congruent option with the information in the text. - Finding equivalent words or expressions in the text - Going over the answers again and again. - Understand the context and knowing the target language. - Matching the information in the text and questions through grammar structures and synonymous words.
7 What knowledge sources do you use to comprehend the text?	- Making use of background knowledge, synonyms, antonyms, context, prefixes, suffixes, word class, and the conjunctions between the sentences, modal verbs, translation, and reading skills such as skimming and

	scanning. - Finding out the relationships between and/or among sentences and the paragraphs. - Paying attention to the relationships of a particular word with other words. - Looking at the title and activating background knowledge relevant to the text. - Remembering information in the books, magazines and newspapers and on TV which could be related to the topic of the text. - Applying the background knowledge to the text and finding a match between the information in the text and background knowledge. - Reading the previous sentence and following sentences in order to understand a particular sentence - Breaking a complex sentence into meaningful parts.
8 Do you try to find out the type of the text?	- Paying attention to use of certain grammar structures, technical terms, figures, statistics, findings of research, views of experts, certain things, i.e. frequent mention of danger, arguments in the text. - Considering the function of the text. - Thus, having expectations about a particular type of the text, and facilitating comprehension by activating background knowledge about the subject of the text, understanding the organization of the information in the text, making predictions, etc.
9 Did you have difficulty in understanding the text?	- Having difficulty with the grammar structures, unknown words, specialized words, complex sentences, academic language, parts written in italic, too many details, figures, proper names, and lack of background knowledge. - Having difficulty with finding the relevant information in the text required by the questions, and choosing the correct option due to the similarity of the distracters in meaning. - Thus, slowing down comprehension, so reading again and again.
10 Which parts are easy	- The parts where there were known words and few details, simple and short sentences, and known grammar

and/or difficult in the text?	structures were easy. - The parts where the students had enough background knowledge were easy. - The first paragraph was easy because the subject to be discussed was introduced explicitly and there was simple information. - The parts where there were complex sentences were difficult.
11 Do you think the difficult parts prevent you from understanding the text?	- The difficult parts prevent understanding the text, so wrong answers were given. - The difficult parts cause to spend too much time, prevent from making connections between paragraphs. - Skipping the difficult parts and trying to understand them in the other parts.
12 Do you use your background knowledge to understand the text?	- Knowing the bad effects of the global warming such as changes in climates, melting of glaciers, emission of too much carbon dioxide to the atmosphere, paying attention to the title; thus, expecting the mention of negative things, and making cause-effect relationships from the background knowledge and applying them to the text facilitated comprehension
13 Do you think all the information in the text is equally important or is certain information important?	- Not all information in the text is important. Focusing on the effects of the global warming on the word, the precautions to be taken, experts' views, answering the questions beginning with what, when and why, the information in the first and last paragraphs of the text, cause-effect relationships, certain key words, warnings are important information. - All information in the text has equal significance.
14 How do you find the main idea and supporting details?	- Looking at the title and the points focused on the most, and combining the general statements, examples, proofs, negative effects in the text. - Not pay attention to the main idea and supporting details.
15 Do you take notes or underline certain parts in the text?	- Taking notes and underlining certain parts to determine important and difficult points, unknown words, key points, supporting details, to find the answers quickly and to follow the lines of the text easily
16 Do you think every	- Paragraphs give a message, mention different aspects of

paragraph in the text has a function?	the same topic such as an introduction or a summary, and give supports and proofs. - Understanding the function of each paragraph depends on understanding the grammar structures and vocabulary in each paragraph.
17 Do you think there are connections between the paragraphs?	The connections could be in the form of giving information from general to specific or vice versa, mentioning different and various aspects of the global warming such as cause-effect relationships, examples, figures, views of experts, theses and proofs, research findings, and dwelling on the same topic.
18 Do you think there are connections between the sentences?	- One sentence supports or rejects the other. - One sentence puts forward a thesis, the second sentence gives supports and examples, and the third sentence gives proofs. - There are cause-effect relations, concession, addition, temporal, use of conjunctions, etc. - Global warming is mentioned in the first sentence, and its effects on Hong Kong in the second sentence.
19 Do you think every sentence in the text has a function?	The functions of sentences such as informing, warning, supporting, exemplifying, convincing and explaining help understand the message.
20 Do you think long and complex sentences prevent you from understanding the text?	- Complex sentences make the text difficult to understand. - They are demotivating, cause to spend too much time on reading and miss the meaning and connection when you come to the end of them, slow down reading speed, and distract attention. - As a solution, translating the complex sentences to understand them, breaking them into meaningful units, and look at the previous and following sentences.
21 Do the unknown words in the text prevent you from understanding the text?	- Getting the meaning of the unknown words roughly from the context. - If they are key words, they make it difficult to understand. - Focusing on the sentences in which the unknown word occurs. - Reading the sentences where there are unknown words

	again and again. - Looking at the parts of speech, roots and affixes. - Using the context, - Looking up in a dictionary. - Looking at the other words. - Translating into Turkish.
22 Do you think you have to know all the words to understand the text?	- One does not have to know every word to understand the text. - The meaning of unknown words can be got from the context, root and affix relations, and parts of speech. - What is important is to understand the message being conveyed.
23 Do you translate certain parts in the text into your native language to understand the text?	- Translating the difficult parts in the text to understand and think better in the native language. - Translating long and complex sentences and some sentences having unknown grammar structures. - Translating in order to keep the information in the text in the mind and to make comments. - Translating the sentences similar in meaning to make meaning clear. - I translate because I believe we think in our native language.

4.2 QUANTITATIVE ANALYSIS OF THE DATA

The data which were collected through the texts ‘Warning on Global Warming, The Real Thing?, and Nuclear Weapons’ were analyzed by the Paired Samples t Test and Independent Samples t Test. In the tables below are shown the number of the subjects, arithmetic means, and the results of the Paired Samples t Test and Independent Samples t Test.

**Table 4.2.1 The Number and Arithmetic Means of the Subjects for the Texts
‘Warning on Global Warming and The Real Thing?’**

Warning on Global Warming	The Real Thing?
N = 26	N = 26
M = 44,538462	M = 58,673077

When the means are examined, there is some amount of difference (14,134615) between the arithmetic means for the texts ‘Warning on Global Warming and The Real Thing?’. The Paired Samples t Test was used to check whether the difference between the texts is significant, in other words, to establish whether the students made any progress in general and inferential reading skills and strategies as result of the reading skills and strategies instruction which was continuing at the time this analysis was performed. The results of the Paired Samples t Test are given in table 4.1.2.2.

Table 4.2.2 The Results of the Paired Samples t Test for the Texts ‘Warning on Global Warming and The Real Thing?’

Paired Samples t Test	
Mean Difference = 14,134615	Significance = 0,0003

When the figures are checked, it is seen that the arithmetic mean difference between the texts is statistically significant. $P < 0,05$. Considering this result, it can be said that the students who participated in the reading skills and strategies instruction began to benefit from the instruction and made some progress in general and inferential reading skills and strategies.

**Table 4.2.3 The Number and Arithmetic Means of the Subjects for the Texts
‘Warning on Global Warming and Nuclear Weapons’**

Warning on Global Warming	Nuclear Weapons
N = 26	N = 26
M = 44,538462	M = 57,807692

When the means are examined, there is some amount of difference (13,26923) between the arithmetic means for the texts ‘Warning on Global Warming and Nuclear Weapons’. The Paired Samples t Test was used to check whether the difference between the texts is significant, in other words, to establish whether the students benefited from reading skills and strategies instruction and made any progress in general and inferential reading skills and strategies as result of the reading skills and strategies instruction which had been completed at the time the test ‘Nuclear Weapons’ was given. The results of the Paired Samples t Test are given in table 4.1.2.4.

Table 4.2.4 The Results of the Paired Samples t Test for the Texts ‘Warning on Global Warming and Nuclear Weapons?’

Paired Samples t Test	
Mean Difference = 13,26923	Significance = 0,0013

When the figures are checked, it is seen that the arithmetic mean difference between the texts is statistically significant. $P < 0,05$. Considering this result, it can be said that the students who participated in the reading skills and strategies instruction benefited from the instruction and made some progress in general and inferential reading skills and strategies.

Table 4.2.5 The Number and Arithmetic Means of the Females and Males for the Text ‘Warning on Global Warming’

Warning on Global Warming	
Females = 18	Males = 8
M = 42,444444	M = 49,25

When the means are examined, there is some amount of difference (6,805556) between the arithmetic means of the females and the males for the text ‘Warning on Global Warming in favor of the males. The Independent Samples t Test was used to check whether the difference between the females and the males is significant, in other words, to establish whether the females or the males were good at general and inferential reading skills and strategies before the reading skills and strategies instruction which had not begun at the time the test ‘Warning on Global Warming’ was given. The results of the Independent Samples t Test are given in table 4.1.2.6.

Table 4.2.6 The Results of the Independent Samples t Test for the Females and Males for the Text ‘Warning on Global Warming’

Independent Samples t Test	
Mean Difference = 6,805556	Significance = 0,198

When the figures are checked, it is seen that the arithmetic mean difference between the females and the males for the text is not statistically significant. $P > 0,05$. Considering this result, it can be said that the females and males were equal in general and inferential reading skills and strategies before the reading skills and strategies instruction was given although there is a small amount of difference in favor of the males.

Table 4.2.7 The Number and Arithmetic Means of the Females and Males for the Text ‘The Real Thing?’

The Real Thing?	
Females = 18	Males = 8
M = 63,125	M = 57,277777

When the means are examined, there is some amount of difference (5,845223) between the arithmetic means of the females and the males for the text ‘The Real Thing’ in favor of the females. The Independent Samples t Test was used to check whether the difference between the females and the males is significant, in other words, to establish whether the females or the males benefited more from reading skills and strategies instruction and made more progress in general and inferential reading skills and strategies as result of the reading skills and strategies instruction which was continuing at the time the text ‘The Real Thing?’ was given. The results of the Independent Samples t Test are given in table 4.1.2.8.

Table 4.2.8 The Results of the Independent Samples t Test for the Females and Males for the Text ‘The Real Thing?’

Independent Samples t Test	
Mean Difference = 5,845223	Significance = 0,352

When the figures are checked, it is seen that the arithmetic mean difference between the females and the males for the text is not statistically significant. $P > 0,05$. Considering this result, it can be said that the females and males who participated in the reading skills and strategies instruction benefited almost equally from the reading skills and strategies instruction and made almost equal progress in general and inferential reading skills and strategies although there is a small amount of difference in favor of the females.

Table 4.2.9 The Number and Arithmetic Means of the Females and Males for the Text ‘Nuclear Weapons?’

Nuclear Weapons	
Females = 18	Males = 8
M = 55,944444	M = 62

When the means are examined, there is some amount of difference (6,055556) between the arithmetic means of the females and the males for the text ‘Nuclear Weapons’ in favor of the males. The Independent Samples t Test was used to check whether the difference between the females and the males is significant, in other words, to establish whether the females or the males benefited more from reading skills and strategies instruction and made more progress in general and inferential reading skills and strategies as result of the reading skills and strategies instruction which had been finished at the time the test ‘Nuclear Weapons’ was given. The results of the Independent Samples t Test are given in table 4.1.2.10.

Table 4.2.10 The Results of the Independent Samples t Test for the Females and Males for the Text ‘Nuclear Weapons’

Independent Samples t Test	
Mean Difference = 17,430556	Significance = 0,287

When the figures are checked, it is seen that the arithmetic mean difference between the females and the males for the text is not statistically significant. $P > 0,05$. Considering this result, it can be said that the females and males who participated in the reading skills and strategies instruction benefited almost equally from the reading skills and strategies instruction and made almost equal progress in general and inferential reading skills and strategies although there is a small amount of difference in favor of the males.

Table 4.2.11 The Number and Arithmetic Means of the Females and Males for the Questionnaire ‘Reading Skills and Strategies’

Nuclear Weapons	
Females = 18	Males = 8
M = 74,888888	M = 76,875

When the means are examined, there is some amount of difference (1,986112) between the arithmetic means of the females and the males for the questionnaire ‘Reading Skills and Strategies’ in favor of the males. The Independent Samples t Test was used to check whether the difference between the females and the males is significant, in other words, to establish whether the females or the males benefited more from the items in the questionnaire in order to improve their general and inferential reading skills and strategies as result of the posttest ‘Nuclear Weapons’. The results of the Independent Samples t Test are given in table 4.1.2.12.

