

TO MY BELOVED PARENTS

STUDENTS' AWARENESS OF READING STRATEGIES

Graduate School of Education

of

Bilkent University

by

FEVZİYE KANTARCI

In Partial Fulfillment of the Requirements for the Degree of
MASTER OF ARTS

in

THE DEPARTMENT OF
TEACHING ENGLISH AS A FOREIGN LANGUAGE
BILKENT UNIVERSITY
ANKARA

JULY 2006

BILKENT UNIVERSITY
GRADUATE SCHOOL OF EDUCATION
MA THESIS EXAMINATION RESULT FORM

June 23, 2006

The examining committee appointed by the Graduate School of Education for the
thesis examination of the MA TEFL student

Fevziye Kantarcı

has read the thesis of the student.

The committee has decided that the thesis of the student is satisfactory.

Thesis Title: Students' Awareness of Reading Strategies

Thesis Advisor: Dr. Charlotte Basham
Bilkent University, MA TEFL Program

Committee Members: Dr. Johannes Eckerth
Bilkent University, MA TEFL Program

Dr. Hande Işıl Mengü
Bilkent University, School of English Language

I certify that I have read this thesis and have found that is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Dr. Charlotte Basham
(Supervisor)

I certify that I have read this thesis and have found that is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Dr. Johannes Eckerth
(Examining Committee Member)

I certify that I have read this thesis and have found that is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Dr. Hande Işıl Mengü
(Examining Committee Member)

Approval of the Graduate School of Education

Visiting Prof. Dr. Margaret Sands
(Director)

ABSTRACT

STUDENTS' AWARENESS OF READING STRATEGIES

Kantarıcı, Fevziye

MA., Department of Teaching English as a Foreign Language

Supervisor: Dr. Charlotte Basham

July 2006

This study investigated (a) the university students' existing reading strategy repertoires, (b) the impact of instruction in top-down reading strategies on their strategic performance, (c) the strategies that students were able to apply in their reading processes, and (d) the relationship between the students' reported frequency of strategy use and the employment of strategies in their reading practice. The study was conducted with 20 intermediate level students and their classroom teacher in the School of Foreign Languages at Erciyes University in the spring semester of 2006.

After the first administration of the Reading Strategy Questionnaire, a three-week explicit strategy instruction in top-down reading strategies was provided. Following the treatment, the same questionnaire was administered a second time in order to determine the effects of the consciousness-raising program. Think-aloud

protocols and post-treatment interviews conducted with 5 volunteer students enriched the study with qualitative data.

The statistical correlation of the pre- and post-questionnaires showed that there were significant increases in the means of top-down strategies after the treatment while a slight decrease occurred in students' bottom-up strategy use. However, think-aloud protocols demonstrated that students tended to use bottom-up strategies more in their reading practice. These findings were also supported by the interviews.

Key words: Reading strategies, top-down reading strategies, bottom-up reading strategies, reading strategy instruction, and strategic reader.

ÖZET

ÖĞRENCİLERİN OKUMA STRATEJİLERİNE İLİŞKİN BİLİNÇLİLİK DÜZEYİ

Kantarıcı, Fevziye

Yüksek Lisans, Yabancı Dil Olarak İngilizce Öğretimi Bölümü

Tez Yöneticisi: Dr. Charlotte Basham

Temmuz 2006

Bu çalışma, (a) üniversite öğrencilerinin mevcut strateji dağarcıklarını, (b) ‘top-down’ okuma stratejileri üzerine verilen eğitimin stratejik performansları üzerindeki etkisini, (c) öğrencilerin okuma süreçlerinde kullanabildikleri stratejileri, ve (d) öğrencilerin bildirdikleri okuma stratejisi kullanım sıklıkları ile uygulamada kullandıkları stratejiler arasındaki ilişkiyi araştırmıştır. Çalışma Erciyes Üniversitesi, Yabancı Diller Yüksekokulu’nda eğitim gören orta seviyedeki 20 öğrenci ve onların sınıf öğretmenleri ile yürütülmüştür.

Okuma Stratejileri Anketinin ilk uygulamasından sonra ‘top-down’ stratejileri üzerine üç haftalık strateji eğitimi verilmiştir. Strateji eğitimi yoluyla bilinç artırma programının etkilerinin incelemesi amacıyla öğrenciler eğitimi takiben aynı anketi

ikinci kez cevaplandırmışlardır. 5 gönüllü öğrenci ile yapılan sesli düşünme metodu ve eğitim sonrası mülakatlar, bu çalışmayı nitel verilerle zenginleştirmiştir.

Eğitim öncesi ve sonrası anketlerinin istatistiksel korelasyonu, eğitim sonrasında öğrencilerinin ‘bottom-up’ strateji kullanımında ufak bir düşüş olduğunu, ‘top-down’ stratejilerinin ortalamalarında ise anlamlı farklılıklar ortaya çıktığını göstermiştir. Bununla birlikte, sesli düşünme metodu sonuçları öğrencilerin okuma süreçlerinde daha çok ‘bottom-up’ stratejisi kullanma eğiliminde olduklarını göstermiştir. Bu bulgular mülakat sonuçları ile de desteklenmiştir.

Anahtar kelimeler: Okuma stratejileri, ‘top-down’ okuma stratejileri, ‘bottom-up’ okuma stratejileri, okuma stratejileri eğitimi, ve stratejik okuyucu.

ACKNOWLEDGEMENTS

This thesis has come into being with the help of several people. Without their support, it was impossible to complete this short but demanding period.

First of all, I would like to express my gratitude to my supervisor Assoc. Prof. Dr. Charlotte Basham for the invaluable guidance, feedback and continuous support she gave all through the year. I would also like to thank her for all the motherly infinite patience she showed in this challenging process.

I would like to say thank you to all the members of MA TEFL Program, Asst. Prof. Dr. Johannes Eckerth for his assistance and contribution to this study, Lynn Basham for all the interesting ideas he gave and his feedback, Dr. Bill Snyder for his inspiring seminars and his invaluable experience he shared with us, Prof. Dr. Theodore Rodgers for all the fun he brought to the program with his songs, poems and parties. Special thanks to Dr. Hande Işıl Mengü for being in my committee and for her guidance.

I would like to express my appreciation to Asst. Prof. Dr. Adem S. Turanlı, Director of the School of Foreign Languages for allowing me to attend MA TEFL Program and for all the friendly and academic support he gave.

I would like to thank all my colleagues at Erciyes University for not leaving me alone all through the year. I owe special thanks to my dear friend Nilgün Karsan for all the encouragement she gave on the phone and for her invaluable helps in the data collection weeks, Birol Akyüz for introducing me with MA TEFL Program, Dr. Emil Ertuğrul Atbaş for the academic support he gave especially in designing my

research, Sevgi Erel and Zübeyde Bakanyıldız for helping me with the calculations of the inter-rater reliability.

Thanks to the students in the School of Foreign Languages who volunteered to participate in my study.

I am grateful to my former student Alper Aslan who has become my statistics teacher recently for all his help for the statistical analysis of my study.

I would like to thank Hatice Emre for her friendship and all the support she gave throughout this year, and Banu Özkan for our online academic chats.

I would like to say thank you to the MA TEFL Class of 2006. Special thanks to all dorm girls, academic Elif Kemaloğlu, semi-genius Meral Ceylan, Hayyamic Serpil Gültekin, astrologist Pınar Özpınar, motherly Fatma Bayram, serene Yasemin Tezgiden and photogenic photographer Emel Çağlar for everything we share and the real and lifelong friendship we have established. Thanks to Yasemin (Tezgiden, 2006) for her cooperation in the thesis writing process and for being the “aunt” of my thesis.

Last but not least, I would like to thank my mother and my father for their endless love, patience and encouragement. Without their love and affection, I would not be able to succeed in life. I would also like to thank my brother, my sister-in-law, and my nephew for their love and support.

TABLE OF CONTENTS

ABSTRACT.....	iv
ÖZET.....	vi
ACKNOWLEDGEMENTS.....	viii
TABLE OF CONTENTS.....	x
LIST OF TABLES.....	xiv
LIST OF FIGURES.....	xv
CHAPTER I: INTRODUCTION.....	1
Introduction	1
Background of the Study.....	2
Statement of the Problem.....	4
Research Questions.....	5
Significance of the Study.....	5
Key Terminology.....	6
Conclusion.....	7
CHAPTER II: REVIEW OF LITERATURE.....	8
Introduction.....	8
Reading.....	9
Models of Reading.....	10
Schema Theory.....	13
Reading Strategies.....	15
The Classification of Reading Strategies.....	17
Successful and Unsuccessful Readers' Strategy Use.....	20
Reading Strategy Instruction.....	23

Approaches in Reading Strategy Instruction.....	25
Factors Affecting Reading Strategy Instruction.....	29
Difficulties of Strategy Instruction.....	31
Conclusion.....	32
CHAPTER III: METHODOLOGY.....	33
Introduction.....	33
Participants.....	33
Instruments.....	34
Reading Strategy Questionnaire.....	34
Reading Strategy Instruction.....	35
Classroom Observation.....	38
Think-Aloud Protocols.....	38
Interviews.....	41
Data Collection Procedures.....	41
Methods of Analysis.....	43
Conclusion.....	44
CHAPTER IV: DATA ANALYSIS.....	45
Overview of the Study.....	45
Analyses of the Questionnaires.....	47
Results of the Pre-Questionnaire.....	47
Results of the Post-Questionnaire.....	49
Comparison of the Pre- and Post-Questionnaires.....	50
Analyses of the Think-Aloud Protocols and Follow-up Questions.....	54

Strategies Identified in the Think-Aloud Protocols and	
Follow-up Questions	55
Before-Reading Strategies Identified in the Think-Aloud	
Protocols.....	60
While-Reading Strategies Identified in the Think-Aloud	
Protocols.....	61
After-Reading Strategies Identified in the Think-Aloud	
Protocols.....	64
Bottom-up and Top-down Strategies in the Think-Aloud	
Protocols.....	66
Comparison of the Questionnaire and Think-Aloud Protocol Results.....	67
Analyses of the Post-Treatment Interviews.....	70
Results of the Post-Treatment Interviews.....	70
Conclusion.....	74
CHAPTER V: CONCLUSIONS.....	76
Introduction.....	76
Findings and Discussion.....	77
Pedagogical Implications.....	85
Limitations of the Study.....	86
Suggestions for Further Research.....	88
Conclusion.....	89
REFERENCES.....	90
APPENDICES.....	97
A. Reading Strategy Questionnaire.....	97

B. Okuma Stratejileri Anketi.....	100
C. Sample of Lesson Plans.....	103
D. Sesli Düşünme Metodu Uygulaması Örneği.....	109
E. Sample Sequence from Think-Aloud Protocols.....	112
F. Coding Scheme for Think-Aloud Protocols.....	115
G. Sample of Students' Responses to the Follow-up Questions.....	118
H. Eğitim Sonrası Öğrenci Mülakatı Örneği.....	120
I. Sample of Post-Treatment Interview.....	123
J. Classification of the Items in Reading Strategy Questionnaire.....	126
K. Consent Form.....	128
L. Onay Formu.....	129

LIST OF TABLES

1. The Top-down Strategies Emphasized in the Instruction.....	36
2. The Sequence of the Processes in Think-Aloud Protocols.....	40
3. The Rank Order of the Top-Down Strategies in the Pre-Questionnaire.....	48
4. Overall Comparison of the Pre- and Post-Treatment Questionnaires.....	50
5. The Comparison of the Pre- and Post-Questionnaire Items.....	51
6. The Categories of the Strategies Before and After the Treatment.....	53
7. Sample Excerpts from the Think-Aloud Protocols.....	56
8. Before-Reading Strategies Used in the Think-Aloud Protocols.....	60
9. While-Reading Strategies Used in Think-Aloud Protocols.....	61
10. After-Reading Strategies Used in Think-Aloud Protocols.....	65
11. Top-Down and Bottom-up Strategies in the Think-Aloud Protocols.....	66
12. Bottom-up and Top-down Strategies in Think-Aloud Protocols and Questionnaires.....	68
13. The Strategies Reported as Useful and Difficult in the Post-Treatment Interviews.....	71

LIST OF FIGURES

1. CALLA framework for strategy instruction	28
2. CALLA Instructional Sequence: Five recursive phases	37
3. Data collection procedures.....	43

CHAPTER I: INTRODUCTION

Introduction

Reading is a complicated skill since it requires the combination of “attention, memory, perceptual processes, and comprehension processes” (Kern, 1989, p. 135). Because it is a demanding process to master, the application of reading strategies is required for efficient reading. Reading strategies are defined as conscious mental activities which enable the reader to construct the meaning from a text (Aebbersold & Field, 1997; Grabe & Stoller, 2002). 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). Research has indicated that while successful readers are able in these components, less successful ones need consciousness-raising programs to be more aware of reading strategies and to develop competence and confidence in reading (Allen, 2003; Grant, 1994).

The purpose of this study is to investigate (a) existing reading strategy repertoires of the students in the School of Foreign Languages at Erciyes University, (b) the impact of strategy training in top-down reading strategies on students’ strategic performance, (c) the strategies that students are able to apply in their reading processes, (d) the relationship between students’ reported frequency of strategy use and the employment of strategies in their reading practice.

Background of the Study

Reading involves both comprehension and interpretation of a text by using questions formulated by the reader (Smith, 1982 as cited in Grabe, 1986). Thus, different levels of cognitive processes are required for efficient reading. These cognitive processes have been emphasized in various models of reading in the literature, and three main models - bottom-up, top-down and interactive - have been formed in order to describe how reading occurs.

Bottom-up models assume that the reader comprehends the text in a linear manner beginning from the smallest units of the text through the understanding of the overall meaning (Aebersold & Field, 1997). In contrast, in top-down models, readers do not have to focus on all the textual cues, since the primary goal of reading is the comprehension of the overall meaning of the text through hypotheses formulation and confirmation with the help of linguistic and world knowledge (Anderson, 1999; Carrell, 1996). The interactive approach provides a compound of these two approaches. In this approach, the interaction which occurs both between the reader and the text, and between the bottom-up and the top-down processing is stressed. Interactive reading requires the link between the textual information from the text and the reader's background knowledge (Grabe, 1991).

In all the aforementioned approaches of reading, the application of strategies for efficient reading is emphasized, yet from different perspectives. Learning strategies are defined as "the special thoughts and behaviors that individuals use to help them comprehend, learn, or retain new information" (O'Malley & Chamot, 1990, p. 1). In the same sense, Grabe and Stoller (2002) define reading strategies as "a set of abilities under conscious control of the reader" (p. 15). While the word-level

strategies are emphasized in the bottom-up approach, text-level strategies are of primary importance for the top-down text processing. However, it has been observed that the interactive use of both strategy types result in strategic and efficient reading (Cohen, 1990; Urquhart & Weir, 1998).

Successful readers use both bottom-up and top-down strategies simultaneously according to their altering purposes and the difficulties occurring during their reading processes. However, research has revealed that as opposed to their successful peers, poor readers generally tend to rely more on bottom-up strategies (Auerbach & Paxton, 1997; Block, 1992; Salatacı & Akyel, 2002; Uzunçakmak, 2005). Thus, poor readers cannot make use of the strategies interactively, and they need to be provided with strategy instruction.

As emphasized in various studies, effective reading strategy instruction should involve training in when, where and how to use strategies in harmony (Carrell, 1989; Oxford, 2001; Pearson & Fielding, 1991) rather than instructions on individual reading strategies, since the long-term purpose of strategy training is to raise students' awareness of reading strategies and to create independent strategic readers (Grabe & Stoller, 2002).

There have been various studies in the literature conducted to investigate the impacts of strategy training on students' strategy use (Anderson, 1991; Auerbach & Paxton, 1997; Kern, 1989). The results of these studies exploring both students' strategic behaviors and the effects of strategy training have demonstrated the positive outcomes of strategy instruction in terms of raising students' awareness of reading strategies and promoting efficient reading (Aarnoutse & Schellings, 2003; Alfassi, 2004; Auerbach & Paxton, 1997; Salatacı & Akyel, 2002).

Statement of the Problem

Research on reading strategies, both in the international and in the Turkish context, falls into two broad categories: (1) the studies which investigate the students' strategy repertoires (Block, 1986, 1992; Uzunçakmak, 2005; Wade, 1990), and (2) the studies searching the effects of strategy instruction (Aarnoutse & Schellings, 2003; Alfassi, 2004; Auerbach & Paxton, 1997; Carrell, Pharis & Liberto, 1989; Hosenfeld, 1984; Kern, 1989; Sadık, 2005; Salatacı & Akyel, 2002;). Although all these studies have provided a broad understanding of students' mental processes while reading as well as their perceptions of reading strategies and explicit strategy instruction, there have been few studies which combine these two broad categories, investigating both students' mental processes in practice and the impacts of explicit strategy instruction.

As for the foreign language education in Turkey, reading has an important role since students have to deal with some lengthy texts not only in their preparatory education but also in all their academic studies. In this respect, strategy training is an important component of reading lessons since it can facilitate the complex process of reading for language learners. However, in the School of Foreign Languages at Erciyes University, although students are presented reading strategies implicitly by using the current textbook, they are not offered much opportunity to practice these strategies on the reading texts. In addition, students seem to attach more importance to the word level understanding than purposeful reading in a top-down manner. Considering the current situation of strategy instruction at the institutional level, this study, then, aims to investigate students' existing strategic performances and the effects of strategy training in top-down strategies. In addition, students' awareness of

reading strategies will be elaborated by the comparison of their self-assessment of their frequency of reading strategy use with the employment of strategies in their reading practice.

Research Questions

This study addresses the following research questions:

1. What reading strategies do the students in the School of Foreign Languages at Erciyes University report using?
2. What are the impacts of the strategy training on students' subsequent use of top-down reading strategies?
3. What strategies are students able to apply in their reading processes while dealing with a text?
4. What is the relationship between students' reported strategy use and their strategic performances in their reading practice?

Significance of the Study

Reading in L2 and reading strategies have been frequently studied topics in the literature. However, there are few studies in the literature searching students' strategic performances in reading practice and their awareness of reading strategies (Block, 1986, 1992; Wade, 1990). In fact, research indicates that language teachers generally do not know what strategies their students are able to use, unless they conduct a kind of research (Oxford & Crookall, 1989). So, the purpose of this study is to complete this gap in the literature by focusing on both the strategies students report using and the ones they are able to employ in their reading practice. Not only the frequency but also the qualitative aspects of students' strategy use will be addressed via questionnaires and think-aloud protocols with the intention of

exploring students' awareness of reading strategies, and thus providing insights into students' strategic behaviors for the teachers applying reading strategy training at the university level. As the core of this study is explicit strategy instruction in top-down reading strategies, this study will also contribute to the existing information about the impacts of explicit reading strategy instruction.

The findings related to the students' strategic performances are expected to be beneficial for the teaching of reading at Erciyes University in terms of raising teachers' awareness of their students' needs. In addition, the consciousness-raising program providing explicit strategy instruction in top-down reading strategies will offer new perspectives of teaching reading and reading strategies for the teachers in the School of Foreign Languages, since the lesson plans designed by the researcher will provide models for teachers to re-examine their current methods of strategy training.