Table 4.2.12 The Results of the Independent Samples t Test for the Females and Males for the Questionnaire ‘Reading Skills and Strategies’

Independent Samples t Test	
Mean Difference = 1,986112	Significance = 0,426

When the figures are checked, it is seen that the arithmetic mean difference between the females and the males for the questionnaire is not statistically significant. $P > 0,05$. Considering this result, it can be said that the females and males who answered the questionnaire benefited almost equally from the items in the questionnaire in order to improve their general and inferential reading skills and strategies as result of the posttest ‘Nuclear Weapons’ although there is a small amount of difference in favor of the males.

CHAPTER V

5. FINDINGS OF THE STUDY

In this section, are given the findings which emerged from the analysis of the data obtained through the qualitative and quantitative data collection measures.

5.1 QUALITATIVE FINDINGS

The main qualitative findings were obtained through the reading strategies questionnaire and Think-aloud protocols in which the students reported their strategies. The questionnaire and Think-aloud protocols were conducted in relation to the pretest 'Warning on Global Warming'. According to the results of the questionnaire, the students responded to the items favorably. However, in order to see whether the students actually used general and inferential reading skills and strategies as they had responded to the items in the questionnaire, after the pretest, the Think-aloud method was applied. According to the results of the pretest and Think-aloud protocols, the students' real performance in reading comprehension was contrary to what they had reported in the questionnaire. In other words, the students failed to exhibit effective reading performance according to the results of the pretest and think-aloud protocols. The qualitative findings are the following:

1. By the results of the questionnaire, the students read texts in an ideal way. Accordingly, they skim the text to get the general idea, and then read the text paying attention to certain details to find the main idea by looking at the title, underlined and bold parts. Very few students read by paying attention to every detail to understand every word and grammar structure and by translating into the native language. However, these favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

2. By the results of the questionnaire, the students view reading as understanding the main idea and supporting details, the relations among sentences or paragraphs and making inferences. Very few students see reading as understanding grammar and vocabulary in the text. On the other hand, these favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

3. By the results of the questionnaire, before reading the text, the students use strategies such as asking their own questions about the text to have a purpose in mind and to verify or refute their expectations. Very few students do not ask questions and read the text without a purpose in mind. However, these favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

4. By the results of the questionnaire, the students read the text carefully and with a purpose such as finding the main idea or supporting details by taking notes at certain points and underlining certain parts to make sure that they have really comprehended the text. Very few students read the comprehension questions first only to answer comprehension questions without using any useful strategies. But, these favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

5. By the results of the questionnaire, the students verify the correctness of their answers by checking the congruence of the information in the text and questions over and over again. Very few students do not care about the correctness of their responses. On the other hand, these favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

6. By the results of the questionnaire, the students use knowledge sources such background, synonyms, antonyms, conjunctions, the relations between and/or among sentences and/or paragraphs, and reading skills such as skimming and scanning. They are also interested in the text type. Very few students mostly depend on their knowledge of grammar, vocabulary and translation, and they do not make distinctions among texts. But, these favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

7. By the results of the questionnaire, the students had difficulty in understanding discussion, cause-effect parts, certain details, academic language, and applying their background knowledge to the text 'Warning on Global Warming'. However, these difficulties were local and they skipped such parts and tried to understand them in the other parts. Very few students usually had difficulty with every unknown word and grammar structure and they read those parts over and over again.

However, these difficulties were global for them. These favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

8. By the results of the questionnaire, for the students, the parts where there were cause-effect relations, experts' views, and precautions are important. For very few students, all the information in the text is equally important. On the other hand, these favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

9. By the results of the questionnaire, the students agree that every paragraph and sentence has a function and that identifying them contributes to their understanding considerably. For very few students, paying attention to and finding such things is not important. Understanding individual sentences is enough. But, these favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

10. By the results of the questionnaire, for the students, long, compound and complex sentences and unknown words do not challenge them and they use appropriate strategies to overcome them. They resort to translation only when they are stuck. For very few students, such linguistic obstacles in the text challenge them greatly. However, these favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

11. By the results of the questionnaire, while reading the text, the students read with some awareness. That is, they organize and coordinate their cognitive resources. In other words, they use metacognitive skills and strategies to some extent. Very few students use their limited cognitive skills and strategies regardless of the circumstances which may positively or negatively affect their cognitive resources. On the other hand, these favorable results were just the opposite according to the results of the pretest and think-aloud protocols.

5.2 QUANTITATIVE FINDINGS

The main quantitative findings obtained through the pretest, strategy instruction test and the posttest are as follows:

1. By the results of the pretest, almost all the students were poor at general and inferential reading skills and strategies, cognitive and metacognitive reading skills and

strategies. Furthermore, they were not aware of these skills and strategies. Moreover, although they were nearly equipped fully with all the linguistic and non-linguistic knowledge sources, they were unaware of the need to draw on such knowledge sources while reading and they did not know to approach the text utilizing such knowledge sources both to remedy comprehension failures and facilitate reading comprehension.

2. The students made some significant progress in general and inferential reading skills and strategies and cognitive and metacognitive skills and strategies as a result of the strategy instruction which was in progress when the strategy instruction test was given.

3. The students showed that they had made significant progress in general and inferential reading skills and strategies and cognitive and metacognitive skills and strategies as a result of the strategy instruction which had been completed when the posttest was given.

4. When the performance of the females and males in the three tests were compared, the males were more successful than the females in the pretest. The females were more successful than the males in the strategy instruction test. The males were more successful than the females in the posttest. Finally, the males scored higher than the females in the reading skills and strategies questionnaire. Although there were differences of scores between the females and males, the differences were not found to be statistically significant.

CHAPTER VI

6. DISCUSSION OF THE STUDY

In this section the discussion of the findings are made comprehensively around the aims and the hypotheses of the study in order to show why the hypotheses have been verified or refuted, whether the findings of the study overlap with those of the studies which are identical or similar in the literature, and what contributions the present study has brought to the relevant literature.

The main purpose of this study was to reveal the first year ELT students' reading strategy profile in general reading comprehension, specifically on making inferences from texts at Gazi University Faculty of Education. Thus, the sub purposes were the following:

1. Whether or not learners have sufficient linguistic, experiential (background → schemata, frames, scripts), cognitive and metacognitive knowledge sources for comprehension.
2. Whether or not they utilize appropriately these knowledge sources as strategies for comprehension.
3. Whether or not they are aware of utilizing these knowledge sources. That is, do they know why they use what they know? Or do they know what to use for what and for what purpose? Thus, do they possess the ability to turn these knowledge sources into strategies appropriately as required?

It was established through the relevant measures that although the students did not lack the necessary linguistic, experiential and cognitive skills required for reading comprehension, they had serious problems with metacognitive strategies. At the center of their low performance in general and inferential reading skills and strategies lie the significant lack of metacognitive reading skills and strategies. They did not employ their knowledge sources as strategies in comprehending the text, and their overall reading performance was quite low. They did not use appropriate strategies, or indeed they were not aware of the necessity of those strategies. Therefore, they did not feel the need to depend on those strategies in order to remedy possible comprehension failures and

improve their reading performance. Research strongly supports that good readers are strategic readers. Such readers know where, when, how and why to use what they possess in a comprehension task. However, the unawareness of metacognitive skills and strategies prevents the students from becoming strategic readers. Moreover, the students cannot make inferences largely because they do not have metacognitive skills and strategies. In the following paragraphs metacognition will be treated comprehensively and elaborated on to show how it contributes to successful reading performance.

The hypotheses of the study were the following:

1. The students are expected to agree that while reading a text they have to utilize the necessary knowledge sources and reading skills and strategies which are stated in the questionnaire.
2. The students are expected to exhibit very high scores in the Reading Skills and Strategies Questionnaire.
3. The students are assumed to possess the necessary knowledge sources.
4. The students are assumed not to resort to appropriate reading skills and strategies while reading a text.
5. The students are assumed not to suit reading skills and strategies to their reading purpose.
6. The students are assumed not to employ cognitive and metacognitive skills and strategies in justifying their use of and preference for certain reading skills and strategies to show that they have comprehended the text.
7. The students are assumed to be incompetent in general and inferential reading skills and strategies.
8. The Students are expected to display noticeable improvement in the above mentioned strategies and skills at the end of a period of instruction comprising practical work relevant to inferential skills within efficient reading strategies.

As a result of the administration of the relevant measures, all these hypotheses set previously were verified. Accordingly, students initially agreed that they had to

make use of certain knowledge sources in text comprehension, and this was proved by their getting quite high scores from the reading skills and strategies questionnaire. It was established that all the students were in possession of the required linguistic and non-linguistic knowledge sources as a result of the Think aloud protocols in which their thinking processes were revealed while they were taking the pretest. By the direct observations performed through the Think-aloud protocols, it was also established that they could not read by employing suitable reading strategies. They were poor at cognitive and metacognitive strategies because they could not account for their particular reading performance with appropriate means and techniques, and they could not justify their use and choice for a particular reading skill and strategy. Moreover, they were quite poor at inferential skills and strategies which were the main focus of the present study. Their low performance in inferencing was proved by their quite low scores on the items examining those skills in the pretest. However, after receiving the strategy instruction, the students were expected to exhibit remarkable improvement in the skills and strategies mentioned in the hypotheses. They showed that they had had immediate gains in reading skills and strategies by their high scores in the posttest although those gains cannot still be regarded sufficient because the duration of the instruction was limited to only ten hours and they did not work on a variety of different text types employing a wide range of reading skills and strategies. Therefore, their performance cannot be retained for longer periods of time.

When the findings obtained through the qualitative measures are considered, the students reported that they were knowledgeable enough and competent in knowing and using reading skills and strategies although a very small number of students were at one of the extreme end of the reading performance. However, considering that the students' reports may not show their actual performance in reading, their performance was tested by a pretest in order to see whether they would actually exhibit their good performance which they had shown in the questionnaire previously. As a result of the pretest, they exhibited quite a low performance in reading skills and strategies. Thus, their real performance was identified by the pretest.

Now we can discuss the underlying causes of the students' low performance in reading by comparing the performance of successful and less successful readers. Successful and less successful readers are assumed to approach reading in different

ways (Sheorey and Mokhtari, 2001: 431-449; Phakiti, 2003: 26-56). When successful and less successful readers are compared in terms of quantity and quality of strategy, successful readers use more strategies than less successful ones. They also use better or higher-level strategies, or use them more appropriately. Successful readers usually use a variety of reading strategies which are high level and metacognitive in nature. For instance, successful readers frequently engage in deliberate activities which require planning, evaluating, flexible strategies, and periodic self-monitoring. They are generally more aware of what they are reading and of what their purpose is in reading. Furthermore, they have a set of experimental plans or strategies to solve potential problems and to monitor their reading comprehension. Thus, using these strategies make them better readers. On the other hand, less successful readers do little monitoring of their own memory, comprehension, and other cognitive processes, and usually focus on reading as a decoding process, which is quite simple and basic level of reading.

The students who took the pretest exhibited identical or similar low performance in reading comprehension. It was observed in and understood from the reading task in which the think aloud protocols were applied that almost all of the students in the sample approached the text with a shallow processing. Although understanding syntactic and lexical relations in a text is the basic step of reading comprehension, it is not the ultimate level. Most students cannot go beyond this level, and fail in comprehension. Actually, we think the problem for remaining at this level stems from the fact that students do not know or are not aware of going beyond this level. Even if some know the second level, they are not equipped with the necessary knowledge and tools with which they can process the text. Another reason is the fact that most students' habit to read a text superficially, which is thought to have persisted since early years of primary education. Another significant reason for this type of text processing is that students might not have been trained by teachers in skills and strategies which are required for the deep processing of texts. The lack of training in higher levels in reading may stem from the fact that even teachers may not be aware of higher level reading skills and strategies, that they do not have the right methodology to teach higher level reading skills and strategies, or that it is difficult and time consuming to teach such skills and strategies. The evidence for this approach which the students adopted while reading was their way of reading in order to understand every word and sentence.

Moreover, students' tendency to use a particular processing approach determines their source of motivation. Accordingly, students with deep approaches are intrinsically motivated by the subject matter, seek the underlying meaning of the task, relate the task to their own experience or prior knowledge and derive enjoyment from studying. The deep motive is based on intrinsic motivation or curiosity. The deep approach to learning involves high level cognitive processes rather than rote learning. The strategy which deep learners adopt is to maximize understanding. However, a surface approach to learning is one in which students are extrinsically motivated. Extrinsically motivated students have the intention to reproduce the learning material and adopt strategies which focus on what looks most important for an exam. The surface motive is based on extrinsic motivation or the fear of failure. A typical surface strategy is rote learning, or reproducing without understanding, which was the case for the subjects who took the pretest.

One reason for choosing a surface approach to process the text could be their lack of knowledge of reading skills and strategies. However, this was not the case for our students in the research. Thus, a plausible explanation could be the fact that they cannot employ them in reading because they are unaware of them, which is quite sensible because they could not justify their particular tendencies and preferences in the reading tasks. Another explanation could be the fact that the students were not taught sufficiently where, when and why to use certain reading skills and strategies. This is also logical because teaching reading strategies require a lot of planning and implementation by the instructor. Still another explanation could be the fact that they were not taught to use reading skills and strategies on a broad range of different text types with a plenty of exposure and extended time. This is sensible as well because research suggest that strategies should be applied and practiced over a longer period of time in order to achieve gains. A final explanation could be the fact that the students bring some wrong reading habits along with them, or even though they do not have wrong reading habits, they may not be able to transfer appropriate reading skills and strategies to foreign language reading. This is also logical because research on L1 suggests that contrary to assumptions, L1 has a facilitative and speeding role on foreign language learning. Therefore, students should be ensured to make a smooth transition of skills and strategies from one language to another.

However, our students exhibited good performance and significant improvement in reading skills and strategies as a result of the strategy instruction. Now factors which favorably affected such performance and improvement can be discussed. As research strongly supports, strategy instruction is a powerful instrument in improving students' reading performance. When readers are asked to self-question, clarify, summarize, and make predictions, they are pushed to become more purposeful, more thoughtful in their thinking, more engaged with the text, and more reflective on their reading performance. Thus, as readers become more thoughtful, purposeful, and reflective, they begin to become aware of the need for the skills and strategies of self-directing, planning, coordinating and monitoring their reading comprehension. As a result, they begin to improve their general and inferential skills and strategies. However, readers cannot be forced to read using appropriate skills and strategies and make inferences. Relevant strategies can be modeled for them, they can be passed through the necessary thinking and cognitive procedures to make connections within the text, and finally, responsibility can be shifted to them (Guthrie et al., 1996: 306-332; Dewitz and Dewitz, 2003: 431-448).

In our study too, the students were generally taught to become aware of their cognitive processes and capabilities and to use them, which led them to metacognitive thinking and strategic reading. The most significant improvement for them was to get them to become aware of their already existing knowledge sources which they do not usually use them consciously, which improved their low reading performance.

However, it should be borne in mind that strategy instruction is not a magic stick which can immediately change things for good. Strategy instruction is an indirect force on cognition, a cognitive mediator which promotes a disposition to structured and careful reading. Yet, it is a commonly used instrument in order to diagnose and remedy comprehension difficulties and to improve specific and general reading performance. The first step in strategy instruction is to investigate readers' existing strategy use and build on what they already know by making their own knowledge more explicit for them. In addition, effective strategy training should involve instruction not only about what strategies to employ, but also about when, where and how to apply them as well as how to transfer them into other situations (O'Malley and Chamot, 1990; Anderson, 1999). Strategy training makes readers become aware of their own reading processes by

emphasizing strategies explicitly so that readers can discuss, evaluate and practice them effectively. While the short-term aim of instruction is to promote comprehension in reading, the ultimate goal is to create independent and effective readers who can build their own purposes and adopt the relevant strategies (Silberstein, 1994; Cohen, 1998; Janzen and Stoller, 1998: 251-269). Thus, strategy training develops autonomous learners with high motivation and self-esteem responsible for their own performances in reading.

After a general discussion of the qualitative and quantitative findings, metacognition, inference which was the main focus of the present study, the effect of L1 on L2 and the effect of gender can be discussed comprehensively. Thus, the subjects' low performance in the pretest and their improvement of inferential skills and strategies as the posttest demonstrated as a result of strategy instruction can be accounted for.

6.1. DISCUSSION OF METACOGNITIVE SKILLS AND STRATEGIES

It is widely acknowledged that metacognitive skills and strategies have crucial roles in reading comprehension. However, some metacognitive skills in reading comprehension stand out more than the others. Therefore, some of the significant metacognitive skills are finding the main idea of the text and summarizing it (Brown and Day, 1983: 1-14; Garner, 1987). Main idea and summarization skills are terms which are based on the author's organization rather than on an organization imposed by the reader. The gist of the text is a brief summary statement of the explicit contents of that text. The theme of the text is defined as a brief statement containing a generalization about life, or the world which the text as a whole develops or implies. Another example of main idea is interpretation. Interpretation is a summary statement of the possible or probable implicit contents of the text. Although an interpretation of the text is made by the reader, when coming to any conclusions, the reader should be encouraged to bear in mind the author's intent and organization. Key to understanding the author's message (or point) is the ability of the reader to comprehend the gist or the theme of the text which he is reading, and to be able to derive the author's implied message through interpretation.

Identifying the main idea and summarizing are considered to be important metacognitive comprehension strategies because the reader must assess the relevance as

well as the importance of each idea and then rank-order the ideas according to their centrality of importance (Van Dijk and Kintsch, 1983). After the reader has rank-ordered ideas, identification of the main idea helps him to construct the text structure, particularly for expository texts, because it provides a framework for organizing, understanding, and remembering the essential details. It is also a key factor in comprehension as it keeps readers from becoming absorbed in irrelevant details or trivial information.

The students in the study were observed to have got into insignificant details or trivial information as a result of the think-aloud protocols which were conducted based on the pretest. Therefore, they had difficulty in identifying the main idea and summarizing the text. If the main idea of the text cannot be detected or in many cases, cannot be inferred, the reader can never be said to have comprehended the text because the main idea is seldom stated explicitly in most texts, and it is usually extracted through interpretation of the implicit content of the text by the reader. Thus, he cannot find the significant links of the text and cannot combine them in order to reach a generalization, which constitutes the actual message desired to be conveyed. Therefore, such a reader gets lost in the text and struggle much to comprehend it. For example, he reads every word and sentence in detail and carefully thinking that he can get meaning with that type of reading as was the case with our students in the pretest.

Because relationships between and/or among sentences and/or paragraphs are usually implicit, those relations must be discovered and inferred by the reader to get the actual message. Thus, the reader who does not have the skill of identifying the main idea with correct and suitable knowledge sources and techniques will not be able to make inferences to make implicit relations explicit. It can be said that main idea identification and inferencing are closely linked metacognitive skills of reading comprehension in order to achieve actual and full comprehension of the text. Although our students were certain to have the necessary knowledge sources to comprehend the text, what they seriously lacked was that they were not metacognitively aware. In other words, they did not know how, when, where to plan, organize and utilize their knowledge sources. Therefore, it is not adequate to have pure knowledge sources alone, but there should be metacognitive awareness which can also be termed as strategic reading. The main focus of the present study is inferencing skills. Thus, it can be

concluded that metacognitive skills are vital skills for reading comprehension because inferencing as a higher order skill is also included in metacognitive skills and strategies.

Also, main idea and summarization skills can be considered as the ultimate skills of reading comprehension. However, in order to perform these skills, many sub skills of reading comprehension must have been mastered. These sub skills could be finding the important information in the text, discriminating between the important and unimportant information in the text, finding the supporting details, cause-effect relationships, skimming and scanning. However, the students in the study could not perform these sub skills of main idea and summarization because they partial knowledge about them and they were not aware of them. Therefore, main idea and summarization skills can be implemented only if the above mentioned sub skills of reading comprehension are mastered effectively.

Because awareness is a crucial factor in successful comprehension, it can also be said that the lack of metacognitive skills and strategies underlie many poor reading performance such as inferencing and comprehension difficulties, i.e., not being able to identify the main idea of the text, and not being able to summarize the text. Therefore, in present study, the most significant factor which made the students successful in general and inferential skills was that they became aware of their knowledge sources and began to employ them strategically and metacognitively. Also, they accepted the fact that they should draw on their knowledge sources. Thus, they developed a reflective and questioning attitude towards reading comprehension. They abandoned their old reading habit of reading the text and answering the comprehension questions.

6.2. DISCUSSION OF INFERENCES

Almost all the students were poor at reading comprehension as was shown by the pretest. Thus, the readers who had difficulty in comprehension exhibited the following characteristics during comprehension. They tended to comprehend the text at the literal level; they failed to establish connections between and/or among linguistic units, that is, words, clauses and sentences; and they could not utilize their background knowledge appropriately to integrate it with the text content. These prevented them from making predictions, and thus, comprehending the text. As a result of all these, they failed to make an integrated mental representation of the text content. Thus, the readers

also had difficulty in making inferences from the text. For example, they failed to make connecting and causal inferences, they failed to monitor and select appropriate strategies and they applied their background knowledge to the text inappropriately. The most significant comprehension difficulty detected was the inability to connect the ideas within the text. In connection with these comprehension difficulties, based on her observation of readers' problems with reading, Silberstein (1994: 7) states that while readers are relatively good at lower level skills, their problems lie primarily with higher level skills such as inferencing.

Also, in reading comprehension questions, certain types of questions are commonly found, which require the reader to go beyond the linguistic level of the text and to understand the relationship between one part of the text and another, for instance, a paragraph, a sentence or a part of a sentence. They are called inference questions. According to Williams (1984: 56), inference questions not only check comprehension and give evidence of comprehension, but also help comprehension by drawing the reader's attention to relationships which may have been missed.

Thus, the students in the study could not answer the inferential questions in the pretest correctly, '1. Overall, what sort of picture is painted of the future effects of global warming?, 2. What is this passage?, 3. Mr David Melville suggests that in future more food could be imported into Hong Kong. How does he think these measures could be?, 4. In paragraph 7 which point is Mr Melville NOT making?, 5. The main point of paragraph 3 is to describe:, 6. The main point of paragraph 5 is to describe:, and 7. How would you describe the Dr. Leeman's attitude towards China?'

The answers to these inferential questions could not be found directly in the text. The students were to combine and synthesize the pieces of information scattered in the sentences and paragraphs in the text by relying on their linguistic knowledge sources and utilizing them metacognitively. However, almost all of the students failed to answer these questions correctly.

One reason for failure in making inferences was probably the students' preference for processing strategies. They could have tended to rely more heavily on bottom-up and text-based strategies, which could have led to superficial understanding of the text. They might not have used top-down processes based on prior knowledge and

schemata. They may not know top-down strategies, or they might not have employed them skillfully in interaction with bottom-up strategies. The most likely explanation could be the fact that they used top-down strategies in quite an inefficient way. Top-down processes include knowledge of content such as background knowledge and cultural schemata as well as knowledge of text structure such as formal schemata of different text genres. For example, the students could not identify the text type in the pretest. Another plausible explanation for their failure was probably their lack of knowledge of metacognitive skills and strategies. According to Carrell, Pharis and Liberto (1989: 647-678), the metacognitive awareness of students is a potentially effective factor for effective reading, and successful reading strategy use is dependent on whether a strategy is employed metacognitively. For example, the students in the study probably did not make predictions sufficiently and effectively, did not self-question, did not monitor their comprehension, did not search for importance of information, did not summarize the text, and did not repair comprehension breaks. Because they could not perform these metacognitive skills, they could not justify the choices which they made during the comprehension task and failed.

According to Thurlow and Van den Broek (1997: 1-13), the skilled reader can make inferences automatically only if he is careful in the use of his attentional resources. For example, he can attend to the most important material for making inferences. Research suggests that the skilled reader focuses his attention in certain ways. For example, he keeps track of the most important topic information and directs attention to any new material referring to the same topic either directly or anaphorically. For example, the reader might keep his attention focused on the main characters as their story goes on, because they are referred to again and again. This is called a leading edge strategy based on the research regarding the automatic nature of anaphoric inferences. Also, the reader could attend to text information which is likely to play an important causal role. The goals and motives of characters, or actions which have occurred but have not yet had a consequence could be in the causal role. This is called a current state strategy, and it is supported by research on the automatic nature of causal inferences. Thus, the reader could be instructed to attend to certain aspects of the text and to ask questions about common referents. If we recall our Toby text, questions about common referents such as 'What did Toby shake?' and causal relations such as 'Why did Toby shake the bank?' could be asked.