Key Terminology

The frequently used terms throughout this study are as follows:

Reading Strategies: Conscious mental operations used by the reader with the purpose of constructing the meaning of a text (Aebersold & Field, 1997; Kern, 1989).

Top-down Reading Strategies: Strategies which enable the comprehension of the overall meaning of the text by using the background knowledge, predictions, skimming and scanning (Barnett, 1988).

Bottom-up Reading Strategies: Strategies which emphasize the recognition of words by focusing on the individual word meanings and grammatical structures for

the comprehension of the text beginning from the smallest units (Barnett, 1988; Urquhart & Weir, 1998).

Reading Strategy Instruction: Explicit instruction which aims to raise students' awareness of the strategic nature of reading and create independent and active readers (Grant, 1994).

Strategic Reader: A reader who is able to use strategies according to his/her changing purposes and task demands in different combinations flexibly (Janzen & Stoller, 1998).

Conclusion

In this chapter, an introduction to the study has been provided with the presentation of background of the research, statement and significance of the problem and key terminology. The second chapter will review the literature on reading and reading strategies. In the third chapter, the research design will be explained by giving the details about the instruments used in the data collection procedures. The fourth chapter is dedicated to the analyses of both the qualitative and the quantitative data. In the last chapter, the findings of this study will be discussed regarding the reading research, and the pedagogical implications of the study will be elaborated.

CHAPTER II: REVIEW OF LITERATURE

Introduction

Reading in L2 serves not only as a source of input, but also as a way of developing language learning (Cohen, 1990). However, it is a demanding process which involves many different cognitive processes and linguistic requirements. McDonough (1995) has pointed out some of the basic components of reading as “word recognition, syntactic interpretation, assignment of meaning, and interpretation of the message” (p. 40). In order to be successful in these constituents and read effectively in L2, interactive text processing is a must.

In the interactive reading process, the application of both bottom-up and top-down strategies is emphasized. While bottom-up strategies are beneficial for the word-level decoding, top-down strategies are required to comprehend the overall meaning of the text by using both the textual elements and readers’ own schemata, or frames of reference. It is essential to use elements of both strategy types to read interactively and to compensate the comprehension problems (Grabe & Stoller, 2002; Urquhart & Weir, 1998).

Research has shown that while successful readers are able to employ reading strategies effectively, less successful ones need training to be aware of the principles of strategic reading. It has also been demonstrated that strategy instruction has a positive influence especially on poor readers’ reading performances since it raises

their consciousness of reading strategies and improves their comprehension (Carrell et al., 1989; Kern, 1989; Salatacı & Akyel, 2002).

Considering the large body of research on reading and reading strategies, this literature review is divided into three sections. The first section discusses selected models of reading. Reading strategies, their classification, and successful and unsuccessful readers' strategy use will be reviewed in the second section. Finally, the third section focuses on strategy instruction by discussing approaches, promoting factors and its challenges.

Reading

Reading is defined differently in various sources, and all these definitions provide invaluable insights about the nature of reading. Grabe and Stoller (2002) define reading as “the ability to draw meaning from the printed page and interpret the information appropriately” (p. 9). However, reading is much more complex than just the extraction and the interpretation of the meaning due to its being a cognitive process which involves many mental activities according to readers' purposes. Regarding this changeable characteristic of reading, it is viewed as an active process which requires both “identification skills” to decode the text, and “interpretation skills” to comprehend it as a coherent whole (Cohen, 1990, p. 75). In this view, the reader is seen as an active individual who interacts with the text in order to construct meaning and tries to solve comprehension problems by using a number of reading strategies as facilitators (Silberstein, 1994).

Within the view of active reading, the notion of fluent reading and its characteristics have also been named frequently in the literature. Grabe (1991) describes the characteristics of fluent reading as “rapid, purposeful, interactive,

comprehending, flexible, and gradually developing” (p. 378). Fluent reading is “rapid” since it is essential to maintain the flow of the text. In addition, it involves the interaction of different processes of reading as well as the interaction between the reader, the text and the reader’s prior knowledge with the final purpose of comprehending the text and the messages it conveys. It is also “flexible” because readers benefit from different strategies according to their changing purposes in the act of reading. And lastly, it is “gradually developing” since the mastery of fluent reading requires long-term practice. Grabe (1991) adds that fluent reading involves “evaluation skills” as well because it is necessary for readers to critique the textual information, and assess their own reading performances (p. 381).

Regarding the descriptions of active and fluent reading, three main dynamics of reading comprehension and information processing are mentioned in the literature: (a) the activation of the prior knowledge about the content, (b) the identification of the linguistic features of the text, (c) the efficient application of reading strategies (Thompson, 1987).

Models of Reading

Three main models of reading have been developed as a result of many studies conducted in the last three decades to investigate the cognitive processes in reading. These three general models - bottom-up, top-down and interactive - represent metaphorical explanations of readers’ different mental processes in reading comprehension. Although bottom-up and top-down text processing were in the foreground of reading research in the 1970s and 1980s, the main focus of the recent research has been on the interactive model of reading (Grabe, 1991; Urquhart & Weir, 1998).

Bottom-up or “data-driven” models suggest that reading occurs as a linear process starting from the smallest units, and proceeding to the whole (Carrell, 1984, p. 333). In this view, readers are thought to perceive first the letters and words, and then the combination of phrases and sentences. Therefore, this model of reading starts with the “lower level processes” of the text, and then continues with “higher level processes”. However, critics of this approach allege that this reading model underestimates both the readers’ ability to think and the effects of background knowledge on the reading process (Anderson, 1999; Aebersold & Field, 1997; Grabe & Stoller, 2002, p. 32; Samuels & Kamil, 1988; Urquhart & Weir, 1998).

While the starting point in bottom-up models is low-processing at the textual level, top-down or “conceptually-driven” models of reading start with higher-level processing (Carrell, 1984, p. 333). In top-down models, reading depends on readers’ hypotheses formulation and prediction. The central view of top-down models is that “reading is directed primarily by reader goals and expectations” (Grabe & Stoller, 2002, p. 32). Thus, readers make predictions using their world knowledge about the topic beforehand, and confirm or disconfirm them by examining the appropriate sections of the text while reading (Anderson, 1999; Carrell, 1984; Grabe & Stoller, 2002; Urquhart & Weir, 1998).

A specific top-down model of reading frequently mentioned in the literature is “Psycholinguistic Guessing Game Model” originated by Goodman (1967 as cited in Carrell & Eisterhold, 1983; Grabe, 1988, 1991). Goodman claims that reading is “a process of hypothesis verification, whereby readers use selected data from the text to confirm their guesses” (1967 as quoted in Urquhart & Weir, 1998, p. 42). So, this model assumes that reading is a selective process in which readers need to make

predictions and formulate hypotheses repeatedly about the content of the text and check them by using both textual clues and their prior knowledge. In this model of reading, it is essential for readers to scan the text, use visual elements presented with it, and activate their background knowledge (Urquhart & Weir, 1998).

As a counter argument against top-down models of reading, Samuels and Kamil (1988) indicate that the over-reliance of top-down processing may cause difficulties for L2 readers since they may not have adequate background knowledge about the content in order to make predictions. In opposition to Goodman's (1967) and Smith's (1971, 1973) view, which claims that good readers are better guessers, the idea of considering poor readers as good predictors as a result of their weak lower-level processes has also been asserted by Stanovich (1980 as cited in Samuels & Kamil, 1988) and Nicholson (1993 as cited in Urquhart & Weir, 1998). In addition, some sources claim that top-down models of reading are used especially by novice L2 readers who do not have the ability to recognize words and decode the text efficiently yet (Urquhart & Weir, 1998).

As a judicious combination of separate top-down and bottom-up models, interactive models of reading have emerged in recent research. The term *interactive* refers to two levels of interaction. The first interaction is found between the reader and the text; and the second occurs between the bottom-up and top-down processing (Anderson, 1999; Grabe, 1986, 1991; Samuels & Kamil, 1988). Both processes are required since "bottom-up processing insures that the reader will be sensitive to novel information; top-down processing helps the reader resolve ambiguities" (Carrell, 1984, p. 333). Thus, the simultaneous use of both lower-level skills like decoding the text by means of the recognition of words and linguistic structures, and

higher-level skills like rebuilding the text as a whole through the activation of background knowledge promote efficient reading (Carrell, 1984; Carrell & Eisterhold, 1983; Cohen, 1990; Grabe & Stoller, 2002; Silberstein, 1994; Urquhart & Weir, 1998).

Schema Theory

Within the interactive approach, *schema theory* has been frequently mentioned and researched. As Carrell (1984) explains, “the role of background knowledge in language comprehension has been formalized as schema theory” (p. 332). In this context, *schema* is defined as the reader’s source of world knowledge which enables him to make predictions and create expectations while interpreting the text (Chamot & O’Malley, 1994; Wade, 1990). The reading process involves the interaction between the text and the reader’s schemata since comprehension requires more than just decoding texts by using linguistic knowledge (Carrell & Eisterhold, 1983). Because the text is not considered comprehensive unless the reader makes use of the additional data source, background knowledge, schema theory emphasizes its activation for efficient reading comprehension (Grabe, 1991; Urquhart & Weir, 1998).

There are two kinds of schemata. The first are “formal schemata” which involve linguistic knowledge, and the second are “content schemata”, the reader’s world knowledge (Carrell, 1987; Carrell & Eisterhold, 1983; Silberstein, 1994). The investigation of the effects of formal and content schemata on reading has indicated that content schemata are more influential and facilitative in the reading process (Carrell, 1987; Carrell & Eisterhold, 1983).

A great variety of research on schema theory has pointed out that readers are able to better comprehend texts by using their background knowledge. The studies conducted by Johnson (1982) and Hudson (1982) have stressed that the use of schemata has a positive effect on readers' comprehension performance (as cited in Carrell & Eisterhold, 1983).

The problems of triggering prior knowledge have also been stated in the literature. 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 readers to use their prior knowledge (Carrell & Eisterhold, 1983; Carrell et al., 1989). In addition, because readers may not have sufficient background knowledge about the content and the rhetoric of the text due to their cultural backgrounds, activating schemata may cause difficulties in the L2 context (Carrell, 1987; Silberstein, 1994).

Looking back at all the different models of reading, it seems clear that "meaning does not reside in the text itself. Meaning is reached when the reader integrates personal background knowledge, purpose for reading, reading strategies, and the text" (Anderson, 1999, p. 39). Thus, both formal and content schemata play an important role in reading competence. In addition, reading strategies are viewed among the fundamental elements of comprehension in all models of reading, yet in different levels. Therefore, reading strategies will be discussed in detail in the next section.

Reading Strategies

It is difficult to give an exact definition of a strategy due to the complex mental processes it involves. According to Cohen (1990), learning strategies are intentional mental processes chosen by learners. In Oxford's (1990) definition, learning strategies are viewed as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (p. 8). Learning strategies can be chosen by learners consciously depending on their changing purposes and needs. This element of intentional choice generates the special characteristic of learning strategies which differentiates them from other cognitive processes (Allen, 2003; Anderson, 1999; Cohen, 1990, 1998).

As a subset of learning strategies, reading strategies are described as "mental operations involved when readers approach a text effectively and make sense of what they read" (Barnett, 1988, p. 150). Strategic readers benefit from reading strategies as problem solving tactics in order to construct meaning from a text (Anderson, 1991; Janzen, 1996). Because each reader may need different text processing, there is not a specific set of reading strategies that all readers benefit from. What makes a strategy useful depends on the text, the circumstances, and the reader's purposes (Anderson, 1999; Cohen, 1990).

Despite the large body of research on reading strategies and the attempts to describe them, there has been no consensus on their definitions in the literature due to several controversies (O'Malley & Chamot, 1990; Paris, Wasik & Turner, 1991; Urquhart & Weir, 1998). Paris, Wasik and Turner (1991) state that one of these controversies occur due to the difficulty of clearly differentiating reading strategies

and other cognitive processes like “thinking, reasoning, perceptual, study, or motivational strategies” (p. 610). The second controversy is related to the breadth of reading strategies as “global” or “specific” (p. 610), 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 (Cohen, 1998). On the other hand, according to the second view, only the unintentional use of strategies can result in the best reading process (Paris et al., 1991).

Related to the conflict between the deliberate and unintentional strategy applications, another problem in defining the notion of reading strategies 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 as separate (Paris et al., 1991; Urquhart & Weir, 1998). Paris, Wasik and Turner (1991) distinguish skills and strategies with these clear definitions:

Skills refer to information-processing techniques that are automatic, whether at the level of recognizing grapheme-phoneme correspondence or summarizing a story. Skills are applied to text unconsciously for many reasons including expertise, repeated practice, compliance with directions, luck and naïve use. In contrast, *strategies* are actions selected deliberately to achieve particular goals. (pp. 610-611)

Considering this distinction, when a skill is used intentionally, it can be taken as a strategy. And similarly, a strategy can become a skill after long practice (Vygotsky, 1978 as cited in Paris et al., 1991). 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” (p. 96). In this respect, skills emphasize only textual features whereas strategies are readers’ own conscious tactics to answer their needs due to the probable problems occurring during the reading process.

Despite the difficulties of defining strategies properly, they are viewed as facilitators of the reading process in all sources. It has been observed that readers who can apply appropriate strategies are not only more successful in comprehension, but also more motivated in reading (Aarnoutse & Schellings, 2003). Moreover, the efficient use of reading strategies promotes learner autonomy and creates independent readers since it enables learners to self-direct their individual reading processes (Allen, 2003; Rubin, 1987).

The Classification of Strategies

There are different taxonomies for the classification of strategies mentioned in various sources (Chamot, 1987; Cohen, 1998). O’Malley and Chamot (1990, 1994) refer to strategies in three categories as cognitive, metacognitive and social/affective depending on the observations of learners’ strategy applications. Anderson (1999) classifies strategies as cognitive, metacognitive and compensation strategies. Embracing these two taxonomies, Oxford (1990) divides learning strategies into two main groups: direct and indirect strategies. Direct strategies involve memory, cognitive and compensation strategies; indirect strategies include

metacognitive, affective and social strategies. And the other common categorizations are the text-level (top-down) and word-level (bottom-up) strategies; global and local processing; and pre-, while- and after-reading strategies (Barnett, 1988; Block, 1986; Cohen, 1990; Kern, 1989; Paris et al., 1991; Urquhart & Weir, 1998).

Cognitive strategies, which include the “manipulation” and the “transformation” of language, are the most frequently mentioned cluster of strategies in reading research (Chamot, 1987, p. 72; Oxford, 1990, p. 43). Some of the key cognitive reading strategies listed by Anderson (1999) are: predicting, finding the main idea, distinguishing facts and opinions, mapping the ideas and words, and summarizing.

The second category of strategies which has been studied by many researchers is metacognitive strategies. Metacognition is defined by Anderson (2006) as “the ability to make your thinking visible”. Readers use metacognitive strategies to monitor their own mental processes (Block, 1992; Carrell et al., 1989; Chamot 1987; Paris et al., 1991; Rubin, 1987). According to Wagoner (1983), checking comprehension is “an executive function, essential for competent reading, which directs the reader’s cognitive process as he/she strives to make sense of the incoming information” (as quoted in Paris et al., 1991, p. 619). Carrell (1989) states that there are two essentials of metacognition: “(1) knowledge of cognition, and (2) regulation of cognition” (p. 122). The former represents readers’ recognition of their own cognitive processes, which makes it possible for them to be aware of their own reading performances. And only if the readers are aware of their own limitations in reading, the latter, the regulation of mental processes, can be accomplished through readers’ self evaluation of their strategic behaviors (Cohen, 1998). However, due to

these two essentials, metacognition improves later than other mental processes (Block, 1992).

Another taxonomy of reading strategies, text-level and word-level strategies, are referred to in various sources. Word-level or bottom-up strategies are related to word processing like understanding the meanings of words and references. These strategies promote the interpretation of the text starting from the word level and working through the sentence level. Text-level or top-down strategies, such as using the title, predicting the content, skimming, scanning and activating the background knowledge, refer to the ones applied when the purpose of reading is to comprehend the text as a whole (Barnett, 1988; Carrell, 1989; Wade, 1990).

The categorization of strategies as pre-, while- and after-reading is also stated frequently. Pre-reading strategies are considered beneficial to activate background knowledge on the topic in order to better comprehend the text and facilitate the process of reading. In addition, they give readers an opportunity to formulate hypotheses to be confirmed later on (Carrell, 1984; Paris et al., 1991). As for while-reading strategies, according to Paris, Wasik and Turner (1991), they help readers to “go beyond text information by adding inferences and elaborations from their background knowledge and the text itself” (p. 614). Lastly, after-reading strategies, like summarizing and evaluating the writer and the text, enable readers to complete and check their own reading processes (Paris et al., 1991).

Efficient reading requires the application of all kinds of aforementioned strategies flexibly according to readers’ changing purposes. However, research indicates that not all readers are able to employ them successfully (Anderson, 1991;

Block, 1992). Thus, the different characteristics of successful and less successful readers' strategic performances will be discussed in detail in the next section.

Successful and Unsuccessful Readers' Strategy Use

Recent research has shown that there is not a specific group of strategies used by good readers and defined as beneficial to better comprehend texts. So, strategies cannot be categorized as good or bad; what makes them useful is related to readers' application (Anderson, 1991; Oxford, 2001). The element which differentiates good 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. As Baker and Brown (1984) explained, 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 (as quoted in Carrell, 1989, p. 122). This feature of strategic reading has proven to have a positive impact on learners' comprehension performances as well (Anderson, 1991; Chamot & O'Malley, 1994; Kern, 1989; Oxford, 2001).

The view that stresses the application of the same strategies in different combinations has been verified by the study conducted by Anderson (1991) in which both reading comprehension tests and think-aloud protocols were used as instruments. The findings of this study have shown that it is not enough to be knowledgeable about which strategies to employ for strategic reading; readers should also be aware of how to apply them. It has also been indicated that although the readers who utilize more strategies tend to have better comprehension performances, there is not a specific set of strategies that contributes to the overall reading

comprehension. In fact, the same strategies can be employed by both good and poor readers, yet in different manners.

Although the use of the same cluster of strategies by both good and poor readers in different modes is acknowledged in recent research, many empirical studies have drawn attention to the different characteristics of successful and less successful readers' strategy use (Block, 1992; Hosenfeld, 1977 as cited in Brantmeier, 2002; Oxford, Chao, Leung & Kim, 2004).

Hosenfeld (1977) compared successful and unsuccessful readers' strategic behaviors depending on their verbal reports. He observed that successful readers focused on the context and read in phrases. However, unsuccessful readers preferred word-by-word processing of the text without skipping unknown words (as cited in Brantmeier, 2002).

Block (1992) also compared the proficient and non-proficient readers' strategies via a standardized test and think-aloud protocols. The results indicated that while successful readers use more global or top-down strategies to comprehend the overall meaning of the text, poor readers tend to deal with their lexical problems in order to decode the text in the local level. Another study conducted by Oxford et al. (2004) reported similar findings. It was observed that high-proficiency level successful readers employed top-down strategies such as predicting, finding the main idea and guessing the meaning of a word from the context, whereas poor readers relied on bottom-up strategies more often.

In addition to the findings of all these studies, it has been observed that since good readers attach more importance to "meaning-centered" reading, they try to use more cognitive and metacognitive strategies, while less successful readers cannot

connect or control the limited number of strategies they employ (Anderson, 1991; Block, 1992; Devine, 1984 as cited in Carrell, 1989, p. 122; O'Malley & Chamot, 1990; Oxford, 2001). Because the word level decoding of the text is of primary importance for poor readers, they cannot revise their reading purposes or check their comprehension, either (Paris et al., 1991).

On the other hand, as a counter argument for the view of successful readers' efficient use of top-down strategies, it is claimed that top-down processing may be the result of the difficulties readers encounter in decoding texts (Wade, 1990). Since less successful readers cannot understand the text on the word level due to their linguistic problems, they may rely on the top-down strategies like guessing word meaning and activating background knowledge, and by this means, grasp the overall meaning. According to this view, because successful readers are able to comprehend the words and phrases in texts rapidly, they do not need to rely on top-down strategies to make predictions (Dijk & Kintsch, 1983 as cited in Grabe, 1988).

Considering all these arguments about the features of successful reading, Grabe and Stoller (2002) summarized the characteristics of successful readers as follows:

Strategic readers understand the goals of an activity, have a range of well-practiced reading strategies at their disposal, apply them in efficient combinations, monitor comprehension appropriately, recognize miscomprehension, and repair comprehension problems effectively. Strategic readers make use of a wide repertoire of strategies in combination rather than in isolated applications. (p. 195)

Regarding the findings of all the investigations focusing on successful readers' strategic behaviors in the literature, it follows that less successful readers can be assisted to read more effectively via strategy instruction emphasizing the interactive nature of reading in which both top-down and bottom-up strategies are utilized.

Reading Strategy Instruction

The investigations of good readers' cognitive processes and strategic behaviors construct the basis for strategy instruction. Both first and second language studies have revealed that strategies are teachable, and when they are taught, students utilize training to a large extent (Chamot & O'Malley, 1994; Janzen & Stoller, 1998). The strategies that successful readers employ can be taught to less successful readers via explicit strategy instruction which aims to raise learners' consciousness of strategic nature of reading (Grant, 1994; McDonough, 1995). In fact, even efficient readers can benefit from strategy instruction because they may also face many problems due to the lack of awareness of their own strategic behaviors, or the difficulties occurring in the adjustment of strategies according to their needs (Rubin, 1987; Simpson, 1984).

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 (Rubin, 1987). 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 (Anderson, 1999; O'Malley & Chamot, 1990; Oxford, 2001; Pearson & Fielding, 1991). The simultaneous use of both metacognitive and cognitive strategies is also

emphasized in many sources (Carrell, 1984; Chamot & O'Malley, 1994; Chamot et al., 1999; Cohen, 1998). The application of both of these strategy types enables readers not only to practice strategies, but also to learn how to reflect on and assess their own strategic performances (Grabe & Stoller, 2002; Rubin, 1987).

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 (Cohen, 1998; Grant, 1994; Janzen & Stoller, 1998; Silberstein, 1994). Thus, strategy training develops autonomous learners with high motivation and self-esteem responsible for their own performances in reading (Allen, 2003).

Recent research has also explicitly indicated that strategy instruction has positive effects on students' L2 reading performances as well as their strategy repertoires (Aarnoutse & Schellings, 2003; Alfassi, 2004; Auerbach & Paxton, 1997; Carrell et al., 1989; Hosenfeld, 1984; Kern, 1989; Salataci & Akyel, 2002). Alfassi (2004) and Kern (1989) have indicated that the students who receive integrated strategy instruction are more successful in reading comprehension measures than the ones who are exposed to the traditional literacy learning. Aarnoutse and Schellings (2003) reported similar findings as a result of an experimental program. Their study has also added that strategy instruction has a positive impact on the motivational aspects of reading.

In a different study conducted by Auerbach and Paxton (1997), whose aim was to raise learners' metacognitive awareness, learners were encouraged to take

charge of investigating their own reading processes. The findings of this study, in which interviews, questionnaires and think-aloud protocols were used, have demonstrated the positive impacts of the consciousness-raising program on learners' awareness of reading strategies and their own reading performances.

Focusing on metacognitive awareness, Salatacı and Akyel (2002) investigated the effects of metacognitive strategy training as well as the strategies used in L1 and L2. The results of this study asserted that strategy training had a positive effect on readers' comprehension as well as their attitudes towards strategy instruction and application. In addition, this study revealed that readers tend to use fewer bottom-up strategies after instruction due to the emphasis on comprehending the overall meaning of texts.

In sum, all this large body of research has indicated the positive effects of reading strategy instruction by adopting several approaches, some of which will be presented in the next section.

Approaches in Reading Strategy Instruction

In recent approaches to strategy instruction, “(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” are emphasized as the fundamental features (Duke & Pearson, 2002; Pressley, 2001; Vacca, 2002; Whitehead, 1994 as cited in Yetgin, 2003, p. 19). Reciprocal Teaching, Transactional Strategy Instruction, Strategy Based Instruction and Cognitive Academic Language Learning Approach are the most frequently mentioned and adopted approaches in the literature of reading strategy instruction.

Reciprocal Teaching (RT) was developed by Palincsar and Brown (1984) for less successful readers in their native languages. All the procedures in RT depend on the interaction between the teacher and learners as well as between learners while reading. First, the teacher provides a model as the expert and then learners working in groups take turns to model the strategies as leaders in different sections of the text with the teacher's guidance. Thus, explanation, modeling and scaffolding are the integrated parts of strategy instruction in RT (Mosenthal, Schwartz & MacIsaac, 1992). While reading, learners apply the strategies of generating questions, summarizing, clarifying, and predicting what will come next within the paragraphs (Allen, 2003; Palincsar & Brown, 1984). The focal point in RT is the active role of the reader in the reading process through the use of peer interaction (Pearson & Fielding, 1991), because it is believed that only if readers practice strategies, they can internalize them better (Chamot et al., 1999).

The second instructional approach is Transactional Strategy Instruction (TSI) which was designed by Michael Pressley (1997 as cited in Allen, 2003). The main emphasis in this method is on "reader transactions with the text". The strategies frequently used in this approach are using background knowledge for prediction, generating questions, looking for clarification, imagining the text in mind, combining prior knowledge with the content of the text, and summarizing (Pressley & Wharton-McDonald, 1997 as quoted in Allen, 2003, p. 326). The basic features of TSI are: (a) strategy training requires long-term instruction, (b) teachers not only explain but also model the strategies for learners about when and how to use them appropriately, (c) strategies are always applied in different reading tasks, and (d) the importance and vitality of strategies are frequently emphasized (Grabe & Stoller, 2001; Janzen,

1996). The main difference between RT and TSI is that while the former can be applied in a short-term training program, the latter should be an integrated part of a long-term curriculum (Allen, 2003).

Another instructional model is Strategy-Based Instruction (SBI), 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 learners encounter comprehension problems. During the application of strategies, teachers adopt 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, pp. 98-101).

The most recent method which has been promoted by Chamot and O’Malley is Cognitive Academic Language Learning Approach (CALLA). This model suggests that the development of cognitive skills is such a complicated process that it requires a large amount of practice (O’Malley & Chamot, 1990). It is emphasized that strategies should be presented explicitly by guiding learners to be aware of when, where and how to apply them (Allen, 2003). The three major components of CALLA indicated by O’Malley and Chamot (1990) are: (a) the selection of materials, (b) promoting academic language skills, and (c) explicit strategy instruction.

CALLA has five stages of instruction, as follows: (a) *preparation*, which involves discussion on strategies in order to raise learners’ awareness of their reading processes, and creates a learner-centered class by preparing them for strategy

instruction; (b) *presentation*, in which the strategies are explicitly presented and modeled by the teacher; (c) *practice*, which enables learners to apply the strategies individually; (d) *evaluation*, in which learners assess their own strategic behaviors and select the beneficial ones; and (e) *expansion*, which gives an opportunity to learners to transfer the strategies to different contexts. Within these five stages, the major responsibility of the teacher shifts to learners so that learner autonomy is promoted (Chamot, Barnhardt, El-Dinary & Robbins, 1999). This significant shift of the roles within the instructional sequence of CALLA is presented in the following figure:

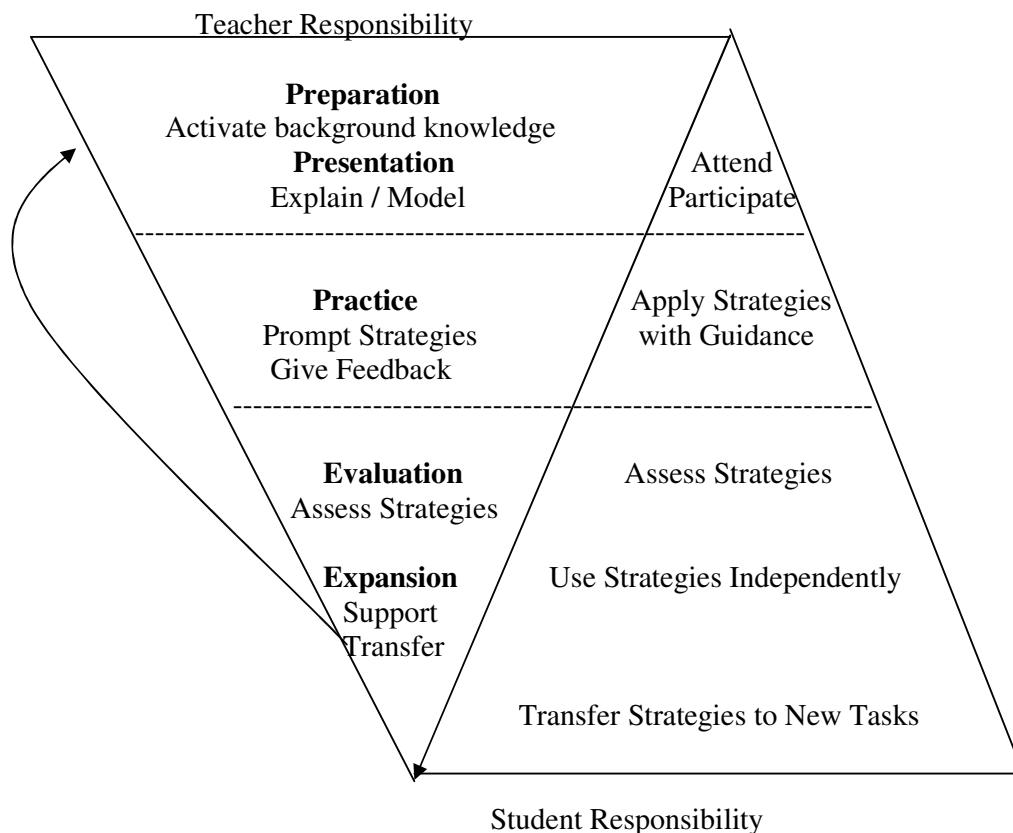


Figure 1. CALLA framework for strategy instruction (adapted from El-Dinary, 1994, by Chamot et al., 1999, p. 46)

In order to provide efficient strategy instruction, selecting the appropriate method according to the context and student profile, by considering the element of

flexibility as well, is crucially important. However, there are some other factors which affect the productivity of strategy instruction.

Factors Affecting Reading Strategy Instruction

Although the elements of strategy instruction can change in different contexts, there are four principles suggested by Janzen and Stoller (1998) for effective training. The first principle is the choice of material, which is not too challenging not to cause frustration since it prevents one of the primary goals of strategy instruction, the promotion of self-efficacy and self-confidence. The level of materials should be achievable, yet difficult enough to encourage learners to use relevant strategies. Although the second principle is related to planning the strategy instruction in detail beforehand, the third principle is the flexibility of this plan according to students' immediate needs. And lastly, the strategies which are taught should be revised regularly to ensure that they are adopted by learners in necessary circumstances. Moreover, the selection of strategies is as important as the choice of material. Since some strategies support the use of one another, they can be presented as a "cluster of strategies" (Cohen, 1998, p. 91). While teaching too many strategies at once can confuse learners, emphasizing only a few may cause boredom (Chamot & O'Malley, 1994; Chamot et al., 1999).

In addition to these principles, it is recommended that strategy instruction should be a part of each lesson in an ongoing process through the whole curriculum rather than taught separately, since strategic reading improves only if readers are exposed to a lot of practice in a long-term training program (Chamot & O'Malley, 1994; Chamot et al., 1999; Grabe & Stoller, 2002).

Considering the probable time constraints in training programs, Schueller (1999) suggested emphasizing only top-down strategies if enough time cannot be dedicated to both top-down and bottom-up strategy instruction. Her study, in which male and female German L2 readers' bottom-up and top-down strategy applications were compared, indicated that although females outperformed males in strategy use, males became successful only after the training in top-down strategies. Depending on this finding, Schueller contended that both male and female students can benefit from strategy instruction in top-down reading strategies provided in a limited time (as cited in Brantmeier, 2002).

Regarding the factors affecting strategy instruction, the teacher's role is another key component. As mentioned by Pearson and Fielding (1991), the role of the teacher has shifted recently towards one of modeling. According to McDonough (1995), teachers 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). In this respect, the main responsibility should be transferred from the teacher to learners during instruction (Chamot et al., 1999). Teachers should also be aware of their students' strategic behaviors and try to assist them to improve their strategy repertoires (Chamot & O'Malley, 1994). According to Grabe (1986), "briefly, the role of the teacher is to facilitate reading, raise consciousness, build confidence, ensure continuity and systematicity, show involvement, and demand performance" within the strategy instruction (p. 44).

To conclude, the major factors affecting the productivity of strategy instruction are: (a) the selection of materials, and planning; (b) teacher's changing roles; and (c) the integration of instruction in the curriculum.

Difficulties of Strategy Instruction

Even if the training program is planned considering all the factors mentioned before, several difficulties may occur during the implementation because there are many features of strategy instruction which have to be considered.

According to Rubin (1997), one of the major problems of strategy instruction is that students may be reluctant to take the responsibility of their own learning within the framework of learner autonomy (as cited in Cohen, 1998). 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 they can apply (Hosenfeld, 1984).

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 (McDonough, 1995). Also, students can employ different strategies in various texts according to their changing purposes (Grabe & Stoller, 2002). Finally, students' existing strategy repertoire may be in conflict with teacher's expectations, which may result in a mismatch in instruction (Cohen, 1998).

In addition to the difficulties occurring as a result of different student profiles, there may be some constraints due to teachers' being inexperienced in strategy application and instruction. The nature of strategy instruction requires teachers not only to be prepared for training, but also to provide scaffolding for students and be flexible during the implementation. It is essential for teachers to check students' use of strategies and alter their techniques or approaches in accordance. Therefore,

teachers also need to be trained beforehand to specialize in strategy instruction (Duke & Pearson, 2002; Pressley, 2002; Williams, 2002; Sinatra, Brown & Reynolds, 2001 as cited in Yetgin, 2003). Also, strategy instruction should be provided in a long-term training program because it requires both a lot of time and effort (Grabe & Stoller, 2002).

In sum, the difficulties of strategy instruction arise from: (a) different profiles and needs of students, (b) inexperienced teachers in strategy training, and (c) time constraints. Despite these difficulties, research shows that students can learn how to employ reading strategies and persist in using them, as a result of a detailed planned and prepared program.

Conclusion

The nature of reading, reading strategies, learners' strategic behaviors and the impacts of strategy instruction on their comprehension performances have been the focal points of reading research for the last two decades. As a result of these investigations, most studies have displayed the strategies employed by successful and poor readers, and demonstrated the positive effects of applying reading strategies and strategy instruction despite the difficulties occurring during the implementation, and the time which has to be dedicated to it. However, there have been fewer studies focusing on students' awareness of reading strategies in the literature.

The design of this study which is dedicated to the investigation of students' awareness of reading strategies as well as the possible effects of the consciousness-raising program about top-down reading strategies on students' reading performances in an L2 context will be presented in the next chapter.

CHAPTER III: METHODOLOGY

Introduction

The aim of this study was to gain insights about (a) the university students' existing reading strategy repertoires, (b) the impact of instruction in top-down reading strategies on their strategic performance, (c) the strategies that students were able to apply in their reading processes, and (d) the relationship between the students' reported frequency of strategy use and the employment of strategies in their reading practice.

In order to explore the answers to the research questions this study addressed, both qualitative and quantitative data were gathered through the application of reading strategy questionnaires before and after the treatment, think-aloud protocols and post-treatment interviews. This chapter is dedicated to the methodology of the study, including participants, instruments, data collection procedures and methods of analysis.

Participants

The participants in this study were 20 volunteer students in an intermediate level preparatory class in the School of Foreign Languages at Erciyes University and their reading teacher who also volunteered to participate in this study.

The students in the intact group answered a questionnaire before and after the treatment focusing on top-down reading strategies. In addition, 5 volunteer students from the same group participated in the think-aloud protocols and interviews.

The classroom teacher was asked to rank the top-down reading strategies that she thought her class used the least in order to determine the ones which had a priority for the students' needs. After the introductory sessions, she implemented the lesson plans during classroom hours. She also completed a checklist to evaluate the lessons after each strategy instruction session.

Instruments

The instruments used in this study included the Reading Strategy Questionnaire (Oxford et al., 2004; Uzunçakmak, 2005), reading strategy instruction in top-down reading strategies, think-aloud protocols, and post-treatment interviews. These instruments were employed in a 4-week research design.

Reading Strategy Questionnaire

The Reading Strategy Questionnaire (Oxford et al., 2004; Uzunçakmak, 2005) was administered to 20 students in the intact group twice as a pre- and a post-questionnaire before and after the strategy instruction (see Appendix A). The questionnaire consisted of 45 items altogether. 35 entries in the questionnaire were originally employed by Ikeda and Takeuchi (2000 as cited in Oxford et al., 2004), and revised by Oxford et al. (2004). In addition, 7 items, items 4, 5, 30, 31, 36, 42, 45, were taken from the addendum prepared by Uzunçakmak (2005); and I added 3 more items, items 6, 39, 41. In this way, the number of items related to the top-down reading strategies was increased due to their being the focal point in this research design. Of all the items in the Reading Strategy Questionnaire, while 15 items concerned bottom-up strategies, 30 items focused on top-down reading strategies. Both strategy types were used in the pre- and post-questionnaires in order to identify students' whole strategy repertoires before the treatment, and to determine the effects

of strategy instruction on the use of both top-down and bottom-up strategies after the treatment.

In addition to the categorization of top-down and bottom-up strategies, all the items in the questionnaire were also categorized under the titles of “before”, “while” and “after reading strategies” as used by Oxford et al. (2004). Items 1 to 6 were on “before-reading strategies”; items 7 to 43 focused on “while-reading strategies”; and items 44 and 45 investigated “after-reading strategies”.