A significant point about reading comprehension is that the inferencing skill does not have immediate knowledge sources. That is, one can know a lot of grammar points and/or vocabulary, but he cannot make the inferences in the text directly. Therefore, one must master the necessary knowledge sources and the sub skills of reading comprehension mentioned above in order to make inferences. To make an analogy, one can scan the text for the numbers, pronouns, conjunctions, and verbs, etc., and he can reach these pieces of information in the text directly. However, one cannot make inferences from the text directly because the relationships among words, sentences and paragraphs are not usually signaled with explicit markers. Even though there could be explicit relationships within the text, the reader should synthesize them in a particular way to reach a general statement about the text. Therefore, inferencing is not a directly applicable skill and strategy to the text in reading comprehension. In the present study, we set out to investigate inferential strategies. However, there are no formal strategies regarding inferencing although Thurlow and Van den Broek (1997: 1-13) mention a leading edge strategy and a current state strategy. Not all inferences can be made using these two strategies. Thus, first the types of inferences and then essential and non-essential inferences should be identified. Later, knowledge sources needed to draw a particular inference should be determined, and relevant knowledge sources regarding inferences could be turned to strategies.

Another significant point about reading comprehension is that not being able to make inferences is not the direct cause of having poor reading skills and strategies. However, not being able to make inferences is the result of the lack of the necessary knowledge sources, such as insufficient grammar, lack of knowledge of the meaning and functions of conjunctions, not being able to find the correct referent of a word in the text such as it, them, these, and poor reading skills and strategies. Therefore, one should perform the necessary sub skills of reading comprehension first, and then he can make inferences in the text. It can be said that there is a hierarchy of the performance of reading comprehension skills and strategies. The reader may have adequate knowledge sources and reading comprehension skills and strategies, but he cannot make inferences in the text unless he is made careful and aware of the techniques and procedures required to make inferences.

6.3 DISCUSSION OF THE EFFECT OF L1 ON L2

According to Cohen (1995: 99-113), people with access to two or more languages shift frequently between them. However, these shifts can be either unintentional (for example, it is easier to think in one language than another, and so the brain automatically shifts languages) or intentional (e.g., using another language to help understand the grammar or vocabulary of the target language).

As Cohen (1995: 99-113) points out, in the think-aloud protocols in the study, some of the students reported that they thought in Turkish because it was easy to think in Turkish and they made meaning clear in Turkish and they understood complex grammar structures in Turkish. Thus, Cohen's findings account for the students' preference for the native language in comprehending the text as the think-aloud protocols revealed. Haenggi and Perfetti (1994: 83-104) regards students' choice of their L1 in comprehension as valuable strategies, and L1 is used in the recognition of words and integration of propositions in the text. Thus, the students in the study also reported similar strategies which are similar to those expressed by Haenggi and Perfetti (1994: 83-104). Although it is essential that students should think in the target language to make meaning clear, it is inevitable that L1 can be used in comprehension of the target language text as compensation and repair strategies when a comprehension failure occurs. Therefore, teachers can teach students what aspects of the L1 they can utilize in comprehension, how they can use it, and to what extent they can use it in remedying or facilitating the comprehension of the L2 text.

6.4. DISCUSSION OF THE EFFECT OF GENDER ON READING COMPREHENSION STRATEGIES

Females may be superior to males in terms of some qualities; however, the achievement of females in reading should be researched exhaustively. It is not known whether their achievement in reading stems from their natural gender characteristics or pure individual achievement regardless of gender qualities. It could be true that females may have some superior features which stem purely from their gender, but males can also be brought to an equal level in reading achievement. Actually, the gender itself alone cannot be the determinant or predictor of achievement, but it must probably be the

shear individual effort which is invested in a certain subject area which determines and predicts achievement.

To sum up all the discussion, in order to achieve comprehension, the student has to possess certain knowledge sources, such as morphology, syntax, semantics, textual competence (knowledge of coherence, cohesion, situationality, intertextuality, informativity, etc.), communicative competence (what function a particular utterance fulfills in a given situation), pragmatic competence (what a particular utterance means in a certain context), strategic competence (how to go on communicating when there is a communication break), discourse competence (how a piece of text constitutes a meaningful network of relations, what the purpose of the text is, who wrote it, what the tone of the text is, whether the text is formal, informal or casual). All these are called knowledge sources and they are all involved in comprehending the text. However, the student's possession of these knowledge sources is not a guarantee that he will be able to comprehend the text with these knowledge sources. The student should know when, where, how, how much and how often and why he should use these knowledge sources. In other words, the student should be able to turn these knowledge sources into strategies when problems arise in text comprehension, and it is certain that he will encounter problems in text comprehension. Consequently, the student will consult his repertoire of knowledge sources, and choose the most suitable one or ones from among them, and he will apply them to text comprehension. This tactical use of knowledge sources constitutes strategies.

Also, the causes of poor reading performance and reading comprehension difficulties do not lie in a single factor, but a chain of multiple factors. However, if the necessary knowledge sources, reading skills and strategies and metacognition are brought together, students will be able to improve their general reading skills and strategies and will be able to make inferences in the text, which can be considered as the main contributor to the comprehension of the text. Finally, from these findings on comprehension difficulties and reading strategies employed during comprehension, it can be concluded that comprehension difficulties do not stem alone from not being able to make inferences from the text. The fact that learners stay at the identification level and that they cannot pass from this level to the interpretation level result in the above discussed comprehension difficulties and inappropriate strategy choice. Thus, not being able to make inferences is not the main cause of comprehension difficulties, but it is the result of such comprehension difficulties.

CHAPTER VII

7. SUGGESTIONS

As a result of the findings and the discussion of the findings, the following suggestions can be offered in order to improve reading comprehension in general and the teaching of inferencing in particular at ELT departments, to facilitate reading comprehension, to utilize L1 in L2 reading, and to help teachers to prepare for text comprehension instruction.

7.1 SUGGESTIONS FOR READING COMPREHENSION AT ELT DEPARTMENTS

1. The students possessed the basic linguistic knowledge and skills such as morphology, semantics, syntax, vocabulary; textual knowledge such as coherence, cohesion, situationality, intertextuality, etc; and some competences such as communicative, pragmatic, strategic, etc. However, these pure knowledge sources did not make the students good readers because they did not possess the knowledge and practice of how to implement them in text comprehension. Therefore, while teaching reading, students should be asked to report how they process the text and answer comprehension questions. From students' verbal reports, the teacher can understand whether they can benefit from their knowledge sources correctly and effectively, and he can design his reading instruction accordingly. For example, the teacher can design discussion sessions with the whole class regarding how to benefit from a certain piece of knowledge source and when and why to use a certain piece of knowledge sources. Thus, students can develop correct, beneficial, critical and reflective approaches to the utilization of knowledge sources, and they can manage their cognitive sources effectively.

2. Because the students read every detail of the text, they failed to capture the actual message of the text, and they had a superficial understanding of the text. Thus, the teacher should teach students how to make a distinction between important information and unimportant information in the text by working on a variety of sample texts together with the students through explicit teaching, practice and discussion. The students theoretically know the distinction between skimming and scanning, but they

cannot apply them well enough in actual comprehension. Therefore, the teacher again should work on sample texts with students by explicitly demonstrating how to implement such skills. Because the students could not find the main idea, they did not get the real message from the text. Thus, one strategy for the extraction of main idea could be to detect general statements within the text.

3. The students could not find connections between sentences and paragraphs. Thus, students could be informed of the fact that there are functions of sentences and paragraphs through different relationships such as cause-effect, thesis-proof, examples, claims-supports, etc among sentences and paragraphs. The teacher can instruct his students on these properties on sample texts.

4. The students cannot ask appropriate questions before reading the text to raise expectations about the content and message of the text, which facilitates comprehension. Thus, before reading the text, the teacher can ask students to think about what they already know about the text and what they want to see in the text or know from the text. As a result of relating the background knowledge and the content of the text, students can be taught to formulate appropriate questions about the text. The teacher can ask students why they ask certain questions about the text so that he can understand whether their questions will guide them to the comprehension of the text.

5. The students cannot underline significant parts in the text, and even though they do this, they cannot explain logically why they did so. Also, when they read long texts, they do not take notes. Thus, first the teacher should explicitly teach how to distinguish between important and unimportant information. The students can be asked to focus on key points in the text, and then they can be asked to explain why they chose those points in the text. They can be asked to focus on main characters and causal relations in the text.

6. The students cannot justify the correctness of their responses to the comprehension questions. Thus, the teacher should teach students how and where to look for a certain piece of information in the text. Different types of information are found in different parts of the text. For example, students can look for the thesis of the writer in initial paragraphs, but not in final paragraphs. The teacher should teach

students how to match the information in the items with the information in the text to give correct responses and justify their responses.

7. The students cannot apply their background and linguistic knowledge to the text sufficiently. The teacher can ask the students to make a list of what they know about the text and then to read the text considering their knowledge about the text. After the first reading, students can combine their knowledge which matches the knowledge in the text to facilitate comprehension. If their information and the information in the text contradict, then the teacher can help students to reconcile the contradictory information. In order to discover the relationships between sentences, the teacher can direct students' attention to the discourse markers in the text because such markers signal transition of ideas among sentences. In order to make out pragmatic meaning in the text, students can focus their attention on who said something where, when and why and in what circumstance and situation.

8. The students think that if they cannot understand a certain part, they think they cannot understand the whole text. The teacher should explicitly demonstrate students that they should not be stuck in a certain part in the text, and he should show them they can find what they are looking for in other parts of the text.

9. The students cannot apply their knowledge sources in a conscious and purposeful manner. That is, they do not benefit from metacognitive skills. Thus, first the teacher should give explicit instruction in metacognitive skills and strategies. Then he should show the application of knowledge sources to the text by working on sample texts together with students. Students should learn to ask to himself and answer especially 'when and why' questions in text comprehension. Students should report to the teacher how they answered such questions in relation to the text, and they should habitually and automatically question and reflect on their knowledge sources. Thus, this will become a skill and it will automatically be applied by students in text comprehension.

10. The students cannot read strategically. The teacher should explicitly teach students what it means to be strategic. He should teach them what particular strategies can be used especially with challenging reading materials. The teacher should provide

students with different reading genres, different reading strategies and sufficient exposure to them throughout the whole curriculum because strategic reading takes a long time, at least one or more years.

11. Peer tutoring sessions can be designed for students by the teacher. Thus, after students are taught strategies by the teacher, as they teach each other, they will learn from each other. This will ensure the retention of what they have learnt.

12. Students should become independent of the teacher and they should be autonomous learners. They should be able to read effectively and successfully by themselves and make their decisions regarding reading comprehension difficulties and problems on their own.

13. In addition to paper and pencil tests, think-aloud protocols can be used whenever problems arise in reading comprehension because there may be a mismatch between students' reported strategy use and their actual strategy application. Thus, reading difficulties can be identified much more effectively and firmly combined with paper and pencil tests and think-aloud protocols and remedial instruction can be designed accordingly. Both questionnaires and think-aloud protocols can be administered with the same reading task so that students' reported and actual use of reading strategies can be compared.

14. The teacher should also design classroom sessions where students can reflect on the reading skills and strategies which they are taught, and the teacher should take into account criticisms, suggestions and problems coming from students because strategy instruction also affects students' attitudes towards the reading process. Therefore, strategy instruction should not only focus on specific techniques, but also aim at the reorientation of student beliefs and attitudes about the role of reading in their academic and personal lives as well as about the collaborative role of students and teachers.

7.2 SUGGESTIONS FOR THE FACILITATION OF READING COMPREHENSION

15. Before beginning to read a text, students should be given a purpose to read and think about the purpose for the reading. They can write their thoughts regarding what they are supposed to get out of the text.

16. Before beginning to read a text, students should survey it by looking at the title of the text, the subheadings, italicized or bold prints in writing, illustrations or graphs. Then they should scan the entire reading, and then focus on the most interesting or relevant parts to read in detail.

17. Students can read the introduction and conclusion parts of the text, then go back and read the whole of it. They can read the first line in every paragraph to get an idea of how the ideas progress, then go back and read from the beginning.

18. Students can take notes and then talk back to the text. For example, they can write down what parts are difficult, boring or interesting, and then speculate about why. Also, they can think and write about where they get stuck in the text, and contemplate why that particular place is difficult and how they might break through the block.