A 5 point Likert-scale ranging from ‘1’ (never) to ‘5’ (almost always) was used instead of the 6 point one employed by Oxford et al. (2004) and Uzunçakmak (2005) in order to make the distinction of the Likert-scale points more obvious for the participants since in the 6 point Likert-scale, ranging from ‘0’ (almost never) to ‘5’ (almost always), each point was not identified specifically.

Both pre- and post-questionnaires were administered in the students’ native language, Turkish, in order to prevent the problems which might have occurred due to the participants’ lack of linguistic proficiency. The items from Oxford et al. (2004) and Uzunçakmak (2005) were employed with the translation by Uzunçakmak (see Appendix B).

Reading Strategy Instruction

After the preliminary analysis of the pre-questionnaire, students’ strategic performances were observed and the top-down reading strategies that the students reported as rarely or moderately used were selected. Table 1 illustrates the sequence of reading strategies provided for students during a three-week instruction period.

Table 1

The Top-down Strategies Emphasized in the Instruction

Week 1	Skimming Scanning Finding the main idea Distinguishing the main idea and the supporting details
Week 2	Using background knowledge for prediction Skimming Finding the key words (Semantic mapping) Summarizing
Week 3	Skimming Distinguishing facts and opinions Drawing inferences Evaluating the text and the writer

Following Oxford (2001), strategies were presented as “a strategy chain” (p. 363), rather than as isolated items since this makes the application of strategies more meaningful for students.

During the implementation of the strategy instruction, the instructional sequence in Cognitive Academic Language Learning Approach (CALLA) was followed since it has been observed that within all the approaches for strategy instruction, the sequence employed in this method is more appropriate for Turkish students’ learning styles. This sequence involves 5 stages as illustrated in the figure below:

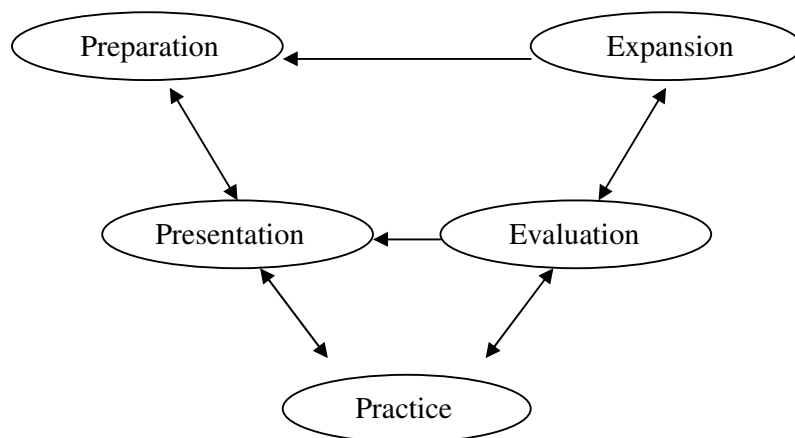


Figure 2. CALLA instructional sequence: Five recursive phases (Chamot et al., 1999, p. 45).

Following the phases of this sequence, in the preparation phase, classroom discussions were used to give students an opportunity to identify the reading strategies that they were already applying. Then, during presentation, the names and benefits of each strategy were explained explicitly. At this stage, the teacher provided some models for the application of the strategies through thinking-aloud. In the practice section, students were asked to apply the strategies personally while reading the text. After the students evaluated their own strategic performances, they were encouraged to discuss where to use the presented strategies in their future reading. By adopting this sequence, the responsibility which the teacher undertook at the beginning of each session shifted to the students gradually (Chamot et al., 1999).

The strategy instructional tasks (for a sample, see Appendix C) were prepared by using the reading texts in the current text book, and the lesson plans were implemented by the reading teacher within the classroom hours so that the instruction was integrated into the syllabus. Because the teacher was asked to be flexible during the implementation of the lesson plans, she used the lesson plans in

the way they were designed, with her own contributions according to the students' reactions in the lessons.

After each reading task, the teacher completed the checklist which was adapted by Chamot et al. (1999, p. 137) from Barnhardt (1996). The aim of these checklists was to consider the teacher's opinions in the preparation of the subsequent lesson plans.

Classroom Observation

While the strategy instruction was provided by the classroom teacher, I observed the classes and took notes about the students' reactions. In addition, the classes were audio recorded to have back up for the details that I might have missed in my observations. The main purpose of the classroom observation was to achieve treatment validity, that is, to ensure that the lesson plans were implemented as planned.

Depending on these observations, the subsequent lesson plans were modified according to the perceived needs of the students throughout the strategy instruction period. For instance, observing the implementation of the first task, pair work activities were also added into the second and the third lesson plans to promote students' self-confidence and encourage them to participate in the classroom discussions more.

Think-Aloud Protocols

Of all the methods to investigate reading strategies, the most frequently adopted ones are verbal reports. As a form of verbal report, think-aloud protocols are considered as a feasible way to identify the processes which occur during reading, although they are sometimes criticized as "intrusive", interrupting the reading

process (Oxford, 1996, p. 97). Moreover, critics of verbal reports assert that since cognitive processing occurs unconsciously, it is not possible to identify them accurately (Cohen, 1998). Nevertheless, think-aloud protocols have been used “to reveal in detail what information is attended to while performing a task – information that is otherwise lost to the investigator” (Ericsson, 1988; Ericsson & Simon, 1993 as cited in Cohen, 1998, p. 38).

Considering all this discussion in the literature, after the implementation of the strategy instructional tasks, think-aloud protocols were conducted with 5 volunteer students from the intact group in order to investigate students’ underlying cognitive processes while reading in L2. By this means, as suggested in the literature, not only the quantity of strategies, but also their application in reading process was observed (Tseng, Dörnyei & Schmitt, 2006).

Before the think-aloud protocols, it was thought that the use of training sessions would be necessary because the students did not know what they were supposed to do in the think-aloud process. Therefore, each participant was trained individually as suggested in the literature (Cohen, 1987; Hosenfeld, 1984). During the training sessions, I thought aloud to find the number of the rooms in my flat and asked the participants to tie their shoelaces as they were thinking aloud. After that, I used an example paragraph to show the participants how they were supposed to think aloud while they were reading. Then, they were also asked to practice the think-aloud protocol on another example paragraph. Each training session took about 20 minutes.

After the training sessions, the participants were asked to think-aloud while reading an intermediate level text, “Tourists in a Fragile Land” from Barton and Sardinias (1998, p. 96). In the reading text consisting of 39 sentences, a sign was

embedded every two sentences in the text by the researcher in order to remind the participants to think-aloud. The use of these signs also helped the participants in the think-aloud process since they could read the text in short segments (Block, 1986).

The participants were given an opportunity to choose to think-aloud in their native language, Turkish, or in English, as suggested by Anderson (1991) and Hosenfeld (1977 as cited in Swaffar, 1988), since students could avoid verbalizing their mental processes due to their lack of proficiency in L2 (Davis & Bistodeau, 1993). Because all the participants preferred to use their native language, the think-aloud protocols were conducted in Turkish. The think-aloud processes were audio-recorded with the consent of the participants, and meanwhile I took notes about their nonverbal strategy uses, as suggested by Wade (1990).

After the think-aloud protocols, a few follow-up questions were asked orally to investigate the strategies which could not be identified in the verbalization process as well. Considering the think-aloud process and the comprehension questions, the whole process took approximately 35 minutes for each participant. The following table shows the processes involved in each think-aloud protocol.

Table 2

The Sequence of the Processes in Think-Aloud Protocols

Researcher's training session	→	Participant's practice	→	Refreshment break	→	Reading with think-aloud	→	Comprehension questions
10 min.		10 min.		5 min.		30 min.		5 min.

Interviews

The volunteer students who participated in the think-aloud protocols were also asked to reflect on the strategy instruction provided for them for 3 weeks and evaluate the lessons. The aim of the semi-structured interviews, whose questions were adapted from those of Sadık (2005), was to search for students' perceptions of explicit strategy instruction. Similar to the think-aloud protocols, the interviews were also conducted in the participants' native language, Turkish as they chose, and audio-recorded.

Data Collection Procedures

The data collection procedure for this study started in November. First, I asked permission to implement explicit strategy instruction in an intermediate level reading class in the School of Foreign Languages at Erciyes University. Immediately after my discussions with the director and the group coordinator, I started my data collection process with the pilot studies and training sessions with the volunteer teacher.

I piloted the Reading Strategy Questionnaire in an intermediate level class on the second of December. Then, I piloted the additional items separately on the seventh of February. It took approximately 15 minutes to complete the Reading Strategy Questionnaire and 5 minutes to answer the additional items for the participants. Since there was no problem with the wording of both questionnaires, they were integrated and distributed as a whole in the real study.

In the second phase of the piloting, think-aloud protocols were conducted with three different participants in order to find the most appropriate reading text in terms of students' interests and the level of difficulty. One intermediate level and two

upper-intermediate level texts were used in the pilot studies. Since the pilot studies, in which upper-intermediate texts had been used, indicated that the difficulty of the reading text created an obstacle for both the use of reading strategies and verbalizing the mental processes, the intermediate level text was used in the real think-aloud protocols.

While the pilot studies were in progress, consciousness-raising sessions were held with the volunteer teacher so that she was informed about the instructional sequence of CALLA, and how to promote students' strategic performances through explicit strategy instruction.

After the completion of the pilot studies and teacher's consciousness-raising sessions, the intact group answered the pre-questionnaire on the tenth of February. Considering the rough analysis of the questionnaire, it was observed that the means of top-down strategies were higher than the bottom-up reading strategies. Since this situation created a conflict with the literature, the classroom teacher and the group coordinator were asked about students' needs in terms of explicit strategy instruction. They believed that the students might have been familiar with the names of these strategies because of the current text book although they had not received explicit strategy instruction. Therefore, we cooperatively agreed to focus on the top-down reading strategies during the treatment. The strategy instruction started on the fourteenth of February and continued for three weeks. After each instructional session, the classroom teacher completed the checklist to be considered in the preparation of the subsequent lesson plans. However, it was decided that the use of checklists was not needed for the modification of the lesson plans since the collaborative work with the teacher already served the same purpose.

Having completed the strategy instruction, the participants were given the post-questionnaire on the second of March. Immediately after the post-questionnaire, think-aloud protocols and interviews were conducted with the volunteer students from the same group. Regarding all the instruments mentioned before, the data collection procedures in this study are illustrated in the following diagram:

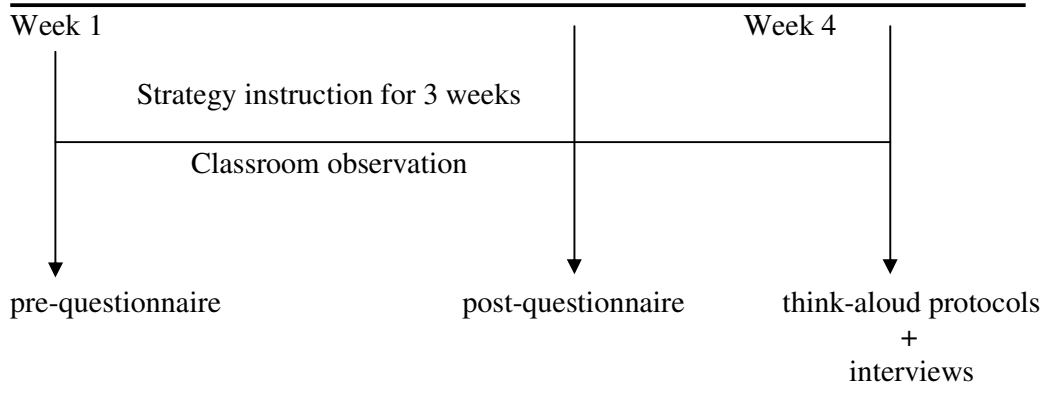


Figure 3. Data collection procedures.

I started analyzing the qualitative data on the fifteenth of March by transcribing the think-aloud sessions. I also entered the results of the quantitative data using Statistics Package for Social Sciences (SPSS) in early March.

Methods of Analysis

The quantitative data collected in this study were analyzed by using Statistics Package for Social Sciences (SPSS 11.5). Paired-samples *t*-tests were run in order to compare the pre- and the post-questionnaire results. The mean scores of bottom-up and top-down strategies were computed separately to investigate the effects of strategy instruction on their rates.

In the analysis of the qualitative data gathered through classroom observation, I combined the notes I had kept during the observation with the audio-recordings of the classes, and I used their results to modify the lesson plans. As for the think-aloud

protocols conducted after the strategy instruction, they were transcribed, translated into English, and coded considering the notes about the nonverbal strategy applications as well (for a sample sequence, see Appendices D and E). The coding scheme was adapted from Davis and Bistodeau (1993) and Tuyan (1998) (see Appendix F). In the analysis of the think-aloud protocols, not only the frequently used strategies, but also the top-down strategies emphasized in the strategy instruction were compiled. At this stage, students' answers to the follow-up questions were also considered (see Appendix G). As for the analyses of the post-treatment interviews, the questions were categorized and analyzed accordingly. The relevant sequences were transcribed and translated into English (for a sample transcription, see Appendices H and I).

Lastly, the results of the think-aloud protocols and the questionnaires were related to each other to observe the relationship between the frequency of students' strategy use and their strategy applications in their reading practice. This comparison enriched the study in terms of data triangulation.

Conclusion

This chapter provided information about the instruments, participants, and the data collection procedures as well as the research questions which this study answered. In the next chapter, the details of the methods of data analysis mentioned above will be discussed.

CHAPTER IV: DATA ANALYSIS

Overview of the Study

This quasi-experimental study was designed to investigate (a) the university students' existing reading strategy repertoires, (b) the impact of instruction in top-down reading strategies on their strategic performance, (c) the strategies that students are able to apply in their reading processes, and (d) the relationship between students' reported frequency of strategy use and the employment of strategies in their reading practice.

As described in Chapter 3, this study involved the use of pre- and post-questionnaires, think-aloud protocols and post-treatment interviews. The participants were 20 intermediate level volunteer students in the intact group and their classroom teacher. The 45-item questionnaire, which was adapted from Oxford et al. (2004) and Uzunçakmak (2005), involved both top-down and bottom-up reading strategies in three categories, before-, while-, and after-reading strategies. The reliability of the questionnaire was found to be .89 using Cronbach's alpha coefficient of internal consistency. All the participants in the intact group responded to the questionnaire before and after the treatment. In addition, think-aloud protocols and post-treatment interviews were conducted with 5 volunteer students from the same group.

The research design of this study consisted of three cycles. In the first cycle, the participants responded to the Reading Strategy Questionnaire as a pre-questionnaire. The aim of the pre-questionnaire was to collect data about the

students' existing strategic performances and to determine the top-down reading strategies to highlight during the training.

In the second cycle of the study, the participants received explicit strategy training in the rarely and moderately used top-down reading strategies which were determined according to the findings of the pre-questionnaire. The instruction was provided by the classroom teacher, and meanwhile the classes were observed and audio recorded in order to modify the subsequent lesson plans. After the treatment, the participants responded to the same questionnaire again. Thus, the effects of the strategy training in top-down reading strategies were investigated considering the frequency of their strategy applications and the second cycle of the study was completed.

In the third cycle, qualitative data were gathered through the application of interviews and think-aloud protocols. The aim of the interviews was to investigate the students' perceptions of explicit reading strategy instruction and support the findings gathered via questionnaires. Think-aloud protocols were conducted to search for the evidence of students' cognitive processes while practicing the reading strategies on a text individually.

This chapter reports the results of the data gathered in this research design. The findings will be discussed under three main titles. In the first section, the analyses of the questionnaires will be presented, elaborating the comparison of the pre- and post-treatment questionnaires. The second section will focus on the analyses of the think-aloud protocols and follow-up questions, and these findings will be associated with the results of the questionnaires. And lastly, the results of the post-

treatment interview will be presented on the sample excerpts from the students' responses.

Analyses of the Questionnaires

For the analyses of the questionnaires, all the items in the Reading Strategy Questionnaire were categorized twice, once as top-down and bottom-up strategies, and again as before-, while- and after-reading strategies (see Appendix J). The quantitative data gathered through the pre- and post-treatment questionnaires were analyzed using SPSS (11.5). Means, standard deviations and percentages were calculated in the statistical analysis.

After the individual analyses of the two questionnaires, paired-samples *t*-tests were run in order to correlate the results of the pre- and post-questionnaires. This correlation indicated the impact of training in top-down reading strategies on students' bottom-up and top-down strategy uses separately. Moreover, each individual item in both questionnaires was compared to investigate the effects of the training on the employment of each strategy.

Results of the Pre-Questionnaire

The Reading Strategy Questionnaire was administered to 20 students before the explicit strategy training started in order to find their existing strategy repertoires, and by this means the first research question in this study was addressed. In addition, the results of the pre-questionnaire were used to determine the strategies to be emphasized throughout the training sessions.

For the analysis of the pre-questionnaire, the mean scores of each item were calculated and the percentages of the two strategy types were computed separately depending on their sums. The average bottom-up strategy use was found to be 53%

while the average top-down reading strategy application was 62%. Because the percentage of top-down strategies was computed as higher than bottom-up strategies, the classroom teacher and the group coordinator were asked about the students' real needs at this stage (see Chapter 3, p. 42).

After the overall analysis, the top-down reading strategies were rank ordered according to their mean scores and categorized under three titles as rare (M = 1-2.33), average (M = 2.34-3.66), and frequent (M = 3.67-5) strategies depending on the students' self-reports. For the items which have the same means, their standard deviations were also taken into consideration in the ranking. The rank order used in the determination of strategy categories and the focal strategies to be used in the training is presented in Table 3 below:

Table 3

The Rank Order of the Top-Down Strategies in the Pre-Questionnaire (From Least Used to Most Frequent)

C	RA	IN	M	Top-Down Reading Strategies
R	1	38	1.95	Writing key words (+)
R	2	39	2.00	Distinguishing facts and opinions (+)
R	3	24	2.20	Marking important parts in the text
A	4	23	2.45	Underlining important parts
A	5	45	2.50	Evaluating the text and the writer (+)
A	6	34	2.50	Skipping sentences that are not understood
A	7	41	2.60	Distinguishing the main idea and the supporting details (+)
A	8	6	2.60	Using background knowledge for prediction (+)
A	9	31	2.70	Self Questioning
A	10	28	2.75	Trying to comprehend the text without translation
A	11	8	2.80	Focusing on the beginning and the end of each paragraph
A	12	44	2.85	Summarizing (+)
A	13	3	2.95	Skimming (+)
A	14	4	2.95	Scanning (+)
A	15	40	3.05	Finding the main idea (+)
A	16	17	3.10	Skipping unknown words
A	17	2	3.20	Considering the text type

Table 3 continued on page 49

A	18	42	3.30	Drawing inferences (+)
A	19	35	3.30	Predicting the subsequent information in the text
A	20	18	3.35	Relating background knowledge to the textual information
A	21	36	3.55	Confirming and disconfirming predictions
A	22	14	3.65	Continuing reading even if difficulties occur
F	23	29	3.70	Referring back to the previous sentences
F	24	21	3.70	Guessing word meanings using background knowledge
F	25	27	4.05	Visualizing the text
F	26	1	4.05	Using the title to predict the content
F	27	43	4.11	Focusing on comprehension questions before reading text
F	28	30	4.20	Integrating the information in the text
F	29	20	4.20	Guessing the meaning of words using contextual clues
F	30	5	4.20	Paying attention to visual elements

Note. C = Category, RA = Rank, IN = Item number, M = Mean, R = Rare, A = Average, F = Frequent, (+) = Strategies taught in the instruction

According to the means of the strategies presented in the table above, it was observed that the first 3 strategies in the rank order were under the category of rare strategies; 19 strategies (from 4 to 22) were found to be the average ones; and the last 8 strategies (from 23 to 30) were determined as frequent.

Considering this rank order and categorization, the top-down reading strategies to focus on throughout the strategy training (indicated by (+) in Table 3) were chosen from the categories of rare and average strategies.

Results of the Post-Questionnaire

After the implementation of the treatment, the Reading Strategy Questionnaire was administered again to investigate the impacts of the strategy instruction on the students' strategic performances according to their self reports.

In the analysis of the post-questionnaire, the percentages of bottom-up and top-down strategies were calculated depending on their sums separately as done in the pre-questionnaire analysis. The average use of top-down strategies was found to be 67%; and the percentage for bottom-up strategies was 50%. This indicates that while the average top-down strategy use increased by 5% probably because of the

training, the average for bottom-up strategies decreased by 3% following the strategy instruction in top-down reading strategies.

Comparison of Pre- and Post-Questionnaires

After the individual analyses of the pre- and post-questionnaires, their results were compared according to strategy types and individual items via paired-samples *t*-tests. In this way, the impact of instruction in top-down reading strategies was examined and the answers to the second research question in this study were investigated.

The overall comparison of the pre- and post-questionnaires in terms of bottom-up and top-down categories are illustrated in the following table:

Table 4

Overall Comparison of the Pre- and Post-Treatment Questionnaires

Strategy Type	N	M	sd	t	Sig. (2-tailed)
Top-down Strategies	20	-0.22	0.369	-2.66	0.016*
Bottom-up Strategies	20	0.14	0.392	1.599	0.126

Note. N = Number of participants, M = mean, sd = standard deviation, t = t value, Sig. = significance

As can be seen in the table above, a significant increase ($p < 0.05$) was observed between the results of the pre- and post-questionnaires in the frequency of top-down strategy use after the strategy instruction. On the other hand, a slight decrease was found in the means of bottom-up strategies. This decrease might be attributed to the focus on top-down reading strategies in the treatment.

After the overall comparison of the pre- and post-questionnaires, as can be seen in Table 5, paired samples *t*-tests were run in the individual item level as well in order to investigate the impacts of strategy instruction for each strategy:

Table 5

The Comparison of the Pre- and Post-Questionnaire Items

IN	T	Pre-Questionnaire		Post-Questionnaire		t	p
		M	sd	M	sd		
1	T	4.05	0.605	4.20	0.696	-1.143	0.267
2	T	3.20	0.894	3.35	0.813	-0.645	0.527
3	T	2.95	1.395	3.10	0.852	-0.448	0.659
4	T	2.95	1.395	3.90	0.968	-3.442	0.003*
5	T	4.20	0.951	4.20	0.768	-0.000	1.000
6	T	2.60	1.046	3.70	0.923	-4.222	0.000*
7	Bt	2.40	0.940	2.75	0.786	-1.584	0.130
8	T	2.80	0.768	3.35	0.988	-2.463	0.024*
9	Bt	3.50	0.889	3.30	1.081	0.847	0.408
10	Bt	2.35	1.387	2.10	1.021	0.721	0.480
11	Bt	2.65	1.387	2.40	1.095	0.665	0.514
12	Bt	3.85	1.226	2.70	1.081	4.721	0.000*
13	Bt	2.75	0.910	3.15	0.875	-2.373	0.028*
14	T	3.65	0.988	3.20	0.894	1.756	0.095
15	Bt	3.85	0.875	3.05	1.146	2.629	0.017*
16	Bt	1.60	0.821	1.95	0.999	-1.677	0.110
17	T	3.10	1.071	3.20	1.196	-0.438	0.666
18	T	3.35	0.933	3.70	0.865	-1.584	0.130
19	Bt	2.05	1.146	2.30	1.129	-1.128	0.234
20	T	4.20	0.696	3.80	0.768	2.629	0.017*
21	T	3.70	0.801	3.70	0.657	0.000	1.000
22	Bt	3.10	1.252	2.65	1.089	2.015	0.058
23	T	2.45	1.191	3.25	1.020	-2,707	0.014*
24	T	2.20	0.951	2.50	1.000	-1.674	0.110
25	Bt	3.60	0.754	3.35	0.745	1.045	0.309
26	Bt	1.45	0.759	1.50	0.688	-0.271	0.789
27	T	4.05	0.689	3.85	0.813	1.165	0.258
28	T	2.75	1.410	2.70	1.342	0.252	0.804
29	T	3.70	0.865	3.25	0.786	1.831	0.083
30	T	4.20	0.768	3.55	0.883	2.668	0.015*
31	T	2.70	1.218	2.95	0.510	-0.960	0.349
32	Bt	2.25	1.209	2.20	1.056	0.252	0.804
33	Bt	1.33	0.470	1.25	0.444	0.438	0.666
34	T	2.50	1.433	2.40	1.314	0.400	0.694

Table 5 continued on page 52

35	T	3.30	0.733	3.35	0.875	-0.252	0.804
36	T	3.55	1.146	3.30	0.923	1.000	0.330
37	Bt	3.40	1.188	3.35	1.137	0.237	0.815
38	T	1.95	0.999	3.15	1.182	-4.188	0.000*
39	T	2.00	1.257	3.15	1.182	-3.217	0.005*
40	T	3.05	1.276	3.20	1.240	-0.438	0.666
41	T	2.60	0.940	3.40	0.883	-2.990	0.008*
42	T	3.30	0.865	3.15	0.988	0.547	0.591
43	T	4.11	1.150	4.05	0.970	0.175	0.863
44	T	2.85	1.461	3.15	1.268	-1.301	0.209
45	T	2.50	1.000	3.25	0.851	-2.445	0.024*

Note. IN = item number, M = mean, sd = standard deviation, t = t value, p = significance value

As illustrated in the table above, considering the top-down strategies, there is a significant increase in items 4, 6, 8, 23, 38, 39, 41 and 45. All these items involve the strategies highlighted during the strategy training. However, in item 20, guessing the meaning of a word from the context, and in item 30, integrating the information in the text, significant decreases have been observed. Moreover, in item 42, which involves the strategy of drawing inferences, a slight decrease has been found although it was one of the strategies emphasized in the training. As for the bottom-up strategies, there is a significant increase in item 13, focusing on sentence structures, while a significant decrease has been observed in item 12, reading the whole text from the beginning to the end, and in item 15, adjusting the rate of reading, probably as a result of the treatment.

In addition to the overall and individual item level analyses of the questionnaires, the categories of the focal strategies were compared according to the results of the pre- and the post-questionnaires in order to find the differences in each category after the training. The following table shows the categories of each focal strategy before and after the treatment:

Table 6

The Categories of the Strategies Before and After the Treatment

IN	Strategy	Pre/Post	R	A	F
3	Skimming	pre post		√ √	
4	Scanning	pre post		√	√
40	Finding the main idea	pre post		√ √	
41	Distinguishing the main idea and supporting details	pre post	√	√	
6	Using background knowledge to predict the content	pre post		√	√
38	Writing key words	pre post	√	√	
44	Summarizing	pre post		√ √	
39	Distinguishing facts and opinions	pre post	√	√	
42	Drawing inferences	pre post		√ √	
45	Evaluating the text and the writer's perspective	pre post		√ √	

Note. IN = Item number, Pre/Post = Pre- / Post-Questionnaire, R = Rare, A = Average, F = Frequent

Comparing the emphasized strategies in pre- and post-questionnaires, it can be seen that the increase in three strategies changed their categories. These strategies are scanning (from average to frequent), distinguishing the main idea and supporting details (from rare to average), and distinguishing facts and opinions (from rare to average). However, no difference was found in the category of the other six

strategies although significant increase was observed in their mean scores. Moreover, in the item of drawing inferences, depending on its mean score, a slight decrease was observed after the training, which did not cause a decrease in its category. The reason for this decrease might have been related to the strategy training provided for students, which aimed at raising their consciousness of the true nature and application of the top-down reading strategies.

Analyses of the Think-Aloud Protocols and Follow-up Questions

After the strategy training, 5 volunteer students from the intact group verbalized their mental processes while reading in the think-aloud protocols, and they responded to the follow-up questions. The researcher attempted to answer the third research question by making inferences about the students' cognitive processes while reading, and thus exploring the qualitative aspects of students' strategy application.

In the data analysis procedures, the think-aloud protocols were transcribed, translated into English, and coded by using the coding scheme adapted from Davis and Bistodeau (1993) and Tuyan (1998) (see Appendix F). In the determination of the coding scheme for the think-aloud protocols, two criteria were used: (a) the strategies whose frequencies were investigated in the questionnaire, and (b) the strategies emphasized during strategy instruction. The consistency between the questionnaire items and think-aloud codes was maintained in order to overcome the probable problems in the comparison of these two instruments. As for the transcription conventions, the participants' verbal responses were presented in parentheses, and the sentences that they read aloud were italicized in quotation

marks. In addition, anonymous names were given to each participant to conceal their real identities (for a sample sequence, see Appendices D and E).

After the transcription and coding processes were completed, one randomly-selected think-aloud transcription was recoded by a colleague at Erciyes University in order to ensure inter-rater reliability. The percentage of inter-rater reliability was calculated as 84%. In addition, as in the calculation of inter-rater reliability, a think-aloud transcription was recoded by the researcher ten days after the first analysis in order to achieve intra-rater reliability, which was computed as 90%.

Following the coding process, the results of the think-aloud protocols were analyzed both qualitatively and quantitatively. In the quantitative analysis, the percentages for the two strategy types, top-down and bottom-up, were found for each participant. In the qualitative analysis, a process based categorization was adopted and the participants' verbal reports on the strategies they used, including their nonverbal strategic performances observed during the think-aloud process, were studied as before-, while-, and after-reading strategies. At this stage, the responses given to the follow-up questions were associated with the participants' think-aloud results in order to investigate the relation between the application of reading strategies and general comprehension of the gist of the text. These follow-up questions were also used to search for the strategies that could not be identified clearly in the think-aloud protocols.

Strategies Identified in the Think-Aloud Protocols and Follow-up Questions

In the qualitative analysis of the think-aloud protocols, the strategies employed by the participants were identified as demonstrated with the sample excerpts in Table 7. In the following table, parentheses were used for the presentation

of the students' verbal responses, and the italicized sections in quotation marks represent the sentences from the text, "Tourists in a Fragile Land" (Barton & Sardinas, 1998), the participants read aloud in the think-aloud process.

Table 7

Sample Excerpts from the Think-Aloud Protocols

Strategy	Participants' Verbal Responses
1. Predicting the Content from the Title (T)	<i>"tourists in a fragile land"</i> ... ["fragile land" is the name of a place I think... this text may be about the tourists there]
2. Relating the Picture to the Content (T)	[When I look at the picture I think the text can be about mountains, life, snow or something like that]
3. Skimming (T)	[Firstly I will have a look at the text] (skimming the whole text) [It says <i>"tourists"</i> , I see the word <i>"Green Peace"</i>]
4. Scanning (T)	<i>"The ice of Antarctica holds 70 percent of the world's fresh water"</i> ... [fresh water sources ... ice inside Antarctica] <i>"hold"</i> ... [it says <i>"70 percent"</i>]... [70 percent of the world's fresh water sources]
5. Using Background Knowledge (T)	<i>"effect"</i> [from the hole in the ozone] <i>"that was discovered above Antarctica in 1984"</i> [I knew that Antarctica is one of the places affected from the ozone hole]
6. Predicting What Will Come Next (T)	<i>"meteorology"</i> ... <i>"global warming"</i> ... <i>"changing weather"</i> [and this mass of ice... I guess they will do research or find a solution by finding evidence from this]

7. Confirming/ Disconfirming Predictions (T)	[How will it happen...There is no government here... but these places can be compared...However...I think my guess was right]
8. Restatement (Bt)	<i>“... complain that tourists leave trash on beaches and disturb the animals and plants”</i> ... [these environmentalist members complain about the tourists who destroy animals, plants...coasts]
9. Integrating Information in the Text (T)	[For three sentences, the countries with governments and Antarctica without a government are compared]
10. Questioning Information in the Text (T)	<i>“They keep the Earth from getting too hot as they reflect sunlight back into space”</i> ... [What is happening?] ... <i>“back into space”</i> ... [It goes back to the space... What?... It is the sunlight... The sunlight goes back to the space]
11. Rereading (Bt)	<i>“There are even psychologists who study how people behave when they live and work together in such remote location.”</i> [There] <i>“psychologists who study how people behave”</i> <i>“when they live and work together”</i> [How the people living there behave] <i>“remote location”</i>
12. Finding the Main Idea (T)	<i>“The only way to protect this fragile and important part of the planet is to stop tourists”</i> ... [The main idea is here... They put it at the end of the text]

13. Focusing on Individual Words (Bt)	“Meteorologists are now looking at the effects of the ozone hole” [ozone hole] “effects”... “looking at the effects” in 1984 “that was discovered above”... [What does “discover” mean?]
14. Guessing the Meaning of an Unknown Word (T)	“if this ice melts oceans level could rise”... “if this ice melts”... “melts... melts”... [I don’t know but “melts” must be something like thaw... because it tells about rising oceans.]
15. Skipping Sentences and Unknown Words (T)	“I can appreciate their desire”... [I don’t know what “desire” means] ... “to experience”... [experience... this beautiful part of land and experience...] “appreciate... desire”... [to do something with their experience... There is something about their experiences here but I don’t understand... I am skipping this part]
16. Using Visual Imagery (T)	Not Available
17. Translating (Bt)	“They have an interest in protecting”... [“protecting” korumak... “their” onların ... “natural” doğal... “environments” çevre... Çevreyi korumada onların bir ilgileri daha doğrusu duyarlılıkları var]
18. Drawing Inferences (T)	“the need to protect Antarctica from tourists”... [if there is no government the tourists coming there] ... “Antarctica from tourists” ... [then the tourists coming there have done some bad things]

19. Referring back to the Previous Information in the Text (T)	[Again he is complaining about the tourists...He is afraid tourists can harm Antarctica... the environment in Antarctica... yes...] “hurt”... “tourists”... (pointing at one of the previous sentences) [it says here too.]
20. Analyzing Sentence Structures (Bt)	“It is true that the number of tourists who visit Antarctica each year is small compared to the number of” [I have to divide this sentence into two] ... “it is true that” (signing on the sheet) ... “the tourists who visit Antarctica is small compared to the number of those who visit other places”... [Between the tourists who go to other places and the tourists who come to Antarctica...there is a comparison between them.]
21. Monitoring Comprehension (T)	“vacation”... [It is an important word here but I don’t know its meaning... anyway I can understand the general meaning here]
22. Summarizing the Gist (T)	[So they think that tourists there are dangerous ... the research tells this.]
23. Evaluating The Text (T)	Not Available

Note. (T) = Top-down reading strategies, (Bt) = Bottom-up reading strategies

After the identification of the strategies as can be seen in Table 7, all participants’ strategic performances in the think-aloud protocols and follow-up questions were analyzed in three categories as before-, while-, and after-reading strategies.

Before-Reading Strategies Identified in the Think-Aloud Protocols

Before-reading strategies whose examples are presented in Table 7 are given with the number of participants who employed them in the table below:

Table 8

Before-Reading Strategies Used in the Think-Aloud Protocols

Strategy	NP	ST
Predicting the content from the title	5	T
Relating the picture to the content	3	T
Skimming (+)*	3	T
Scanning*	1	T

Note. NP = Number of participants who used the strategy, ST = Strategy type, T = Top-down strategies, (+) = Both verbal and nonverbal strategy observed in the think-aloud process, * = The strategies emphasized in the treatment

As shown in Table 8, it was found that all participants tried to predict the content from the title. However, only three participants focused on the picture to predict the content of the text. In addition, although it was one of the focal strategies in the treatment, three of five participants skimmed the text before starting reading. While two participants verbalized their thoughts at this stage as can be seen in the example in item 3 in Table 7, one participant's application of this strategy was identified through the notes taken during the think-aloud process, as he did not verbalize it.

As another before-reading strategy which was also emphasized in the treatment, scanning was used by only one of the participants, whose verbal response can be seen in item 4 in Table 7. However, regarding the lack of comprehension questions in the think-aloud text, which may provide a reason for the reader to scan

the text, follow-up questions were considered as another criterion for the identification of this strategy. In the follow-up questions, it was observed that all the participants scanned the text quickly to find the specific information in the text in order to respond to the questions, as exemplified in the following excerpt:

- (I)R: If Antarctica is destroyed, how will it affect the whole world?
 Ali: (scanning the text)... If Antarctica is destroyed, the ice will melt. Water level will rise (pointing at the text) 200 feet. This will cause flood in a lot of places.

The transcript above shows that this student benefited from the top-down strategy of scanning to answer the comprehension question by focusing on especially the numerical information in the text. In fact, this excerpt is representative of all the participants' behaviors during the follow-up questions.

While-Reading Strategies Identified in the Think-Aloud Protocols

The while-reading strategies which were identified in the think-aloud protocols and the number of participants who used them are as follows:

Table 9

While-Reading Strategies Used in Think-Aloud Protocols

Strategy	NP	ST
Using background knowledge*	4	T
Predicting what will come next	5	T
Confirming predictions	4	T
Restatement	5	Bt
Integrating the information in the text	5	T
Questioning the information in the text	5	T
Rereading	5	Bt
Finding the main idea *	1	T
Focusing on individual words	5	Bt
Guessing the meaning of an unknown word	5	T
Skipping sentences and unknown words	5	T
Using visual imagery	0	T
Translating	5	Bt
Drawing inferences*	5	T

Table 9 continued on page 62

Referring back to the previous information in the text	4	T
Analyzing sentence structures	3	Bt
Monitoring comprehension	4	T
Underlining key words (+)*	5	T

Note. NP = Number of participants who used this strategy, ST = Strategy type, T = Top-down strategies, Bt = Bottom-up strategies, (+) = Nonverbal strategies observed in the think-aloud process, * = The strategies emphasized in the treatment

As can be seen in the table above, all participants utilized the strategies of predicting, restatement, integrating and questioning the textual information, rereading, focusing on individual words and guessing the meaning of unknown ones, skipping words and sentences, drawing inferences, and underlining key words. Since the strategy of underlining key words could not be verbalized by the participants, the notes taken during the think-aloud process were considered in the analysis. Regarding the participants' nonverbal behaviors, it was observed that all participants underlined the important segments and key words, especially when they focused on individual words and reread the sentences in the text.