19. After students have read the entire text, they can write a summary, and review their ideas in the summary after reading it. Finally, they can ask themselves questions to determine what they got out of the text.

20. In reading comprehension, L1 should not be treated merely as having interfering effects by the teacher. The teacher should investigate, adapt and incorporate the favorable, facilitative and speeding effects of L1 to L2 reading. The teacher can also investigate their students' weaknesses and strengths in their L1 and teach L2 reading accordingly.

21. Students can be informed of the similarity of the process of reading in L1 and L2. They may be asked to report what they do in reading an L1 text. Thus, they may be taught how to transfer those good reading habits they use in L1 to L2. However, information sessions should be carried out in L2 since students need practice in L2. For example, students can be informed that just as transition markers in a text are used in L1 to facilitate and make meaning relations between and/or sentences clear, so the same procedures operate in L2 as well. They can be reminded other skills such as main idea,

summarizing; rhetorical organization such as introduction, discussion and conclusion parts of a text in both L1 and L2.

7.3 SUGGESTIONS FOR THE TEACHING OF INFERENCING

22. Making inferences is said to be a crucial and significant skill by many authors, and they say that reading comprehension is incomplete without inferences. This is extremely true. However, students cannot make inferences from texts by themselves. It is not something like finding a word or a phrase in the text by scanning. Students have to have a sound linguistic and strategic infrastructure in order to make inferences. The inability to make inferences is not the actual causes of poor reading comprehension; however, not being able to make inferences is the result of the fact that students are not equipped with a sound linguistic and strategic infrastructure detailed above. Therefore, in order to make students successful readers, their reading difficulties should be diagnosed by effective tools and remedied accordingly.

23. Teachers should teach their students what the types of inferences are and which inferences are essential for comprehension. They should explicitly teach all the necessary cognitive and metacognitive procedures in order to extract inferences from the text. They should also teach them how to discriminate between essential and non-essential inferences in the text.

24. Inferences themselves are not alone determining factors in comprehending the text. Teachers should also emphasize this point strongly. First an accurate and sufficient representation of the text should be performed in the reader's mind. This means understanding the main idea, supporting details, cause-effect relationships, etc. Producing a good mental representation of the text means discovering all the network of relationships within the text, which are micro and macro propositions and condensing them to the most general and shortest proposition. In text comprehension, inferences are needed in order to discover implicit relationships, which contribute to the comprehension of the text greatly.

25. Research supports the theory that the less successful reader's difficulties in generating inferences hinder comprehension. Therefore, the less skilled reader experiences greater difficulty in generating both text-connecting and elaborative

inferences than his more skilled counterpart. Thus, teachers can help less skilled readers by showing how skilled readers draw such inferences.

26. The inability to make inferences may be at the sentence, paragraph, and whole-text levels. Thus, strategies such as predicting, self-questioning, searching for importance in the text, summarizing, and monitoring can be used to draw inferences.

27. Inferencing skills and strategies can be taught and evaluated through formative and diagnostic questioning strategies.

28. Students should be trained to make distinctions between inference forms. The ability to identify and evaluate inference opportunities and to discriminate between the varieties of inference types is crucial if students aim to achieve and improve reading comprehension.

29. Teachers can design authentic teaching and assessment techniques to identify and indicate students' proficiency and progress in critical inferencing ability.

7.4 SUGGESTIONS FOR TEACHER PREPARATION FOR READING COMPREHENSION INSTRUCTION

30. Strategy instruction has favorable effects, facilitates students' reading processes and it can raise their consciousness. Considering the positive results observed after the explicit reading strategy training in this study and many other studies, the teacher should attach importance to reading strategy instruction to create self-confident strategic readers. After the identification of students' existing strategy use and the determination of their needs, the teacher can plan reading strategy instruction. The crucial components of the explicit strategy instruction should be not only the presentation of the strategies, but also the training in when, where and how to employ reading strategies, and how to evaluate their applications. Both cognitive and metacognitive strategies should be emphasized simultaneously in the strategy instruction so that students can learn how to monitor their own reading performances as well. In fact, one of the primary goals of strategy instruction is to encourage students to reflect on their reading behaviors.

31. Students should certainly be trained to approach reading strategically, and strategies should be taught in the context in which real reading comprehension is carried

out. They should be trained in order to be aware of the fact that they do not merely need vocabulary and sentence structure knowledge in order to comprehend what they are reading rather they need to make use of world knowledge. Students should be encouraged to manage their own cognitive resources (background knowledge) while they are reading.

32. To help students become more aware of the structure of a text and therefore grasp its key concepts, the teacher can provide outlines to present the rhetorical organization of the text. Finally, reviewing keywords that are essential to understanding the text will help students hypothesize the text's main idea and prepare them for further reading.

33. In order to develop advanced reading behaviors, reading instruction should seek to develop a perspective of reading which involves mentalistic processes, inferential comprehension, awareness of one's own comprehension, and strategies to remove comprehension blocks.

34. The teacher has to learn how to teach reading comprehension strategies and procedures. The teacher can do this by becoming more aware of, and being prepared on the procedures and processes of good comprehension of text.

35. The teacher needs to learn how to interact with students during the reading of a text to teach them reading comprehension strategies at the right time and right place.

36. The goal of teacher preparation for text comprehension instruction is to provide the teacher with opportunities to learn about the cognitive processes which occur in reading. The teacher can learn how to instruct in comprehension strategies which can be utilized by the reader, how to teach strategies through demonstration and other techniques, how to explain them, how to allow the student to learn and use them in the context of reading a text, and how to use individual strategies in conjunction with several other reading comprehension strategies.

37. First, the teacher should identify the less successful and successful readers in their classes either by giving diagnostic tests or by observing their reading performance carefully in classes. Thus, he should design his reading lessons according to the needs of less successful and successful readers. Such an arrangement in preparation of

effective reading materials and implementation of such materials will result in achievement both for less successful and successful readers.

38. Although the teacher aims both for females and males to be successful readers, as research indicates, females are effective readers, and they use qualitatively and quantitatively rich reading strategies. However, in reading lessons, the teacher can show the achievement of females in reading to males as good reading examples, and can motivate and encourage males to use effective reading skills and strategies in reading comprehension. Females and males should not be put in a situation in which they are rivals to each other because both genders need effective reading comprehension.

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APPENDIX 1 The Reading Skills and Strategies Questionnaire

This questionnaire has been prepared in order to identify how you read English texts, what you need in reading comprehension and which problems you encounter in reading comprehension.

General Questions

1 – The fact that the content of the text you read fit your knowledge of the world, previous knowledge, experiences, expectations and interests affects your comprehension favorably.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

2 – Support knowledge is the only one aspect of comprehending a text, it not alone and always sufficient, but combining the topic of the text with your own previous knowledge of the text (for example, completing lack of knowledge by adding your knowledge to the topic of the text, correcting your wrong knowledge of the topic by adding from the topic of the text, or adding something you do not know to your knowledge) facilitates your comprehension of the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

3 – Linguistic context; that is, semantic texture which results from the relationships of words and sentences with each other (for example, I the bread into two.) help to get the meaning of unknown vocabulary, to comprehend the message being conveyed, to understand the meaning and functions of sentences and the topic of the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

4 – Understanding the functions of the sentences in the text (for example, warning, complaining, informing, etc.) contributes to reading comprehension.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

5 – It is necessary to benefit from grammar, vocabulary, communicative competence, pragmatic competence, strategic competence and the context in order to understand the functions of the sentences in the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

6 – When knowledges of grammar, vocabulary, morphology, communication, pragmatics, and strategy are inadequate, you use the context in order to get a message in the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

7 – Making predictions by using the key words, the topic, the title, and the pictures contributes to reading comprehension.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

8 – When you have not been able to find the information you wanted in the text, you may think that you have not comprehended the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

9 – When you have difficulty in getting the meaning, you try to find out what the problem stems from.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

10 – The information you are asked to find actually exists in the text, but you may have little knowledge about or may not be aware of where, when, how, how much you are look for the information in the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

11 – When you have difficulty in comprehending the text or part of the text, you need to know why you have difficulty, which knowledge sources you need to solve the problem, or which knowledge sources you lack.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

12 – I try to relate the important information in the text to each other in order to comprehend the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

13 – The grammar points you do not know in the text prevent you from comprehending the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

14 – Your mastery of all the grammar points facilitates your comprehending the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

15 – Your mastery of all the grammar points is not alone and always sufficient for you to comprehend the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

16 – While reading the text, it is necessary to check the grammar points you know and to check whether or not you have comprehended the text by combining your knowledge of grammar in your mind (for example, the questions such as which grammar point do I know, when am I supposed to benefit from this grammar point, why

am I benefiting from this grammar point, how am I benefiting from this grammar point, how much am I benefiting from this grammar point?)

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

The Questions on the Contributions of Grammar

17 – The compound and complex sentences in the text prevent you from comprehending the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

18 – When you do not understand the complex and long sentences in the text, you try to understand them by separating them into meaningful parts, and in doing this, you benefit grammar.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

19 – Separating the constituents in the sentence into meaningful parts facilitates your understanding of the message being conveyed.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

20 – Not being able to understand one or a few compound, complex and long sentences does not show that you have not comprehended the text in general.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

21 – Having the knowledge of affixes added to words (prefix + suffix → affixes producing nouns, affixes producing adjectives, affixes adverbs → these are derivational, inflectional affixes → plurality, tense markers, comparison of adjectives and adverbs → having the knowledge of morphology in short) helps to extract the meaning of unknown words and thus to comprehend the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

22 – The conjunctions you do not know prevent you from understanding the semantic relationship between two sentences.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

23 – You try to understand the parts not understood completely or difficult to understand by translating them into your native language.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

24 – The reason for your translating the parts not understood or difficult to understand is that the sentences are long and complex, you are insufficient in grammar, and you understand easily and better in your native language.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

25 – Understanding a sentence means identifying all the propositions it contains, identifying the relationships between the propositions, and understanding them (for example, the sentence ‘the person I spoke to at school yesterday is an old friend of mine.’ contains two propositions: Yesterday I spoke to a person at school. That person is an old friend of mine.).

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

26 – There is usually one proposition in simple sentences, so it is easy to understand them, and we do not spend much time understanding them, but there are more than one proposition in complex sentences, so it is a little difficult to understand them, and we spend a lot of time understanding them; this decreases our reading speed.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

The Questions on the Contributions of Vocabulary

27 – The words in the text you do not know prevent you from comprehending the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

28 – It is not necessary to know all the words to comprehend the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

29 – Knowing the parts of speech (for example, noun, verb, adverb) helps to extract the meaning of unknown words and thus to comprehend the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

30 – Having the knowledge of synonym, antonym, idioms and collocation (which word goes with which word) helps to extract the meaning of unknown words, and thus to comprehend the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

31 – Using the above knowledges of vocabulary appropriately when a problem in comprehension arises is necessary to check whether or not you have comprehended the text (for example, the questions such as which knowledge do I have about vocabulary, why am I supposed to use this knowledge, when am I supposed to use this knowledge, how and how much am I supposed to use this knowledge?)

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

32 – Having the knowledge of synonym, antonym, idioms and collocations is not alone and always sufficient to comprehend the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

The Questions on Unity, Coherence, and Cohesion

33 – It is necessary to look the semantic relationship between the two sentences in order to understand the conjunction between them.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

34 – Knowing the order and organization of the information in the text (for example, from the most important to the least important, beginning with a generalization and then going on with examples) facilitates your comprehension of the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

35 – Understanding the mention of only one topic in the text; that is, unity facilitates your comprehension of the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

36 – Understanding the coherence between the sentences of the text facilitates your comprehension of the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

37 – Understanding the cohesion between the sentences of the text (for example, cohesion: reference, substitution and ellipsis. For example, I saw the cat. It was black.) facilitates your comprehension of the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

The Questions on Reading Strategies

38 – Before reading the text, I skim it.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

39 – It is necessary to read the text in detail in order to comprehend the text in general and to get the actual message.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

40 – I try to extract the meaning of unknown words which are critical to comprehend the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

41 – In order to keep the text content in my mind, I underline the parts which I think are important, I read the text more than once, I take notes.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

42 – In order to keep the text content in my mind, I summarize the text or I ask myself questions about the content of the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

43 – When I think that I have not comprehended the text, I change the reading strategies (for example, reading slowly, reading again).