Analyzing the participants' strategy application in detail, it was found that four participants predicted what would come next in the text, and then confirmed or disconfirmed their predictions as they were reading (sample excerpts can be seen in items 6 and 7 in Table 7). However, one participant, the one who used this strategy the most, did not check his predictions in his reading process. In addition, as they were reading, all participants focused on the individual words very often, and if they knew their meanings, they translated them directly into Turkish; if they did not know, they tried to guess the meaning of the words both by using the textual information and recalling their background knowledge (see items 17 and 14 in Table 7 for the samples). In fact, they used their background knowledge not only to guess the meaning of the unknown words, but also to infer some sections of the text as

illustrated in item 18 in Table 7. Also, it was observed that when they had comprehension problems, they tended to reread the sections of the text, refer back to the previous textual information, integrate what they comprehended, and draw inferences to overcome their comprehension difficulties. When they had problems with the interpretation of individual words as well as the sentences, they monitored their comprehension as well. As other important interpretations of the think-aloud protocols, it was observed that all participants questioned the textual information by asking themselves questions; and they generally translated or restated the segments they understood clearly.

In contrast with the frequently used strategies mentioned above, there are some strategies, like analyzing the sentence structures and finding the main idea, which were used by only a moderate number of participants, although finding the main idea was one of the focal strategies in the treatment. Therefore, the follow-up questions were taken into account as well, and it was observed that four participants succeeded to answer the questions related to the main idea of the text successfully, as exemplified in the following excerpt:

(I)R: What is the main idea of this text?
Sevgi: This text is about protecting the continent of Antarctica from tourists because tourists destroy animals, plants, the environment there.

As can be seen in the sample sequence from the follow-up questions, Sevgi was able to find the main idea of the text when she was asked although she did not verbalize it clearly in her think-aloud process. While three other participants achieved to find the main idea like Sevgi, there was one participant who had problems with comprehending the overall meaning of the text.

Similar to the strategy of finding the main idea, the strategy of distinguishing facts and opinions was searched in the students' responses to the follow-up questions. Although it was one of the strategies used in the treatment, it was not included in the analysis of the think-aloud protocols because the respondents were not expected to use this strategy without relevant questions. However, in the analysis of the follow-up questions, it was observed that two participants tried to distinguish the facts in the text from the writer's opinions, as can be seen in the sample transcription below:

- (I) R: What type of text is this?
Ahmet: There is a lot of scientific information in the text. The writer supports his ideas by giving examples from real events and describing his reasons. But there is no counter argument. May be this was taken from a newspaper article.

Although Ahmet was not asked about the facts and opinions mentioned in the think-aloud text directly, his answer displayed that he was able to differentiate the factual information from the writer's own ideas.

Finally, it was observed that visualizing the text was the only while-reading strategy that none of the participants used in the think-aloud protocols, probably because visualizing is a purely mental process which cannot be verbalized very easily.

After-Reading Strategies Identified in the Think-Aloud Protocols

In the analysis of the after-reading strategies in the think-aloud protocols, two strategies, summarizing the gist and evaluating the text, were taken into account as presented in Table 10 with the number of participants who employed them.

Table 10

After-Reading Strategies Used in Think-Aloud Protocols

Strategy	NP	ST
Summarizing the gist*	2	T
Evaluating the text*	0	T

Note. NP = Number of participants who used this strategy, ST = Strategy type, T = Top-down strategies, * = The strategies emphasized in the treatment

As illustrated in the table, although they were the strategies emphasized during the treatment, only two participants summarized the gist (an example excerpt can be seen in item 22 in Table 7), while none of the participants evaluated the text in the think-aloud protocols. However, follow-up questions used after the think-aloud processes indicated that if they were asked to comment on the text and summarize the gist of the text, all participants successfully evaluated the text and four participants managed to summarize the gist successfully by using their own words:

Sedat: Because of global warming and the ozone hole, Antarctic ice is melting. It gives information about tourists visiting this place. Killing animals... It tells about the things which destroy the natural life there. If they are not stopped, the whole world is in danger.

As exemplified in the transcript above, Sedat was able to summarize the gist of the text successfully like the other three participants. Yet, one participant, who used the fewest number of strategies and had comprehension problems while reading, could not accomplish summarizing the gist of the text in the follow-up questions, either.

In addition, although none of the participants evaluated the text without the follow-up questions, when they were asked, they all successfully evaluated it, as can be seen in the following excerpt:

(I) R: As a reader, how do you evaluate this text?

Ezgi: The destruction that tourists cause was explained in detail with the reasons. That's why, it can affect the readers more. And I didn't know the reasons of the global warming we always hear. It was very interesting for me.

Ezgi's answer shows that she was able to evaluate the text as a reader and relate the textual information with her background knowledge, as all the participants did when they were asked.

Bottom-up and Top-down Strategies in the Think-Aloud Protocols

After the analysis of the think-aloud protocols according to the process based categorization of the strategies, the strategies employed by the participants were examined quantitatively under two broad categories as bottom-up and top-down strategies as well. The following table displays the number of strategies used by each participant and their percentages in two strategy types as well as the total uses of bottom-up and top-down strategies:

Table 11

Top-Down and Bottom-up Strategies in the Think-Aloud Protocols

	P1	P2	P3	P4	P5	
ISU	196	180	281	124	177	
<u>Strategy Type</u>	<u>Percentages of the Strategy Types</u>					<u>Total</u>
Bottom-up strategies	53%	58%	57%	56%	51%	56%
Top-down strategies	47%	42%	43%	44%	49%	44%

Note. ISU = Instances of strategy use, P = Participant

According to the percentages shown in Table 11 above, all the participants relied on bottom-up strategies more than top-down strategies in their reading processes, a finding which conflicts with the results of the pre- and post-

questionnaires. This discrepancy will be discussed in detail in the next section. Also, as can be seen in the table above, the fourth participant employed the least number of strategies. In fact, he was the student who had difficulties in finding the main idea and summarizing the gist in the follow-up questions mentioned in the previous section. This finding indicates that there may be a relationship between the strategies employed in the reading process and the final comprehension of the text.

Comparison of the Questionnaire and Think-Aloud Protocol Results

For the comparison of the think-aloud and questionnaire results, students' overall strategic performances in the think-aloud protocols were compared with their questionnaire responses both in terms of bottom-up and top-down strategy types and in the individual strategy level to search for the answers for the fourth research question in this study.

In order to compare the bottom-up and top-down strategies, their percentages were computed in each of these instruments independently. For the analyses of the questionnaires, the percentages of these strategy types were taken separately to overcome any discrepancy which might have occurred due to the unequal number of items used for top-down and bottom-up strategies. As for the percentages in the think-aloud protocols, all the strategies used by the participants were considered as a whole to calculate the percentages of bottom-up and top-down strategies. The following table demonstrates the results of these calculations:

Table 12

Bottom-up and Top-down Strategies in Think-Aloud Protocols and Questionnaires

Strategy Types	<u>Percentages</u>		
	Pre-Q	Post-Q	TAP
Bottom-up strategies	53%	50%	56%
Top-down strategies	62%	67%	44%

Note. Pre-Q = Pre-questionnaire, Post-Q = Post-questionnaire, TAP = Think-aloud protocols

As discussed previously, a significant increase occurred in the percentages of top-down strategies between the pre- and post-questionnaires, while a slight decrease was observed in the use of bottom-up strategies. On the other hand, as can be seen in Table 12, when comparing the percentages of the strategies either reported or used, it is seen that the relative percentages shift, i.e., the top-down strategies are dominant in the reported strategy use while the bottom-up strategies are actually used in the reading process.

In addition to the overall comparison of the strategy types, eight representative strategies were chosen to compare the results of the questionnaires and the think-aloud protocols in the individual strategy level. While four significant examples were chosen to display the similarities, three examples were observed to be representative of the differences.

Representing the similarities, the strategies of using the title, underlining key words, guessing the meaning of the unknown words by using background knowledge, and rereading were considered. It was observed that the top-down strategy of using the title, as one of the most frequently used strategies according to the pre- and post-questionnaire results ($M1 = 4.05$, $M2 = 4.20$), was applied by all

five students before starting to read in the think-aloud protocols as well. Another strategy reported with a high mean score and a significant increase in the post-questionnaire was underlining key words ($M1 = 2.45$, $M2 = 3.25$), and considering the notes taken about their nonverbal behaviors, it was found that this top-down strategy was also employed very often by the students in the think-aloud protocols (applied 57 times by all the participants). Similarly the top-down strategy of guessing the meaning of unknown words was found to be a frequent strategy depending on both its mean scores in the questionnaire results ($M1 = 3.70$, $M2 = 3.70$) and its number of use in the think-aloud protocols (64 times). And lastly, the bottom-up strategy of rereading, which was employed by the students the most in the think-aloud protocols (149 times), was reported as an average strategy with high mean scores in both the pre- and post-questionnaires ($M1 = 3.60$, $M2 = 3.35$). It was observed that all the participants benefited from this strategy when they had comprehension problems while they were reading the think-aloud text.

In addition to the similarities discussed above, there were also some discrepancies occurring between the results of the aforementioned instruments, especially in the strategies of translating, focusing on the meaning of each single word, and formulating questions about the text. Translating, which is under the category of average strategies in the pre- and post-questionnaire results ($M1 = 2.65$, $M2 = 2.40$), was observed to be the third most frequently-used bottom-up strategy in the think-aloud protocols (135 times), after the strategies of rereading and restatement. A similar mismatch was found in the strategy of focusing on individual words as well since it was one of the frequent strategies in the think-aloud protocols

(88 times), while it was under the category of average strategies in the pre-questionnaire ($M = 2.35$) and among the rare ones in the post-questionnaire ($M = 2.10$). Lastly, formulating textual questions, which was reported as an average strategy in the pre-and post-questionnaires ($M1 = 2.70$, $M2 = 2.95$), was employed very often by the students in the think-aloud protocols (57 times).

To conclude, although some similarities occurred between the results of questionnaires and think-aloud protocols in the independent strategies, there are mismatches between the frequency of students' strategy use and their strategy employment regarding the overall use of bottom-up and top-down strategies. These findings will be discussed in detail in Chapter 5.

Analyses of the Post-Treatment Interviews

For the analysis of the post-treatment interviews, first, the participants' answers to the questions were categorized under three broad titles as: (a) the strategies that they found useful or difficult to apply, (b) their opinions about the benefits of reading for the gist in a top-down or reading in detail in a bottom-up manner, and (c) their perceptions of the strategy training and its duration. After the categorization, the relevant sequences of the interviews were transcribed and translated into English (for a sample, see Appendices H and I).

Results of the Post-Treatment Interviews

The post-treatment interview results revealed changes in students' strategy repertoires and thus strengthened the findings of the post-questionnaire about the impacts of the strategy instruction on students' strategic performances. The following table illustrates the students' responses to the questions related to the strategies that

they recalled from the strategy instruction sessions as the most useful and difficult ones:

Table 13

The Strategies Reported as Useful and Difficult in the Post-Treatment Interviews

Strategies Reported as Useful	NP	Strategies Reported as Difficult	NP
-Skimming	3	-Skimming	2
-Scanning	3	-Drawing inferences	2
-Using background knowledge for prediction	2		
-Writing key words	4		
-Finding the main idea	2		
-Drawing inferences	1		

Note. NP = The number of participants who reported this strategy

As demonstrated in Table 13, in the interviews, the students reported six strategies out of ten which were taught throughout the strategy instruction as the useful ones. Reported by four participants, writing key words was found to be the most useful strategy as exemplified by the following excerpt:

Ezgi: Finding key words is important because I am trying to predict something by using the key words in the text. By looking at them, I can use my prior knowledge, and if I underline the important parts, they help me to remember and understand the text without rereading the whole. Especially the key words are very important to understand the meaning of a text.

As Ezgi reported in the interview sequence above, most of the respondents found writing key words and underlining the important parts of a text important since these strategies made it easy for them to remember and comprehend texts without rereading. Difficult strategies to apply were reported to be skimming and drawing

inferences, as can be seen in Table 13. The following excerpts from the interviews display why they found skimming and drawing inferences difficult:

Sevgi: Skimming was a bit difficult. Actually I didn't like it very much. I couldn't get what I wanted from the text by looking through it or by looking at only the first and the last paragraphs... or by looking at the beginnings and the endings of the paragraphs.

Ahmet: Difficult strategies... Inferences were difficult. I read the text and I understood something, but the hidden meanings were different. Maybe it was difficult for me because of my vocabulary knowledge. I didn't know the different meanings of these words.

As Sevgi reported, some of the students found the strategy of skimming difficult as they thought looking through the text before reading in detail did not give much information. This may also be the reason why only three students used skimming in the think-aloud protocols, while the other two participants did not utilize this strategy. Also, as Ahmet indicated, drawing inferences was reported as another challenging strategy for the students probably due to their problems in vocabulary. However, all the students who verbalized their reading performances in the think-aloud protocols tried to make inferences despite the difficult nature of this strategy.

In contrast to the four students whose ideas were demonstrated above with the sample transcriptions, one of the respondents reported that none of the strategies presented were difficult, as they all made it easy for him to read more effectively. The following sequence taken from the interview conducted with him displays his awareness of the facilitating effect of the strategy application:

Sedat: Already everything was to make reading easier for us but... which one was difficult?... All have made it easy. I can't remember any difficult one.

In the second cycle of the post-treatment interview analyses, students' opinions about reading in bottom-up and top-down manners were investigated. The excerpt below shows most of the respondents' ideas about using top-down reading strategies:

Ahmet: When we know what we need to understand, there is no need to examine each word. We can already understand the meaning of the text with the main ideas. But if we want to understand every detail in the text, it may be necessary to examine each word one by one.

Examining Ahmet's and the other three respondents' answers to the question related to their general reading behaviors, it was observed that they all agreed on the benefits of reading with a purpose in a top-down manner without focusing on only the individual words in a text unless it is necessary. However, one student reported that reading the text word by word was easier since she was able to comprehend texts in an inductive way.

Third, students were asked for their opinions about explicit strategy instruction and its duration. Their responses indicated their positive perceptions of the strategy instruction. They all reported that this 3-week instruction constructed a basis for the use of strategies, and they wanted to be provided with explicit strategy instruction more, as shown in the following excerpt:

(I) R: Would you like to get this strategy instruction more?
Ali: After these three weeks, I believe that it would be useful. I would like to get. I believe that they will be useful in the exams, too.
(I) R: Do you think three weeks were enough for this strategy instruction?
Ali: It was enough to learn them in general. But I think we have more to learn to use them in detail... sufficiently.

The representative transcript above indicates students' positive attitudes towards the strategy instruction in top-down reading strategies. However, they were all aware that they needed more training to use these strategies more effectively in

their reading processes. This view expressed in the interviews is parallel to the students' strategy employment in the think-aloud protocols since they were not able to use all strategies efficiently probably because they needed more practice before they could internalize these strategies and use them independently.

In the last category of the post-treatment interviews, when students were asked if they were going to use the strategies presented during the training in their future reading, they all reported that they wanted to use them because they believed that these strategies facilitated their reading as can be seen in the transcription below. In addition, three respondents expressed that they would use especially the strategy of skimming since they found it so beneficial.

(I) R: Do you think you will use these strategies in your future readings?

Sedat: Of course, I will use. Why not if they are beneficial? In fact, not only in reading books but also in research, homework and exams, they are useful as they are time saving.

In sum, the interviews conducted with 5 students in the intact group after the treatment showed that the instruction in top-down reading strategies raised their consciousness of the strategic reading as well as its facilitating effects, although they believed that the application of some of the strategies was difficult.

Conclusion

This study investigated (a) the university students' existing reading strategy repertoires, (b) the impacts of the strategy instruction in top-down reading strategies, (c) the strategies that students were able to apply in their reading processes, and (d) the relationship between the students' reported frequency of strategy use and their strategy employment in their reading practice. The results of the pre- and post-questionnaire correlation indicated that the explicit strategy instruction affected the students' top-down reading strategy use positively since significant increases were

observed both in their overall comparison and in the individual item level. Furthermore, the findings of the post-treatment interviews supported the questionnaire results as well. However, the mismatches that occurred between the frequency of the strategies reported in the questionnaires and the strategies employed in the think-aloud protocols and follow-up questions indicated that the students need more training and practice to be able to benefit from these strategies in their independent reading processes. These mismatches also demonstrated the difference between identifying a strategy and actually applying it.

CHAPTER V: CONCLUSIONS

Introduction

The purpose of this study was to investigate (a) the university students' existing reading strategy repertoires, (b) the impact of instruction in top-down reading strategies on their strategic performance, (c) the strategies that students were able to apply in their reading processes, and (d) the relationship between the students' reported frequency of strategy use and the employment of strategies in their reading practice.

In the data collection procedures, the Reading Strategy Questionnaire (Oxford et al., 2004; Uzunçakmak, 2005) was administered to 20 intermediate level students at Erciyes University before and after the instruction in top-down reading strategies provided for three weeks. In addition, 5 volunteer students from the same group verbalized their reading processes in the think-aloud protocols and answered the follow-up questions. The same participants also responded to the questions in the semi-structured interviews after the treatment.

In the analyses of the data, first, paired samples *t*-tests were run both in the whole questionnaire and in the independent item level to investigate the effects of the consciousness-raising program. Second, the think-aloud protocols were transcribed, translated into English, as they were conducted in Turkish, and coded to search for the evidence of the reading strategies employed by the participants. Then, these

findings were compared with the questionnaire results. Third, the student responses to interview questions were analyzed under three categories.

This chapter is dedicated to the interpretation of the findings gathered via several instruments by elaborating the answers given to the research questions and the discussions from the research on reading strategies in the literature. Based on these findings, pedagogical implications will also be drawn. Then, this chapter will be completed by discussing the limitations of the study as well as the suggestions for further research on reading strategies.

Findings and Discussion

According to the statistical analysis of the pre-questionnaire, it was observed that the students in the intact group reported using top-down strategies more frequently than bottom-up reading strategies. However, research on reading strategies both in the Turkish and the international context has indicated that especially less successful learners cannot use top-down strategies effectively (Block, 1986; Oxford et al., 2004; Uzunçakmak, 2005). Considering this conflict between the pre-questionnaire results and the literature as well as the classroom teacher's and the group coordinator's views, these high scores found in the items of the top-down strategies were attributed to the implicit instruction students received in the current text book used in reading classes in the School of Foreign Languages at Erciyes University. In fact, by analyzing the textbook, it was observed that students might have been familiar with the names of the strategies asked in the questionnaire although they neither received explicit instruction on them nor practiced using them individually, and thus they were not aware of the true nature of strategic reading.

In addition to the findings about the students' general reading strategy repertoires, their performances in top-down strategies were also investigated. The strategies were categorized under three titles, rare, average and frequently used (see Table 3 in Chapter 4). The students reported 3 top-down strategies as rarely used, 19 strategies as moderately used, and 8 strategies as the frequent ones. So, according to students' reports, students' top-down strategy use was found to be moderate. By this means, the first research question in this study, which is related to the students' existing reading strategy repertoires and specifically, their reported use of top-down reading strategies, was answered.

The second research question, which was related to the effects of strategy instruction on students' strategic performances, has been answered by comparing students' responses to the post-questionnaire with the pre-questionnaire results, and the findings were supported by the students' responses to the interview questions.

Analyzing the post-questionnaire, it was observed that there was a significant increase in the means of top-down reading strategies, which might have been associated with the positive effects of the explicit strategy instruction, as reported in the literature by Aarnoutse and Schellings (2003), Alfassi (2004), Carrell et al. (1989), Hosenfeld (1984), Kern (1989) and Salatacı and Akyel (2002). In contrary to top-down strategies, students' bottom-up strategy use was decreased, yet it was not statistically significant. This slight decrease was also attributed to the strategy instruction since its focal point was top-down reading strategies.

The results of *t*-tests applied for each individual item in the questionnaires displayed that there were also significant increases in eight items involving the

strategies emphasized during the instruction (see Table 5 in Chapter 4). The reason for these increases may be the explicit strategy instruction provided for three weeks.

In contrast to the items with significant increases, in two top-down strategies, integrating the textual information and guessing the meaning of a word from the context, significant decreases were found depending on students' self reports. These decreases can be connected with the focal strategies in the consciousness-raising program since they were not among the ones emphasized in the treatment.

Furthermore, although it was not statistically significant, there was a slight decrease in the item of drawing inferences, which was among the strategies focused on during the training. Considering the requirement of awareness for the use of strategies (Cohen, 1998), this decrease in the mean score of this strategy can be put down to the consciousness-raising program in which students could understand the real nature of making inferences. To be more specific, as mentioned in the literature, the students might have experienced difficulty inferring the hidden meanings in the text due to the problem of limited background knowledge on the topic or the trouble in focusing on the relevant sections of the text to draw inferences (Omanson, Warren & Trabasso, 1978; Paris & Lindauer, 1976 as cited in Dewitz, Carr & Patberg, 1987). In this respect, the students' responses to the interview questions also matched with the findings of the post-questionnaire since two participants reported that they found the strategy of drawing inferences difficult to adopt. They also commented on the reasons for this difficulty and assessed themselves. They believed that their vocabulary problems might have been the obstacle for them to comprehend the inferential meanings while reading.

Similar to the analysis of the top-down strategies, students' application of bottom-up strategies after the treatment was also investigated in the independent item level. The results indicated that the students tended to focus on the sentence structure more after the strategy instruction. This increase was also considered positive in terms of strategic reading since recent studies in the literature assert that effective reading requires the application of both bottom-up and top-down strategies interactively (Carrell, 1984; Carrell & Eisterhold, 1983; Cohen, 1990; Grabe & Stoller, 2002; Silberstein, 1994; Urquhart & Weir, 1998). However, in the item of reading the whole text from the beginning to the end, there was a significant decrease probably due to the skimming practices done during the training. Similarly, in the bottom-up strategy of adjusting the reading rate, a significant decrease was observed, which might have occurred due to the emphasis on comprehending the overall meaning of texts according to the reading purposes during the training.

The results obtained through the comparison of the questionnaires were supported by the students' responses to the semi-structured interview questions. It was found that the strategies that they reported as beneficial - writing key words, skimming, and scanning - were in the categories of frequent and average strategies according to the results of the post-questionnaire. This finding indicates that although not all of these strategies could become frequently-used ones, the students were aware of their benefits due to the consciousness-raising program.

The students' responses in the post-treatment interviews also showed that students had positive attitudes towards explicit strategy instruction because they reported that they achieved reading faster and easier after the training. This may indicate that the students have started to feel more confident in their reading

processes probably because they realized the facilitating effects of strategic reading (Auerbach & Paxton, 1997; Paris et al., 1991).

As for students' perceptions of the top-down reading strategies, all but one of the respondents were found to be aware of the usefulness of reading with a purpose to comprehend the overall meaning of the text. This may indicate that instruction in top-down strategies seemed to be useful for students to raise their awareness in terms of reading purposefully. It is also emphasized in the reading research that creating independent readers focusing on the text with a purpose and adopting the relevant strategies according to them should be the long-term goal of strategy training (Cohen, 1998; Grant, 1994; Janzen & Stoller, 1998; Silberstein, 1994). Moreover, all participants reported that they wanted to employ the strategies presented in the strategy instruction in their future reading. These findings of the interviews supported the significant increases which occurred in the post-questionnaire.

In sum, as an answer to the second research question, the interpretation of the findings from students' self reports in the questionnaires as well as in the interviews have demonstrated the positive effects of strategy instruction on students' awareness of reading strategies.

After the identification of the reading strategies depending on students' reports in the pre- and post-questionnaires, think-aloud protocols were used to investigate the answers to the third research question in this study, which was related to the students' mental processes in their reading practice. The analyses of the think-aloud protocols showed that students tried to make predictions and formulated hypotheses about the topic by looking at the title and the picture, and by skimming the text before they started reading. The application of these strategies was

considered positive strategic performance since the use of pre-reading strategies is emphasized in the literature as facilitating comprehension of the explicit and implicit information in the text (Paris et al., 1991). Moreover, it was observed that there was a general tendency to use top-down strategies before reading which can be attributed to the emphasis of the strategy instruction. While reading the text, they used both bottom-up and top-down strategies interactively as suggested in the literature for effective reading (Cohen, 1990; Grabe & Stoller, 2002; Urquhart & Weir, 1998). However, it was also observed that, they mostly preferred bottom-up strategies at this stage. The only strategy that none of the students used while reading was visualizing, one of the “mentalistic strategies” which cannot be verbalized and observed directly in the think-aloud protocols (Cohen, 1998, p. 12). As for the after-reading strategies, it was found that they could not benefit from them independently during the think-aloud protocols although these strategies were also emphasized during the training and there was a significant increase in the mean score of the strategy of evaluating the text and the writer according to the comparison of the pre- and post-questionnaires.

After the process based analyses of the think-aloud protocols, the findings were combined with the students’ responses to the follow-up questions. It was observed that they scanned and evaluated the text, found the main idea, distinguished facts and opinions and summarized the gist when they were asked the relevant questions. Their success in answering these questions showed that they were aware of these strategies as well probably as a result of the consciousness-raising program, but they were not able to use them independently in their reading practice. Because they could not internalize them in the short-term training, they needed stimulus to

manage to use them. This situation matches with the emphasis on the notion of long-term strategy training and practice mentioned in the literature (Grabe & Stoller, 2002).

Examining the overall strategy use in the think-aloud protocols, it was discovered that students tended to use more bottom-up strategies than top-down reading strategies in practice. This result of the think-aloud protocols matches with that of Davis and Bistodeau's (1993) since they mentioned that students tended to use bottom-up strategies more while reading in L2. However, they also emphasized that "top-down knowledge sources clearly had an effect upon strategy use" (p. 465). In fact, this general tendency to rely on the bottom-up strategies, like translation, restatement and rereading, can be related to the think-aloud process in which students verbalized their thoughts in their native languages due to their lack of language proficiency. Hosenfeld (1984) also draws attention to this limitation of think-aloud protocols and explains that introspective methods may result in excessive use of translation.

To summarize, the investigation of the students' cognitive processes in their reading practice provided answers for the third research question and revealed that students tended to use more bottom-up strategies than top-down strategies while reading because they might have needed more practice to use top-down strategies independently.

After the independent analyses of the think-aloud protocols, their findings were compared with the students' questionnaire results in order to answer the last research question in this study. This combination of the findings obtained from these instruments present a multilayered perspective by combining students' self-reports

with the use of strategies in practice, and thus addressing both the frequency of students' strategy use and their strategy application in practice as suggested in the literature (Tseng et al., 2006). Their comparison showed that there were some similarities between their think-aloud performances and self-reports in the item level. In the post-questionnaire, students reported frequently-used strategies as using the title, rereading, underlining key words and using background knowledge to guess the meanings of unknown words, and they also employed them very often in their reading processes according to the analysis of the think-aloud protocols. In fact, the top-down strategies of using the title and underlining key words were among the emphasized ones in the training program. However, the overall comparison of the pre-and post-questionnaire and think-aloud protocol results displayed a discrepancy since the students used more bottom-up strategies in the think-aloud protocols although they reported that they used top-down strategies frequently in the questionnaires with significant increases after the training. This discrepancy indicated that although students' awareness of top-down reading strategies was raised during the consciousness-raising program, they needed more training to apply them in their real reading practices individually. As mentioned in the literature, long-term training and practice is required to internalize the strategies and apply them independently (Chamot & O'Malley, 1994; Chamot et al., 1999; Grabe & Stoller, 2002) because the development of strategic reading is a slow process (Barnett, 1988). In addition, although this discrepancy can be attributed to the limitations of using questionnaires to assess strategies (Cohen, 1987), the students may also need more metacognitive strategy training to be more aware of their own reading strategy

repertoires and assess their reading performances by themselves (Chamot & O'Malley, 1994).

Pedagogical Implications

The findings of this study have several implications for the identification of strategies and raising students' awareness of reading strategies via explicit strategy instruction.

As O'Malley and Chamot (1990) assert, think-aloud protocols and interviews can be used to discover students' reading strategy applications. In fact, several methods used to identify students' reading strategies in this study have shown that correlating the results of more than one instrument to assess strategies can give more detailed insights about students' needs in their reading processes. These activities can serve both as consciousness-raising practice for students to assess themselves and as resources for teachers to determine their students' needs for instruction.

Another finding of this study is related to the positive impacts of strategy instruction facilitating students' reading processes and raising their consciousness. Considering the positive results observed after the explicit reading strategy training in this study, teachers 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, teachers 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. These elements to be emphasized during training bring the notion of emphasizing both cognitive and metacognitive strategies 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 (Carrell, 1989). In this way, they can be more aware of their own limitations and try to overcome their difficulties.

The strategy training program designed for this study has also shown that reading strategy instruction can be given by adapting the materials in text books and emphasizing the strategies explicitly. By this means, strategy instruction can be integrated into the curriculum and be part of each lesson because it requires effort and long-term training. In addition, the lesson plans designed for this study can provide models for teachers who want to give explicit strategy instruction.

Limitations of the Study

In searching for the university students' strategy repertoires and self-awareness of their reading strategy performances as well as the effects of strategy instruction, this study has three major limitations.

One of the limitations for the investigation of learning strategies is that it is challenging to identify them because they are internal processes. According to Cohen (1998), there are two types of strategies: (a) "behavioral strategies", which are somehow easy to observe, and (b) "mentalistic strategies" which cannot be identified directly since they are totally mental processes (p.12). Thus, the first limitation of this study is related to finding the appropriate methods to elicit students' strategy repertoires. Although the administration of highly-structured questionnaires and semi-structured interviews has the advantage of focusing on the relevant information for the research and provides data which are easy to use in the statistical analysis (Cohen, 1998; Oxford, 1996), the participants might not have had a real opportunity

to reflect on their actual strategy uses. In addition, they may not have self-assessed or reported their real strategic performances clearly.

Considering this limitation of the questionnaires and interviews, and the suggestion of using a combination of several methods to identify learning strategies in the literature (Cohen, 1998; Tseng et al., 2006), think-aloud protocols were also used in this research design. Verbal reports are considered as the most feasible instruments to elicit learning strategies in the literature although they have their own limitations as well. Such reports are regarded as a type of instrument which puts a great burden on the participants; thus participants may not accurately reflect their mental processes accurately (Oxford, 1996). As a form of verbal report, think aloud protocols have the advantage of providing more direct data about the students' actual mental processes in practice (Block, 1986). However, the training provided before the think-aloud protocols may have affected the participants' verbal responses in their real process. In addition, while conducting the think-aloud protocols in the target language could result in inefficient data due to the participants' lack of language proficiency, using the native language might have caused more attempts by students to translate and inclined them to use more bottom-up reading strategies.

The third limitation is that the number of items for bottom-up and top-down strategies in the questionnaire was not the same. Since the focal point of this research design is the top-down reading strategies, the number of items about them was high. However, this situation was also a limitation in answering the first research question which was about the students' whole strategy repertoires. In addition, having unequal number of items for these two reading strategy types created difficulties in the comparison of the think-aloud protocols and the questionnaires since the strategies

used in the think-aloud protocols did not totally intersect with the questionnaire items.

Suggestions for Further Research

Regarding the findings and the limitations of this study, there may be several suggestions offered for further research on reading strategies.

Since this study has revealed that there is a mismatch between students' reported strategy use and their strategy application in process, the effects of metacognitive strategy instruction on students' awareness of reading strategies can be the focal point for future researchers. In searching for students' awareness of reading strategies, 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.

The follow-up questions used in this research design served as another data source to investigate the strategies that the students applied in their reading processes. However, more structured comprehension questions may be administered after the think-aloud protocols to search for the impacts of strategy application on comprehension ability. In such a research design, successful and unsuccessful readers' strategy repertoires can also be examined.

Considering the instruments to be used in the further research, asking students to keep journals during the strategy instruction may provide more detailed information about their perceptions of reading strategies. Furthermore, these journals can be useful to keep track of the changes in their strategic performances during the strategy training.

Teachers' perceptions of their students' needs in terms of reading strategy instruction can also be used in the further research. Teachers' viewpoints may be compared with students' strategy repertoires as well as the results of the needs analysis conducted with them so that the discrepancies between students' needs and teachers' views can be investigated.

Conclusion

This study investigated students' awareness of reading strategies as well as the impacts of the explicit strategy instruction on their strategic performances. The results of the questionnaires and post-treatment interviews indicate that explicit strategy instruction had positive effects on students' strategy applications. However, from the findings of the think-aloud protocols, it was deduced that the strategies which were reported as frequently used in the questionnaires could not be employed by students efficiently during practice. This discrepancy between the reported frequency of strategies and the strategy employment in practice suggests that they need more practice to internalize and use them in their reading processes individually. Moreover, this discrepancy showed the requirement of long-term consciousness-raising programs which aim to increase students' metacognitive awareness to enable them to reflect on their reading performances and self-assess their needs.

References

- Aarnoutse, C. & Schellings, G. (2003). Learning reading strategies by triggering reading motivation. *Educational Studies*, 29/4, 387-409.
- Aebbersold, J. A. & Field, M. L. (1997). *From reader to reading teacher: Issues and strategies for second language classrooms*. New York: Cambridge University Press.
- Auerbach, E. R. & Paxton, D. (1997). "It's not the English thing": Bringing reading research into the ESL classroom. *TESOL Quarterly*, 31/2, 237-261.
- Alfassi, M. (2004). Reading to learn: Effects of combined strategy instruction on high school students. *The Journal of Educational Research*, 97/4, 171-184.
- Allen, S. (2003). An analytic comparison of three models of reading strategy instruction. *IRAL*, 41, 319-338.
- Anderson, N. J. (1991). Individual differences in strategy use in second language reading and testing. *The Modern Language Journal*, 75/4, 460-472.
- Anderson, N. (1999). *Exploring second language reading: Issues and strategies*. Canada: Heinle & Heinle.
- Anderson, N. (2006). *Developing metacognitively aware readers*. Paper presented at 40th Annual TESOL Convention and Exhibit. Florida, Tampa.
- Barnett, M. A. (1988). Reading through context: How real and perceived strategy use affects L2 comprehension. *The Modern Language Journal*, 73/2, 150-162.
- Barton, L. & Sardinas, C. D. (1998). *Northstar intermediate reading and writing*. New York: Pearson Education.

- Block, E. (1986). The comprehension strategies of second language readers. *TESOL Quarterly*, 20/3, 463-494.
- Block, E. (1992). See how they read: Comprehension monitoring of L1 and L2 readers. *TESOL Quarterly*, 26/2, 319-343.
- Brantmeier, C. (2002). Second language reading strategy research at the secondary and university levels: Variations, disparities, and generalizability. *The Reading Matrix*, 2/3, 1-14.
- Carrell, P. L. (1984). Schema theory and ESL reading: Classroom implications and applications. *The Modern Language Journal*, 68/4, 332-343.
- Carrell, P. L. (1987). Content and formal schemata in ESL reading. *TESOL Quarterly*, 21/3, 461-483.
- Carrell, P. L. (1989). Metacognitive awareness and second language reading. *The Modern Language Journal*, 73/2, 121-134.
- Carrell, P. L. (1996). Interactive text processing: Implications for ESL/second language reading classrooms. In P. L. Carrell, J. Devine & D. E. Eskey (Eds.), *Interactive approaches to second language reading* (pp. 239-259). New York: Cambridge University Press.
- Carrell, P. L. & Eisterhold, J. L. (1983). Schema theory an ESL reading pedagogy. *TESOL Quarterly*, 17/4, 553-573.
- Carrell, P. L., Pharis, B. G. & Liberto, J. C. (1989). Metacognitive strategy training for ESL reading. *TESOL Quarterly*, 23/4, 647-78.
- Chamot, A. U. (1987). The learning strategies of ESL students. In A. L. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 71-85). Cambridge: Prentice Hall.

- Chamot, A. U. & O'Malley, J. M. (1994). *The CALLA handbook: Implementing cognitive academic language learning approach*. New York: Addison-Wesley Publication.
- Chamot, A. U., Barnhardt, S., El-Dinary, P. B. & Robbins, J. (1999) *The learning strategies handbook*. New York: Pearson Education.
- Cohen, A. D. (1987). Studying language learning strategies: How do we get the information? In A. L. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 31-40). Cambridge: Prentice Hall.
- Cohen, A. D. (1990). *Language learning: Insights for learners, teachers, and researchers*. New York: Newbury House.
- Cohen, A. D. (1998). *Strategies in learning and using a second language*. London: Pearson Education.
- Davis, J. N. & Bistodeau, L. (1993). How do L1 and L2 reading differ? Evidence from think-aloud protocols. *The Modern Language Journal*, 77/4, 459-472.
- Dewitz, P., Carr, E. M. & Patberg, J. P. (1987). Effects of inference training on comprehension and comprehension monitoring. *Reading Research Quarterly*, 22/1, 99- 119.
- Grabe, W. (1986). The transition from theory to practice in teaching reading. In F. Dubin, D. E. Eskey & W. Grabe (Eds.), *Teaching second language reading for academic purposes* (pp. 25-48). New York: Addison-Wesley Publishing Company.
- Grabe, W. (1988). Reassessing the term "interactive". In P. L. Carrell, J. Devine & D. E. Eskey (Eds.), *Interactive approaches to second language reading* (pp. 56-70). New York: Cambridge University Press.