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

44 – After I have read the text, I try to interpret it.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

45 – In order to find the important information in the text, I go back and forward in the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

46 – Reading the text word for word, sentence for sentence and paragraph for paragraph constitutes superficial comprehension. Although this type of reading is a step of reading comprehension, it is not regarded as the full comprehension of the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

47 – In academic reading, it is necessary to read in order to reveal the semantic and functional relationships between sentences and paragraphs.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

48 – In addition to the message given by a sentence and/or paragraph, making inferences shows that we have not comprehended the text superficially, but that we have comprehended it in detail and succinctly.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

49 – Having the reading skills and strategies suitable for the type and content of the text, selecting the most suitable one, and using it are necessary to comprehend the text.

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

50 – In order to read as stated in item 49, I need to ask myself these questions: Which reading skills and strategies do I know, why, when, how and how much am I supposed to use these reading skills and strategies?

a) I completely agree b) I agree c) I partially agree d) I do not agree at all

APPENDIX 2 The Think-Aloud Protocols

- 1 Tell how you read the text.
- 2 Did you read the text in detail or read it quickly to get a general idea?
- 3 What do you think comprehending a text means?
- 4 Do you ask pre-questions before reading the text to understand it better?
- 5 Do read the text and immediately after that answer the comprehension questions?
- 6 How are you sure of the correctness of the responses to the comprehension questions?
- 7 What knowledge sources do you use to comprehend the text?
- 8 Do you try to find out the type of the text?
- 9 Did you have difficulty in understanding the text?
- 10 Which parts are easy and/or difficult in the text?
- 11 Do you think the difficult parts prevent you from understanding the text?
- 12 Do you use your background knowledge to understand the text?
- 13 Do you think all the information in the text is equally important or is certain information important?
- 14 How do you find the main idea and supporting details?
- 15 Do you take notes or underline certain parts in the text?
- 16 Do you think every paragraph in the text has a function?
- 17 Do you think there are connections between the paragraphs?
- 18 Do you think there are connections between the sentences?

19 Do you think every sentence in the text has a function?

20 Do you think long and complex sentences prevent you from understanding the text?

21 Do the unknown words in the text prevent you from understanding the text?

22 Do you think you have to know all the words to understand the text?

23 Do you translate certain parts in the text into your native language to understand the text?

APPENDIX 3 The Transcription of a Sample Think-aloud Protocol

Teacher: evet adını soyadını söylersen

Student: Student Hristanevo

Teacher: Peki student metnin tamamını nasıl okudun bana basamaklarıyla anlatır mısın?

Student: İlkönce tamamını okudum anlayarak okudum. Daha çok bilmediğim kelimeleri arayarak okudum. Ama tabi bi de anlama çok önem veriyorum ve anlamaya çalışıyorum. Genellikle metni bir iki defa okurum yani metni tekrar ederek okuyorum.

Teacher: Metni genel olarak ayrıntılı mı okudun yoksa metnin genel olarak ne anlattığını anlamak için hızlı mı okudun?

Student: Yok yok ayrıntılı hatta bazen geri dönüyorum bilmediğim yerleri tekrar etmek için.

Teacher: Ayrıntılı okudun ve bilmediğin yerleri tekrar etmek için geriye dönerek okudun peki. Yani hızlı okudun mu metni?

Student: İlk kez hızlı okudum ondan sonra tekrar okuyorum ve geri dönüyorum.

Teacher: Peki sence bir metni anlamak nedir Student?

Student: Bir metni anlamak? İçeriğini anlamak.

Teacher: Başka ne olabilir metni anlamak?

Student: ya onun ne anlattığını yani konusunu ya da ne öğretiyorsa onu.

Teacher: içeriği çıkarmak içeriği kavramak demek. Peki metni anlamak için neler yaparsın?

Student: Okumaya çalışırım.

Teacher: Okumaya çalışırsın. Yani içeriği anlamak için neler yaparsın?

Student: Daha çok vocabulary bilmek lazım.

Teacher: Peki sadece vocabulary mi önemlidir sadece?

Student: Yapılar da çok önemli.

Teacher: Yapılar demekle grameri mi kastediyorsun?

Student: Hı Hı grameri kastediyorum.

Teacher: Kelime önemli fakat aynı zamanda yapılar da önemli. Peki bu ikisini birleştirip kullanman daha iyi değil mi yani vocabulary ve grameri birleştirerek? Yani böylece mesajı çıkarabilmek.

Student: Ama önce vocabulary bilmek sonra grameri bilmek gerekir.

Teacher: Sana göre önce vocabulary bilmek sonra grameri bilmek gerekir. Peki sence bir metnin her ayrıntısını anlamak gerekir mi?

Student: Hayır.

Teacher: Hayır. Her ayrıntısını anlamak gerekmez.

Student: Hayır sadece bilmediğim kelimeleri anlamak gerekir.

Teacher: Peki sence belirli bilgilerden genellemelere mi varmak gerekir?

Student: Evet from context to meaning varmak gerekir. bağlamdan çıkarımda bulunmak.

Teacher: Evet yani genellemelere varmak gerekir diyorsun ayrıntıları anlamak değil. Peki metni bazen ayrıntılı okumak gerekir mi? Ne zaman ayrıntılı okumak gerekir sence?

Student: Mesala, bilinmeyen bir yapıyı anlamak için daha ayrıntılı okumak gerekir.

Teacher: Peki o durumlarda ayrıntılı okumak gerekir diyorsun. Peki bir metni okumadan önce metni daha iyi anlayabilmek için kendine ön sorular sorar mısın?

Student: Niçin okuyacağımı yani işime yarar mı yaramaz mı onu düşünürüm.

Teacher: Yani metnin konusuyla ilgili daha önceden sorular hazırlayıp bunları kendine sorar mısın?

Student: Hayır.

Teacher: Peki bir metni görünce hemen okuyup sorularını cevaplamaya başlar mısın?

Student: Hayır. Bir kere okurum ve anlayıp anlamadığımı kontrol ederim. Anladığımı bi tespit ederim. Anlayana kadar tekrar ederim. Metinle ilgili soruları cevaplarken ilgili yere geri dönerim.

Teacher: Peki metne verdiğin cevapların doğruluğundan emin olur musun?

Student: Tam olarak değil.

Teacher: Peki emin olduğunu nasıl anlayabilirsin? Bununla ilgili bir şey yapar mısın?

Student: Ya önce contexti anlamak lazım. Bi de o dili iyi bilmek lazım.

Teacher: O emin olmayı sağlamak için bir şeyler yapar mısın?

Student: okumak lazım bi de yabancı dili iyi konuşmak lazım.

Teacher: Peki verdiğin cevaplar doğruysa neden doğru olduğunu kendine sorar ve doğrulamak için mantıklı cevaplar arar mısın? Mesela a seçeneğini doğru seçenek olarak kabul ettim. Bunu şekilde kanıtlıyorum şu şekilde doğruluyorum diye kendi kendine soru sorar ve zihninde bunu düşünür müsün?

Student: İşte metne geri dönüp bakarım.

Teacher: İşte bunu yapmak için ne yaparsın?

Student: Metne dönerim ve metinden doğruluğunu onaylamaya çalışırım.

Teacher: Peki metinden onaylamaya nasıl çalışırsın?

Student: Metinde ilgili yeri bulurum. İlgili yerle eşleştirme yaparım.

Teacher: Peki metinde ilgili yerle cevabı eşleştirerek bunun doğru olduğu sonucuna varırsın. Peki verdiğin cevap yanlışsa neden yanlış olduğunu kendine sorar mısın? Verdiğin cevabın yanlış olabileceğini düşünür müsün?

Student: Ya kelimeyi bilmiyorumdur ya da contexti tam anlamış değilimdir. Belki kelimeler seviyemi uygun değildir.

Teacher: Bu nedenlerle anlamamış olabilirsin. Peki metni anlamak için belirli türden bilgilerine güvenir ve bunlardan yararlanır mısın? Bir metni anlamak için mesela hangi bilgilerden yararlanıyorsun? Yani dille ilgili hangi bilgilerden yararlanırsın?

Student: Vocabulary bilgisi mutlaka, daha önceki konulardan öğrendiğim şeylerden

Teacher: Daha önceki konulardan öğrendiğin şeylerden onlar ne olabilir?

Student: gramer ve vocabulary.

Teacher: Daha çok yararlandığın bilgi gramer ve vocabulary midir?

Student: Evet

Teacher: Peki cümleleri çözümler misin? Yani uzun cümleleri anlayamadığın zaman onları ne yaparsın?

Student: Parçalayarak anlamaya çalışırım.

Teacher: Peki onları nasıl parçalarsın?

Student: Böyle başlıyorum. Cümlenin başından sonuna kadar.

Teacher: Çözümlemek için belli bir kriter uygular mısın? Yani keyfi bir parçalama değil. Yani anlamlı bölümlere ayırarak parçalıyorsun.

Student: Daha önemli yerleri mutlaka anlamlı bölümlere ayırarak anlamaya çalışırım.

Teacher: Peki bağlaçların bilgisinden yararlanır mısın? Mesela iki cümleyi anlamak için bağlaca bakar mısın?

Student: Her zaman deęil.

Teacher: Her zaman deęil. Peki bakmak gerekmez mi iki cümleyi anlamak için?

Student: Gerekir. Eęer zıtlık varsa mutlaka bu ilişkiye bakmak gerekir.

Teacher: Peki bu sadece zıtlık mı olabilir? Bağlaç başka yönlerden de olabilir deęil mi?

Student: Evet olabilir. Ama genellikle ben bu durumlarda bunu kullanırım.

Teacher: Peki iki cümle arasındaki bağlantıyı anlayamadığın zaman bir çıkarım yapmaya çalışır mısın?

Student: Evet. Anlamı çıkarana kadar tekrar tekrar okurum.

Teacher: Peki metni okurken metnin ne tür bir metin olduğunu anlamaya çalışır mısın?

Student: Evet. Birkaç kez okuduktan sonra ne tür bir metin olduğunu anlarım.

Teacher: Bunun ne tür bir metin olduğunu nerden anlamaya çalışırsın?

Student: Teknik terimlerden

Teacher: Teknik terimlerden yola çıkarsın. Başka?

Student: bu kadar.

Teacher: okuduğun metnin belirli türden bir metin olduğuna karar vermenin metnin içerięi ve bu içeriğin sunuluşuyla ilgili tahminler yapmanı ne kadar etkiliyor? Diyelim ki bir makale olsun. Bir makale anlamayı ne kadar etkiler?

Student: güncel konu olabilir.

Teacher: Güncel konu anlamayı kolaylaştırır mı zorlaştırır mı?

Student: kolaylaştırır. İlgi çekicidir.

Teacher: ilgi çekici olan anlamayı kolaylaştırır. Güncel bir şey olduğu zaman seviyene uygun olduğu zaman anlamayı kolaylaştırır. Metni anlamakta zorluk çektin mi?

Student: Bilmediğim kelimelerde

Teacher: birincisi bilmediğin kelimelerde. Başka hangi sıkıntı oldu?

Student: cümleler uzun ve karmaşıktı. Simple language kullanılmamış.

Teacher: Peki burada seni zorlayan kelimeler ve karmaşık cümle yapısı oldu. Peki bunun dışında konu hakkında bilgi sahibi olmama ya da az bilgi sahibi olma anlamını etkiledi mi?

Student: evet etkiledi. Eğer kelimelerin hepsini bilmiş olsam.

Teacher: Hayır kelimedenden ziyade konuyla ilgili ön bilgi sahibi olma global warming warming ısınma Yani bu konuda az bilgi sahibi olmak ya da bilgi sahibi olmamak anlamını etkilemiş olabilir mi?

Student: olabilir.

Teacher: metni okumadan önce global warmingin ne olduğunu biliyor muydun?

Student: biliyorum ama özellikle metinde geçen konuları bilmiyordum.

Teacher: Tabi bu da anlamana etki etmiştir olumsuz olarak. Güncel bir metin olsaydı daha iyi anlardın. Peki metni okurken belirli kısımlar kolay belirli kısımlar zor geldi mi?

Student: evet.

Teacher: Mesela neresi kolay geldi?

Student: Basit kelimelerin geçtiği yerde hemen kolay anlaşılıyor. Ama bilmediğim kelimelerin geçtiği cümle ise o kısımların anlaşılması zor.

Teacher: bildiğim kelimelerin geçtiği yerleri daha kolay anladım. Basit cümlelerin geçtiği yerleri daha kolay anladım. Zor olan bölümler hangisiydi?

Student: uzun cümleler yani karmaşık ve bilinmeyen kelimelerin olduğu kısımlar.

Teacher: peki zor kısımlar metni anlamayı engelledi mi?

Student: evet engelledi.

Teacher: Bundan dolayı da yanlış cevap verdiğini düşünüyor musun?

Student: evet düşünüyorum.

Teacher: Konu hakkında yani global warming ile ilgili ne kadar bilgi sahibisin? Okumadan önce ne kadar bilgin vardı?

Student: bunun kötü etkilerinin olduğunu biliyordum.

Teacher: Peki metni okurken metindeki tüm bilgiler senin için eşit öneme mi sahip?

Student: Metinde geçen her bilgi benim için eşit öneme sahip.

Teacher: Peki sence belirli bilgilerin önemli olması gerekmez mi? Buradaki her bir kelimeyi bilmeme gerek var mı?

Student: hayır hayır

Teacher: ama hepsi eşit öneme sahip diyorsun.

Student: eşit öneme sahip diyorum çünkü hepsini anlamak için her kelimeye önem vermek gerekir.

Teacher: Metni okurken ana fikir ve ana fikri destekleyici bilgiler var mı? Yani ana fikri bulmak için okur musun?

Student: hayır sadece metni anlamak için okurum.

Teacher: genel olarak anlamak yani kelimeyi bilmek, grameri bilmek. Ama ana fikri bilmek gerekmez mi?

Student: anladıktan sonra ana fikri çıkarmak gerekir.

Teacher: genelde ana fikre dikkat etmedin o zaman.

Student: hayır

Teacher: senin için anlamak kelime kelime anlamak demektir. O zaman ana fikre dikkat etmediğine göre ana fikri destekleyen fikirlere de dikkat etmedin.

Student: hayır metni okuduktan sonra destekleyici fikirler çıkıyor. Okuduktan sonra desteklemek gerekiyor.

Teacher: metni okurken not alıyor ve belirli yerlerin altını çiziyor musun?

Student: evet bunu yapıyorum.

Teacher: bunu ne amaçla yaparsın?

Student: önemli yerlerin altını çizerim.

Teacher: Önemli yerlerin altını neden çizersin?

Student: belki ilerde onunla ilgili soru çıkabilir diye altını çizerim.

Teacher: Peki sence metindeki her paragrafın işlevi ve amacı var mıdır? Varsa bunu nasıl ortaya çıkarırsın?

Student: Vardır.

Teacher: Bir örnek ver.

Student: örneğin soyuttan somuta doğru bir sunuş yada tersi olabilir.

Teacher: Peki bunu ortaya çıkarmak için ne yaparsın? Mesela birinci paragrafta bilgi veriliyor bunu nasıl ortaya çıkarırsın? Cümlelerden mi ortaya çıkarırsın?

Student: evet

Teacher: Cümlelerin verdiği mesajdan çıkarıyorsun. Her bir paragrafın işlevi ve amacı olduğunu biliyorsun fakat bunu ortaya koymakta zorlanır mısın?

Student: o paragrafın seviyesine bağlıdır.

Teacher: başka neye bağlıdır?

Student: vocabulary ve gramer

Teacher: Peki metindeki paragraflar arasında bağlantılar olduğunu düşünüyor musun?

Student: evet

Teacher: Peki ne tür bağlantılar olduğunu düşünüyorsun.

Student: dediğim gibi bi başlangıçta mesela özelden genele gitme ya da genelden özele gitme

Teacher: başka ne olabilir? Bu şekildi genelden özele ya da tersi anlamsal bir bağlantı oluşturur diyorsun. Bu özelliklere dikkat ediyorsun. Peki metnin cümleleri arasında da bağlantılar var mıdır? Mesela birinci metnin cümleleri arasında da bağlantılar var mıdır?

Student: vardır.

Teacher: Ne tür bağlantılardır.

Student: yine anlamsal bağlantılar.

Teacher: Bu cümle bu cümleyle bağlantılıdır. Ne biçimde bağlantılı olabilir?

Student: anlam yönünden bilgi yönünden olabilir.

Teacher: biri diğerini destekliyor olabilir. Öncekine zıt bir şey söylenmiş olabilir. Bu biçimde bağlantılar olabilir diyorsun. Peki metindeki her bir cümlelerin amacı ve işlevi var mıdır?

Student: vardır

Teacher: mesela

Student: bir cümle bilgi veriyor olabilir.

Teacher: Başka bir cümle ne yapıyor olabilir?

Student: Destekliyor olabilir. Yardım ediyor olabilir.

Teacher: Bilmediğin kelimeler ve uzun ve karmaşık cümleler metni anlamayı engelliyor mu?

Student: Evet

Teacher: bu tür cümleler okuma isteğini de azaltıyor. Bilmediğin kelimeler metni anlamana engel midir?

Student: evet

Teacher: belli bir sözcük vardır ki o sözcüğün anlamını bilmeden sözcüğün anlamını çıkaramam diyorsun. Metni anlamak için bütün sözcükleri bilmek gerekir mi?

Student: hayır.

Teacher: Bilmediğin sözcüklerin anlamlarını çıkarmaya çalışıyor musun?

Student: sözlük kullanırım.

Teacher: Sözlük dışında bir şey yapmaz mısın?

Student: ilk önce en kolayı contexte bakarım. Ondan sonra bulamazsam sözlüğe bakarım.

Teacher: Metni anlamadığın zaman belli yerleri ana diline çevirir misin?

Student: olabilir.

Teacher: Peki bu çeviriyi neden yaparsın?

Student: ana dilde daha iyi anlayacağımı düşünüyorum.

Teacher: çünkü ana diline daha iyi hakimsin gramerine de kelimesine de Peki tüm bu bilgileri anlamakta zorlandığın zaman kullanır mısın gramer, kelime ben burada zorlanıyorum fakat ne yönden zorlanıyorum diye belirli bilgilerine danışır mısın? Bunlar kelime midir, gramer midir yoksa okuma stratejisi midir?

APPENDIX 4 The Text 'Warning on Global Warming'

1 Global warming could cause drought and possibly famine in China, the source of much of Hong Kong's food, by 2050, a new report predicts. Hong Kong could also be at risk from flooding as sea levels rose. The report recommends building sea walls around low-lying areas such as the new port and airport reclamations. Published by the World Wide Fund for Nature (WWF), the report, which includes work by members of the Chinese Academy of Meteorological Sciences, uses the most recent projections on climate change to point to a **gloomy** outlook for China.

2 By 2050 about 30 to 40 per cent of the country will experience changes in the type of vegetation it supports, with tropical and sub-tropical forest conditions shifting northward and hot desert conditions rising in the west where currently the desert is temperate. Crop-growing areas will expand but any benefit is expected to be **negated** by increased evaporation of moisture, making it too dry to grow crops such as rice. The growing season also is expected to **alter**, becoming shorter in southern and central China, the mainland's breadbasket. The rapid changes make it unlikely that plants could adapt.

3 "China will produce smaller crops. In the central and northern areas, and the southern part, there will be decreased production because of water limitations," Dr. Rik Leemans, one of the authors of the report, said during a brief visit to the territory yesterday. Famine could result because of the demands of feeding the population - particularly if it grows - and the diminished productivity of the land. "It looks very difficult for the world as a whole" he said.

4 Global warming is caused by the burning of large amounts of fossil fuels, such as coal and oil, which release gases that trap heat in the atmosphere. World temperatures already have increased this century by about 0.6 degrees Celsius and are projected to rise by between 1.6 degrees and 3.8 degrees by 2100.

5 Dr. Leemans said China's **reliance** on coal-fired power for its industrial growth did not bode well for the world climate. "I think the political and economic powers in China are much greater than the environmental powers, and (greenhouse gas emissions) could accelerate," Dr. Leemans said. "China is not taking the problem

seriously yet, although it is trying to incorporate this kind of research to see what is going to happen."

6 The climate change report, which will be released tomorrow, focuses on China but Mr. David Melville of WWF-Hong Kong said some of the depressing **scenarios** could apply to the territory. Food supplies, for instance, could be affected by lower crop yields. "Maybe we could afford to import food from elsewhere but you have to **keep in mind** that the type of changes experienced in southern China will take place elsewhere as well," he said. Sea levels could rise as glaciers melted and the higher temperatures expanded the size of the oceans, threatening much of developed Hong Kong, which is built on reclaimed land. Current projections are that sea levels worldwide will rise by 15 to 90 centimeters by 2100, depending on whether action is taken to reduce greenhouse gas emissions.

7 "Hong Kong has **substantial** areas built on reclaimed land and sea level rises could impact on that, not only on Chek Lap Kok but the West Kowloon Reclamation and the Central and Western Reclamation - the whole lot," Mr. Melville said, adding that sea walls would be needed. **Depleted** fresh water supplies would be another problem because increased evaporation would reduce levels. Mr. Melville said the general outlook could be helped if Hong Kong used water less wastefully and encouraged energy efficiency to reduce fuel-burning. He also called on the West to help China improve its efficiency.

Source: Adapted from the South China Morning Post, 04.11.92

Vocabulary

Drought: a long period of time during which no rain falls

Famine: a serious shortage of food in a country which may cause many deaths, as for example in Ethiopia in the 1980's

Temperate: a climate which does not have extremes of heat or cold; a moderate climate

Bode: if something does not bode well, it makes you think that something bad might happen in the future. E.g. Those rain clouds don't bode well for the weather tomorrow.

Glaciers: a huge mass of ice that moves very slowly down a mountain side, often in valleys

1. Overall, what sort of picture is painted of the future effects of global warming?

- (a) disastrous
- (b) potentially disastrous
- (c) relatively optimistic
- (d) on balance things are going to be satisfactory

2. What is this passage?

- (a) a report
- (b) a preview of a report
- (c) an article describing a response to a report
- (d) an article previewing a report

3. Mr. David Melville suggests that in future more food could be imported into Hong Kong. He thinks these measures could be:

- (a) efficient
- (b) sufficient
- (c) insufficient
- (d) inefficient

4. In paragraph 7 which point is Mr Melville NOT making:

- (a) suggesting that there is a potential disaster in Hong Kong
- (b) suggesting that reclamation areas are at risk
- (c) criticizing current safeguards
- (d) making a call for action

5. The main point of paragraph 3 is to describe:

- (a) effects of changes in the climate of China on food production
- (b) future changes in the climate of China
- (c) effects of changes in the climate of China on the growing season
- (d) projected future changes in the climate of China

6. The main point of paragraph 5 is to describe:

- (a) global warming
- (b) the effects of global warming
- (c) the causes and projected effects of global warming
- (d) the causes and effects of global warming

7. How would you describe the Dr. Leeman's attitude towards China:

- (a) mainly favorable
- (b) critical
- (c) supportive in theory
- (d) admiring

8. In paragraph 7 'depleted' could be replaced by which of the following?

- (a) reduced

(b) poor

(c) decaying

(d) decimated

9. In paragraph 1 'gloomy' is closest in meaning to:

(a) healthy

(b) gradually deteriorating

(c) declining

(d) pessimistic

10. In paragraph 1 'negated' is closest in meaning to:

(a) made possible

(b) made ineffective

(c) reduced

(d) paid for

11. Why does the writer add the information in brackets in paragraph 5? (a) because the quote is from a second language user whose command of English is not perfect (b) because, although they are not part of the original quote, the additional information given is necessary to understand the statement

(c) because the writer is quoting from another source

(d) because the writer wants to emphasize the meaning of these words

12. In paragraph 1 'alter' is closest in meaning to:

(a) cause

(b) alternate

(c) change

(d) recede

13. In paragraph 6 'keep in mind' is closest in meaning to:

(a) see

(b) analyze

(c) predict

(d) remember

14. In paragraph 6 'substantial' could be replaced by which of the following?

(a) considerable

(b) worthwhile

(c) well built

(d) strong

15. In paragraph 6 'depleted' could be replaced by which of the following?

(a) exhausted

(b) emptied

(c) reduced

(d) deplorable

16. In paragraph 3 'reliance' is closest in meaning to which of the following:

(a) stress

(b) emphasis

(c) dependence

(d) referendum

APPENDIX 5 The Text 'The Real Thing?'

1 One of the most successful commercial products ever launched is said to have come about as the result of a mistake. In 1896, Jacob's Pharmacy in Atlanta, Georgia, was selling a nerve tonic known as 'French Wine Cola - Ideal Nerve Tonic'. By accidentally adding fizzy water instead of still water to the recipe, a pharmacist called John S. Pemberton invented what has today become the most popular soft drink in the world: Coca-Cola. **Along** with its closest rival - Pepsi - which appeared on the market three years later, **Coke** has enjoyed phenomenal success worldwide, particularly in the past fifty years. Indeed, old Coke bottles and 'limited edition' **cans can often fetch considerable sums** from collectors, and there are even stores which deal exclusively in Coke products and **memorabilia**.

2 What could possibly account for the amazing success of Coca-Cola? **How** has this combination of carbonated water, sugar, acid and flavorings come to symbolize the American way of life for most of the world? **After all**, even the manufacturers could hardly describe Coke as a healthy product since it contains relatively high amounts of sugar (admittedly not the case with Diet Coke which contains artificial sweeteners instead of sugar) and phosphoric acid, **both of which** are known to damage teeth.

3 One explanation may be found in the name. The original recipe included a flavoring from the coca plant and probably included small amounts of cocaine (an addictive substance), but since the early part of this century all traces of cocaine have been removed. However, Coke (like all cola drinks) also includes a flavoring from the cola tree; cola extract contains caffeine, which is a stimulant, and the **Coca-Cola** Company adds extra caffeine **for good measure**. While caffeine is not thought to be an addictive substance in itself, there is considerable evidence that over a period of time the consumption of caffeine has to be increased in order for its stimulating effect to be maintained, and so sales of Coke perhaps benefit as a result.

4 A more likely reason for the **enduring** popularity of Coke may, however, be found in the company's **enviable** marketing strategies. Over the years it has come up with some of the most memorable commercials, tunes, slogans and sponsorship in the world of advertising, **variously emphasizing** international harmony, youthfulness and a carefree lifestyle. Few other companies (arguably including Pepsi) have been able to

match such marketing ploys so consistently or effectively. As suggested earlier, the influences of American culture are evident **just about everywhere**, and Coca-Cola has somehow come to represent a vision of the United States that much of the rest of the world dreams about and aspires to. **Perhaps** drinking Coke brings people that little bit closer to the dream.

1. In paragraph 1, 'cans can often fetch considerable sums' means the same as:

- (a) Coke is quite expensive in some parts of the world
- (b) collectors consider carefully how much they are paying for a can of Coke
- (c) some collectors will only drink Coke in exclusive stores
- (d) certain Coke cans are worth a lot of money as collectable items

2. The writer uses 'for good measure' in paragraph 3 to emphasize the fact that:

- (a) there is a lot of caffeine in Coke
- (b) the amount of caffeine in Coke is carefully measured
- (c) the extra caffeine improves the taste of Coke
- (d) the extra caffeine balances the amount found naturally in the cola extract

3. 'Coke has enjoyed phenomenal success' paragraph 1 suggests the writer:

- (a) thinks that the success of Coke is very strange
- (b) believes that the success of Coke has been impressive
- (c) rather disapproves of the success of Coke
- (d) considers the success of Coke to be undeserved

4. Describing Coke's marketing strategies as 'enviable' in paragraph 4, means that:

- (a) the strategies are based on envy

- (b) Coke's marketing staff are encouraged to be envious of each other's ideas
- (c) people are persuaded to buy Coke because they are envious of others
- (d) rivals are envious of the Coke company's successful methods of marketing

5. 'Variously emphasizing' in paragraph 4 is closest in meaning to:

- (a) stressing at different times
- (b) using a wide variety of emphasis
- (c) stressing at the same time
- (d) using a particular order of emphasis

6. In the last sentence of the passage the writer implies that:

- (a) most people would like to live in America
- (b) many people wish for a lifestyle like they imagine most Americans have
- (c) drinking Coke reminds a lot of people of visiting America
- (d) living in the United States is a bit like living in a dream

7. 'both of which' in paragraph 2 refers to:

- (a) phosphoric and acid
- (b) sugar and artificial sweetener
- (c) sugar and phosphoric acid
- (d) artificial sweetener and phosphoric acid

8. In paragraph 1, the writer points out that:

- (a) Coke is so popular that some shops sell nothing else
- (b) only certain people are allowed to enter the most popular Coke stores

(c) some stores can successfully sell Coke at higher prices

(d) Coke is so popular that some shops only sell goods with the Coke label

9. The sentence in lines 33-35 means that:

(a) Pepsi and a few other companies have had better marketing than Coca-Cola

(b) the Coke company has been more successful in marketing than most others

(c) some companies have copied Coca-Cola's marketing strategies very effectively

(d) no other company has been as successful as Coca-Cola in marketing its products

10 'just about everywhere' in paragraph 4 is closest in meaning to:

(a) in a lot of countries

(b) in every part of the world

(c) in a majority of places

(d) in almost every part of the world

11 Which of the following is closest in meaning to 'memorabilia' in paragraph 1:

(a) clothing

(b) souvenirs

(c) containers

(d) packages

12. In the last sentence of paragraph 2, the writer implies that:

(a) it is easy for the company to argue that Coke is a healthy drink

(b) he/she considers Coke to be unhealthy as a drink

(c) the company believes Coke is not an unhealthy product

(d) Coke is, in fact, quite a healthy drink

13. 'Along with its closest rival – Pepsi' paragraph 1 refers to the fact that:

(a) Coke and Pepsi work very closely together

(b) Pepsi is Coke's only competitor

(c) Coke and Pepsi are competitors in the same market

(d) Coke and Pepsi between them keep rivals out of the market

14. In the second sentence of paragraph 2, the writer seems surprised that:

(a) something so normal could have such importance

(b) all the ingredients can be found in most countries

(c) most of the ingredients are not very healthy

(d) Coke must be so easy to produce

15. Which of the following is closest in meaning to 'enduring' in paragraph 4:

(a) amazing

(b) surprising

(c) diminishing

(d) lasting

16. Which of the following statements about the passage is true:

(a) Cocaine and caffeine are addictive substances

(b) At least one of the ingredients of Coke is addictive

(c) The stimulating effect of caffeine is reduced over time unless consumption of it is increased

(d) The Coca-Cola company has gradually increased the amount of caffeine it puts in Coke

APPENDIX 6 The Text 'Nuclear Weapons'

1 It is generally well known that in a number of particularly dangerous parts of the world, for example the Middle East and the India/Pakistan border region, there are countries which either possess, or have the technology to produce, nuclear weapons. It is also worth remembering, however, that the country which possesses more nuclear weapons than any other, the United States, is the only power ever to have used nuclear weapons against people.

2 Nuclear weapons were first developed in the United States during the Second World War, to be used against Germany. However, by the time the first bombs were ready for use, the war with Germany had ended and, as a result, the decision was made to use the weapons against Japan instead. Hiroshima and Nagasaki have suffered the consequences of this decision to the present day.

3 The real reasons why bombs were dropped on two heavily-populated cities are not altogether clear. A number of people in 1944 and early 1945 argued that the use of nuclear weapons would be unnecessary, since American Intelligence was aware that some of the most powerful and influential people in Japan had already realized that the war was lost, and wanted to negotiate a Japanese surrender. It was also argued that, since Japan has few **natural resources**, a **blockade** by the American navy would force it to surrender within a few weeks, and the use of nuclear weapons would thus prove unnecessary. If a **demonstration of force** was required to end the war, a bomb could be dropped over an unpopulated area like a desert, in front of Japanese observers, or over an area of low population inside Japan, such as a forest. Opting for **this** course of action might minimize the loss of further lives on all sides, while the power of nuclear weapons would still be adequately demonstrated.

4 All of these arguments were rejected, however, and the general consensus was that the quickest way to end the fighting would be to use nuclear weapons against centres of population inside Japan. In fact, two of the more likely reasons why this decision was reached seem quite shocking to us now.

5 Since the beginning of the Second World War both Germany and Japan had adopted a policy of genocide (i.e. killing as many people as possible, including

civilians). Later on, even the US and Britain had used the strategy of fire bombing cities (Dresden and Tokyo, for example) in order to kill, injure and **intimidate** as many civilians as possible. Certainly, the general public in the West had become used to hearing about the deaths of large numbers of people, so the deaths of another few thousand Japanese, who were the enemy **in any case**, would not seem particularly unacceptable - a bit of '**justifiable**' revenge for the Allies' own losses, perhaps.

6 The second reason is not much easier to comprehend. Some of the leading scientists in the world had **collaborated** to develop nuclear weapons, and this development had resulted in a number of major advances in technology and scientific knowledge. As a result, a lot of **normal, intelligent people** wanted to see nuclear weapons used; they wanted to see just how destructive this new invention could be. It no doubt turned out to be even more 'effective' than they had imagined.

Allies: Countries working together for mutual benefit, during a war, for example.

1. In paragraph 1, the writer is suggesting that:

- (a) the United States should, if necessary, use nuclear weapons again
- (b) the United States is more likely than other countries to use nuclear weapons
- (c) the United States is one of several countries to have used nuclear weapons
- (d) the United States could potentially use nuclear weapons again

2. The writer refers to 'a demonstration of force' in paragraph 3 refer to:

- (a) a show of strength
- (b) a full attack
- (c) a parade of weapons
- (d) a meeting between the armies

3. According to paragraph 3, a blockade would have been successful because:

- (a) Japan has to import most of its natural resources like coal and steel

- (b) Japan would not be resourceful enough to beat a blockade
- (c) an attack would probably destroy Japanese resources within a few weeks
- (d) the Americans could defeat Japan's navy since it was short of resources

4. In the last sentence of paragraph 6, the writer implies that:

- (a) he agrees with the decision to use nuclear weapons against Japan
- (b) he thinks the decision to drop nuclear bombs on Japanese cities was wrong
- (c) nuclear weapons worked much better than the scientists probably expected
- (d) the weapons proved to be effective because Japan surrendered soon after

5. The first sentence of paragraph 6 suggests the writer believes that:

- (a) the decisions were made by intelligent people and were difficult to follow
- (b) his presentation of the argument in paragraph 5 is difficult to understand
- (c) the reasons given for the decision are hard for us to accept nowadays
- (d) the decisions were complex and made by highly intelligent people

6. According to paragraph 5, which of the following is true:

- (a) people in the West had got used to hearing the sounds of people dying
- (b) it would probably not be wise to inform people in the West of the deaths
- (c) scientists thought only a few thousand people would die if the bombs were used
- (d) people in the West would accept that some people had to die to end the war

7. How many reasons against using the weapons are given in paragraph 3:

- (a) two
- (b) three

(c) four

(d) five

8. From the last sentence of paragraph 4, we can infer that:

(a) the real reasons for the decision may never have been made clear

(b) the writer probably expects us not to agree with his opinion

(c) the writer has not done much research on this subject to establish the facts

(d) the writer has attempted to present the facts as objectively as possible

9. Which of the following could be used instead of 'in any case' in paragraph 5:

(a) all the time

(b) anyway

(c) any time

(d) in this respect

10. Which of the following is closest in meaning to 'blockade' in paragraph 3:

(a) siege

(b) bombing

(c) attack

(d) defence

11. What does 'this' refer to in paragraph 3:

(a) blockading Japan and dropping a nuclear bomb on an area of low population

(b) using a bomb against some Japanese observers or on an area of low population

(c) dropping a bomb in an area of low population in front of Japanese witnesses

(d) dropping a nuclear weapon over a forest in Japan

12. Which of the following could best replace 'natural resources' in paragraph 3:

(a) characteristics such as determination and resourcefulness

(b) ports and harbors

(c) workers with natural ability

(d) materials such as coal and iron

13. Which is closest in meaning to the last sentence of paragraph 2:

(a) the cities of Hiroshima and Nagasaki were badly damaged when they were bombed

(b) Hiroshima and Nagasaki suffered because Japan would not agree to end the war

(c) the awful effects of dropping nuclear bombs on these cities can still be felt

(d) the end of the war with Germany meant that Hiroshima and Nagasaki would suffer

14. Which of the following does 'a demonstration of force' in paragraph 3 refer to:

(a) a show of strength

(b) a full attack

(c) a parade of weapons

(d) a meeting between the armies

15. In paragraph 6, 'collaborated' is closest in meaning to:

(a) argued about

(b) decided

(c) worked together

(d) held conferences

16. 'justifiable' in paragraph 5 is in inverted commas because:

(a) the word is used in an unusual way

(b) the writer is quoting from the decision makers

(c) it is not really correct English

(d) it might not be altogether appropriate here