- Grabe, W. (1991). Current developments in second language reading research. *TESOL Quarterly*, 25/3, 375-406.
- Grabe, W & Stoller, F. L. (2001). Reading for academic purposes: Guidelines for the ESL/EFL teacher. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (pp. 187-203). Boston: Heinle & Heinle.
- Grabe, W. & Stoller, F. L. (2002). *Teaching and researching reading*. London: Longman.
- Grant, R. (1994). Comprehension strategy instruction: Basic considerations for instructing at-risk college students. *Journal of Reading*, 38/1, 42-48.
- Gülsen, F. & Tolungaç, G. (2004). *www.dbe.off-line.readings 1*. Ankara: METU Press.
- Heimlich, J. E. & Pittelman, S. D. (1986). *Semantic mapping: Classroom applications*. Newark: Reading Aids Series.
- Hosenfeld, C. (1984). Case studies of ninth grade readers. In J. C. Alderson & A. H. Urquhart (Eds.), *Reading in a foreign language* (pp. 231-244). New York: Longman.
- Janzen, J. (1996). Teaching strategic reading. *TESOL Journal*, 6/1, 6-9.
- Janzen, J. & Stoller, F. L. (1998). Integrating strategic reading in L2 instruction. *Reading in a Foreign Language*, 12/1, 251-269.
- Kern, R. G. (1989). Second language reading strategy instruction: Its effects on comprehension and word inference ability. *The Modern Language Journal*, 73/2, 135-149.
- McDonough, S. H. (1995). *Strategy and skill in learning a foreign language*. New York: St. Martin's Press.

- Mosenthal, J. H., Schwartz, R. M. & MacIsaac, D. (1992). Comprehension instruction and teacher training: More than mentioning. *Journal of Reading*, 36/3, 198-207.
- O'Malley, J. M. & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge: Cambridge University Press.
- Oxford, R. (1990). *Language learning strategies: What every teacher should know*. Boston: Heinle & Heinle.
- Oxford, R. (1996). *Language learning strategies around the world: Cross-cultural perspectives*. Hawai'i: University of Hawai'i Press.
- Oxford, R. (2001). Language learning styles and strategies. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (pp. 359-366). Boston: Heinle & Heinle.
- Oxford, R. & Crookall, D. (1989). Research on language learning strategies: Methods, findings and instructional issues. *The Modern Language Journal*, 73/4, 404-419.
- Oxford, R., Chao, Y., Leung, S. & Kim, H. (2004). Effects of the presence and difficulty of task on strategy use: An exploratory study. *IRAL*, 42, 1-47.
- Palincsar, A. S. & Brown, A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction*, 1/2, 117-175.
- Paris, S. G., Wasik, A. & Turner, J. C (1991). The development of strategic readers. In R. Barr, M. L. Kamil, P. Mosenthal & P. D. Pearson (Eds.), *Handbook of reading research* Volume II (pp. 609-640). New Jersey: Lawrence Erlbaum.

- Pearson, P. D. & Fielding, L. (1991). Comprehension instruction. In R. Barr, M. L. Kamil, P. Mosenthal & P. D. Pearson (Eds.), *Handbook of reading research* Volume II (pp. 815-860). New Jersey: Lawrence Erlbaum.
- Rubin, J. (1987). Learner strategies: Theoretical assumptions, research history and typology. In A. L. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 15-31). Cambridge: Prentice Hall.
- Sadık, S. (2005). *Effects of strategy focus activities on students' reading strategy use*. Unpublished master's thesis, Bilkent University, Ankara.
- Salatacı, R. & Akyel, A. (2002). Possible effects of strategy instruction on L1 and L2 reading. *Reading in a Foreign Language*, 14/1, 1-16.
- Samuels, S. J. & Kamil, M. L. (1988). Models of reading process. In P. L. Carrell, J. Devine & D. E. Eskey (Eds.), *Interactive approaches to second language reading* (pp. 22-37). New York: Cambridge University Press.
- Silberstein, S. (1994). *Techniques and resources in teaching reading*. Oxford: Oxford University Press.
- Simpson, M. L. (1984). The status of study strategy instruction: Implications for classroom teachers. *Journal of Reading*, 28, 136-142.
- Swaffar, J. K. (1988). Readers, texts and second languages: The interactive process. *The Modern Language Journal*, 72/2, 123-149.
- Thompson, I. (1987). Memory in language learning. In A. L. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 43-57). Cambridge: Prentice Hall.

- Tseng, W., Dörnyei, Z. & Schmitt, N. (2006). A new approach to assessing strategic learning: The case of self-regulation in vocabulary acquisition. *Applied Linguistics*, 27/1, 78-102.
- Tuyan, S. (1998). *An identification and description of the reading strategies used by freshman students through think-aloud protocols*. Unpublished master's thesis, Çukurova University, Adana.
- Urquhart, A. H. & Weir, C. J. (1998). *Reading in a foreign language: Process, product and practice*. New York: Longman.
- Uzunçakmak, P. (2005). *Successful and unsuccessful readers' use of reading strategies*. Unpublished master's thesis, Bilkent University, Ankara.
- Wade, S. E. (1990). Using think alouds to assess comprehension. *The Reading Teacher*, March, 442-451.
- Yetgin, E. (2003). *Evaluation of reading strategy instruction in an EFL reading textbook and teachers' perceptions of that reading strategy instruction*. Unpublished Master's Thesis. Bilkent University, Ankara.

APPENDICES

Appendix A

Reading Strategy Questionnaire

This questionnaire is designed to get information about how you read a text in English. The information gathered via this questionnaire will be used in a master's thesis on reading strategies.

Show how often you use strategies by checking the appropriate number. While 1 means "never", 5 means "almost always".

Never	Rarely	Sometimes	Often	Almost always
1	2	3	4	5

Answer the statements by thinking of what you are doing while reading in English, not in terms of what you should do. The score you obtain will not affect your lesson grades, and your answers to the questionnaire will be kept confidential.

Before I read a text,

	Never	Rarely	Sometimes	Often	Almost always
1. I use the title to predict the contents.	1	2	3	4	5
2. I consider what type of text it is, such as a newspaper article, a scientific paper, or a novel.	1	2	3	4	5
3. I skim it first, and later I read for details.	1	2	3	4	5
4. I look through the text to spot specific information such as dates, names, or numbers.	1	2	3	4	5
5. I pay attention to visuals such as graphs, pictures, or tables.	1	2	3	4	5
6. I use my prior knowledge about the topic to predict the content.	1	2	3	4	5

While I am reading a text,

	Never	Rarely	Sometimes	Often	Almost always
7. I pay attention to parts of sentences such as phrases and clauses.	1	2	3	4	5
8. I pay attention to the beginning and the end of each paragraph.	1	2	3	4	5
9. I focus on the tense of a verb, such as present tense and past tense.	1	2	3	4	5
10. I try to understand the meaning of every word in a text.	1	2	3	4	5
11. I translate each sentence into my native language.	1	2	3	4	5
12. I start reading from the first paragraph and read all the way through the last paragraph.	1	2	3	4	5
13. I pay attention to sentence structure, such as objects and subjects.	1	2	3	4	5
14. I continue reading even if I have difficulty.	1	2	3	4	5
15. I change reading speed depending on the difficulty of a text.	1	2	3	4	5
16. I read aloud the difficult parts of a text.	1	2	3	4	5
17. I skip unknown words.	1	2	3	4	5
18. I link the content with what I already know.	1	2	3	4	5
19. I try to understand the meaning of an unknown word by dividing it into parts.	1	2	3	4	5
20. If I don't understand something such as a word or phrase, I guess its meaning using clues from the text.	1	2	3	4	5
21. If I don't understand something such as a word or phrase, I guess its meaning using information I know about the topic.	1	2	3	4	5
22. I check what each pronoun refers to.	1	2	3	4	5
23. I underline important parts.	1	2	3	4	5
24. I mark important parts, using colored pens or drawing stars.	1	2	3	4	5
25. I go over difficult parts several times.	1	2	3	4	5
26. I read aloud the entire text.	1	2	3	4	5
27. I make a picture in my mind about what the text is saying.	1	2	3	4	5
28. I try to understand the meaning without translating the text into my native language.	1	2	3	4	5
29. If I'm having trouble, I go back to previous sentences.	1	2	3	4	5

	Never	Rarely	Sometimes	Often	Almost always
30. I try to connect information within the text.	1	2	3	4	5
31. I ask questions related to the text or what I have read.	1	2	3	4	5
32. I follow the line I am reading with my finger or my pen.	1	2	3	4	5
33. I use slashes to divide a sentence grammatically.	1	2	3	4	5
34. When I cannot understand a sentence even if I know every word, I skip that sentence.	1	2	3	4	5
35. I predict what will come next.	1	2	3	4	5
36. I try to confirm or disconfirm the predictions, guesses, or inferences I have made.	1	2	3	4	5
37. I pay attention to linking words such as “however” and “besides” so that I can understand the structure.	1	2	3	4	5
38. I write down key words.	1	2	3	4	5
39. I try to distinguish between factual sentences and the writer’s subjective opinions in the text.	1	2	3	4	5
40. I try to figure out the main idea of each paragraph.	1	2	3	4	5
41. I try to distinguish between the main idea and the supporting details in the text.	1	2	3	4	5
42. I pay attention to indirectly stated ideas and try to make inferences about them.	1	2	3	4	5
43. I read the comprehension questions first and then read the text.	1	2	3	4	5

After I read a text,

44. I summarize it in my own words.	1	2	3	4	5
45. After reading the text in detail, I evaluate the text and the writer’s viewpoint.	1	2	3	4	5

Thank you for answering the questionnaire.

Appendix B

Okuma Stratejileri Anketi

Bu anket İngilizce bir metni nasıl okuduğunuza dair bilgi edinmek için hazırlanmıştır. Anketten elde edilen bilgiler Okuma Stratejileri üzerine hazırlanan bir yüksek lisans tezinde kullanılacaktır.

Bir metni okurken ne kadar sıklıkla strateji kullandığınızı uygun numarayı işaretleyerek gösteriniz. 1 “hiçbir zaman” anlamındayken 5 “hemen her zaman” anlamına gelmektedir.

Hiçbir zaman	Nadiren	Bazen	Sık sık	Hemen her zaman
1	2	3	4	5

İfadeleri ne yapmanız gerektiğine göre değil, nasıl İngilizce okurken ne yaptığınızı düşünerek cevaplandırınız. Elde ettiğiniz puan ders notlarınızı hiçbir şekilde etkilemeyecek, ankete verdiğiniz cevaplar tamamen gizli tutulacaktır.

Bir metni okumadan önce,

	Hiçbir zaman	nadiren	bazen	Sık sık	Hemen her zaman
1. Metnin içeriğini tahmin etmek için konu başlığını kullanırım.	1	2	3	4	5
2. Ne çeşit bir metin olduğunu (gazete makalesi, bilimsel yazı, hikaye, vb.) göz önünde bulundururum.	1	2	3	4	5
3. Metni önce ana hatlarıyla okurum daha sonra geri döner detaylı bir şekilde okurum.	1	2	3	4	5
4. Metinde geçen tarih, isim, numara gibi belirli bilgileri bulmak için metnin hepsini okumadan gözden geçiririm.	1	2	3	4	5
5. Metinle beraber verilen grafiklere, resimlere ve diğer yardımcı öğelere dikkat ederim.	1	2	3	4	5
6. Metnin konusunu tahmin etmek için o konuyla ilgili geçmiş bilgi birikimimden yararlanırım.	1	2	3	4	5

Bir metni okurken,

	Hiçbir zaman	nadiren	bazen	Sık sık	Hemen her zaman
7. Cümlelerin içindeki sözcük grubu (phrase) ve yan cümlecik (clause) gibi parçalara dikkat ederim.	1	2	3	4	5
8. Her bir paragrafın başlangıç ve sonunu dikkatlice okurum.	1	2	3	4	5
9. Fiillerin zamanlarına dikkat ederim (geniş zaman, geçmiş zaman, vb.)	1	2	3	4	5
10. Metindeki her kelimenin anlamını kavramaya çalışırım.	1	2	3	4	5
11. Metindeki her cümleyi Türkçe'ye çeviririm.	1	2	3	4	5
12. Okumaya birinci paragraftan başlayıp metni sonuna kadar okurum.	1	2	3	4	5
13. Cümle yapılarına (özne, nesne, vb.) dikkat ederim.	1	2	3	4	5
14. Okurken zorluk yaşasam da okumaya devam ederim.	1	2	3	4	5
15. Okuma hızımı, metnin zorluk derecesine göre değiştiririm.	1	2	3	4	5
16. Metnin zor bölümlerini yüksek sesle okurum.	1	2	3	4	5
17. Metnin içindeki bilmediğim kelimeleri atlarım.	1	2	3	4	5
18. Metnin içeriği ve o konuyla ilgili önceden bildiklerim arasında bağlantı kurarım.	1	2	3	4	5
19. Bilmediğim bir kelimenin anlamını kelimeyi parçalarına bölerek anlamaya çalışırım. (un-forget-able)	1	2	3	4	5
20. Bir sözcük ya da sözcük grubunu (phrase) anlamadığım zaman, metindeki ipuçlarını kullanarak anlamını tahmin ederim.	1	2	3	4	5
21. Bir sözcük ya da sözcük grubunu (phrase) anlamadığım zaman, metnin konusuyla ilgili bilgilerimi kullanarak anlamını tahmin ederim.	1	2	3	4	5
22. Her bir zamirin (pronoun) neyi kastettiğini kontrol ederim.	1	2	3	4	5
23. Önemli yerlerin altını çizerim.	1	2	3	4	5
24. Önemli yerleri renkli kalem kullanarak ya da yanına yıldız çizerek işaretlerim	1	2	3	4	5
25. Metnin zor bölümlerini birkaç kere gözden geçiririm.	1	2	3	4	5
26. Bütün metni sesli bir şekilde okurum.	1	2	3	4	5
27. Metinde anlatılanları kafamda canlandırmaya çalışırım.	1	2	3	4	5
28. Metni Türkçe'ye çevirmeden anlamaya çalışırım.	1	2	3	4	5
29. Anlamakta zorluk çekersem önceki cümlelere dönerim.	1	2	3	4	5

	Hiçbir zaman	nadiren	bazen	Sık sık	Hemen her zaman
30. Metni okurken anlatılanlar arasında bağlantı kurmaya çalışırım.	1	2	3	4	5
31. Metni okurken metinle ya da anladıklarım ile ilgili kendime sorular sorarım.	1	2	3	4	5
32. Okumakta olduğum satırı parmağım ile ya da kalemimle takip ederim.	1	2	3	4	5
33. Bir cümleyi gramer kurallarına göre ayırmak için çizgiler (/) çizerim.	1	2	3	4	5
34. İçindeki bütün kelimeleri anlamama rağmen bir cümleyi anlamadıysam, o cümleyi atlarım.	1	2	3	4	5
35. Metinde daha sonra neler anlatılacağını tahmin ederim.	1	2	3	4	5
36. Metni okudukça yaptığım tahminlerin, çıkarımların doğru olup olmadığını kontrol ederim.	1	2	3	4	5
37. “Buna rağmen” ve “bunun yanında” gibi bağlaçlara dikkat ederim, böylece cümlenin yapısını anlayabilirim.	1	2	3	4	5
38. Anahtar kelimeleri yazarım.	1	2	3	4	5
39. Metinde geçen nesnel cümlelerle, yazarın kendi düşüncelerini anlatmak için kullandığı öznel yargıları birbirinden ayırmaya çalışırım.	1	2	3	4	5
40. Metindeki her bir paragrafın ana fikrini çıkarmaya çalışırım.	1	2	3	4	5
41. Metindeki ana fikri ve onu desteklemek için verilen detayları birbirinden ayırmaya çalışırım.	1	2	3	4	5
42. Metinde dolaylı olarak anlatılan fikirlere dikkat eder ve ne anlama geldikleriyle ilgili çıkarımlarda bulunmaya çalışırım.	1	2	3	4	5
43. Önce soruları okuyup sonra metni okurum.	1	2	3	4	5

Metni okuduktan sonra,

44. Metni kendi cümlelerimle özetlerim.	1	2	3	4	5
45. Metni detaylı şekilde okuduktan sonra metni ve yazarın bakış açısını değerlendiririm.	1	2	3	4	5

Anketi cevapladığınız için teşekkür ederim.

Appendix C

Sample of Lesson Plans

STRATEGIES ON THE WAY OF EFFECTIVE READING

USING BACKGROUND KNOWLEDGE FOR PREDICTION

SKIMMING

FINDING KEY WORDS (SEMANTIC MAPPING)

SUMMARIZING

A. PREPARATION

1. Do you think your background knowledge can help you to read better? In what way?
2. Do you underline the key words while reading? Why/why not? In what readings can this strategy be helpful?
3. Do you have a look at the text quickly before you start reading in detail? What is the purpose of skimming the text before reading? What parts of the text do you think you should focus on during skimming?
4. Do you make a map or a diagram of the text while reading? Is it a good idea to make a map of the text?
5. Have you ever tried to summarize the text by using your own words after you finish reading? How may this strategy help you in reading?

B. PRESENTATION

1. USING BACKGROUND KNOWLEDGE TO PREDICT THE CONTENT

Before you start reading a text, you can recall your knowledge about the topic because the things you already know or remember can help you to comprehend the text easier. While predicting, you can also take some notes so that you can compare them with the text later on. You can also make a map of your thoughts by using your notes to read and after you read the text, you can confirm or disconfirm your predictions.

Example:

- * Have a look at the map which is created for a text called “Sharks” (Heimlich & Pittelman, 1986, p. 32).
- * Think that you are going to read a text about “Special Effects”. Make a similar map with the teacher by using your background knowledge.

2. SKIMMING

Before you start reading for details, you can have a quick look at the text to understand what it is about in general. While you are skimming the text, you should focus on the main idea, which can be given in the first and the last paragraphs, or at the beginnings and endings of each paragraph.

Example:

Skim the following paragraph (by focusing on the first and the last sentences, and key words) and answer the questions.

Which is the oldest living tree in the world? Is it the tall redwood tree called giant sequoia? Botanists say it is 4000 years old. How about the Wollemi Pine? The Wollemi Pine is only a few million years old. The answer is the Nightcap Oak. This oldest tree is 90 million years old. It is still alive in the Hightcap Range rainforest, 650 km away from Sydney, Australia, after so many centuries. The Nightcap Oak is a rainforest tree with dark green leaves, small nuts and small white flowers. It is a living fossil but it looks like any other tree.

(taken from Gülsen & Tolungaç, 2004, p. 68)

1. This paragraph is mainly about
2. The paragraph can be taken from
3. The writer’s purpose in this paragraph is

3. FINDING KEY WORDS (SEMANTIC MAPPING)

While you are reading a text, you can underline the important sections and write down the key words, perhaps in the form of a map or a diagram. You can add the general ideas and the important points in your map. By this way, you can

comprehend the text better and summarize it easily by using your notes. You can also do this activity before and after reading the text to compare your predictions with what you learn from the text.

Example: Look at the map of “Sharks” which has been developed while reading (Heimlich & Pittelman, 1986, p. 33). Compare these two maps.

4. SUMMARIZING

After you finish reading a text, summarize the text with your own words briefly.

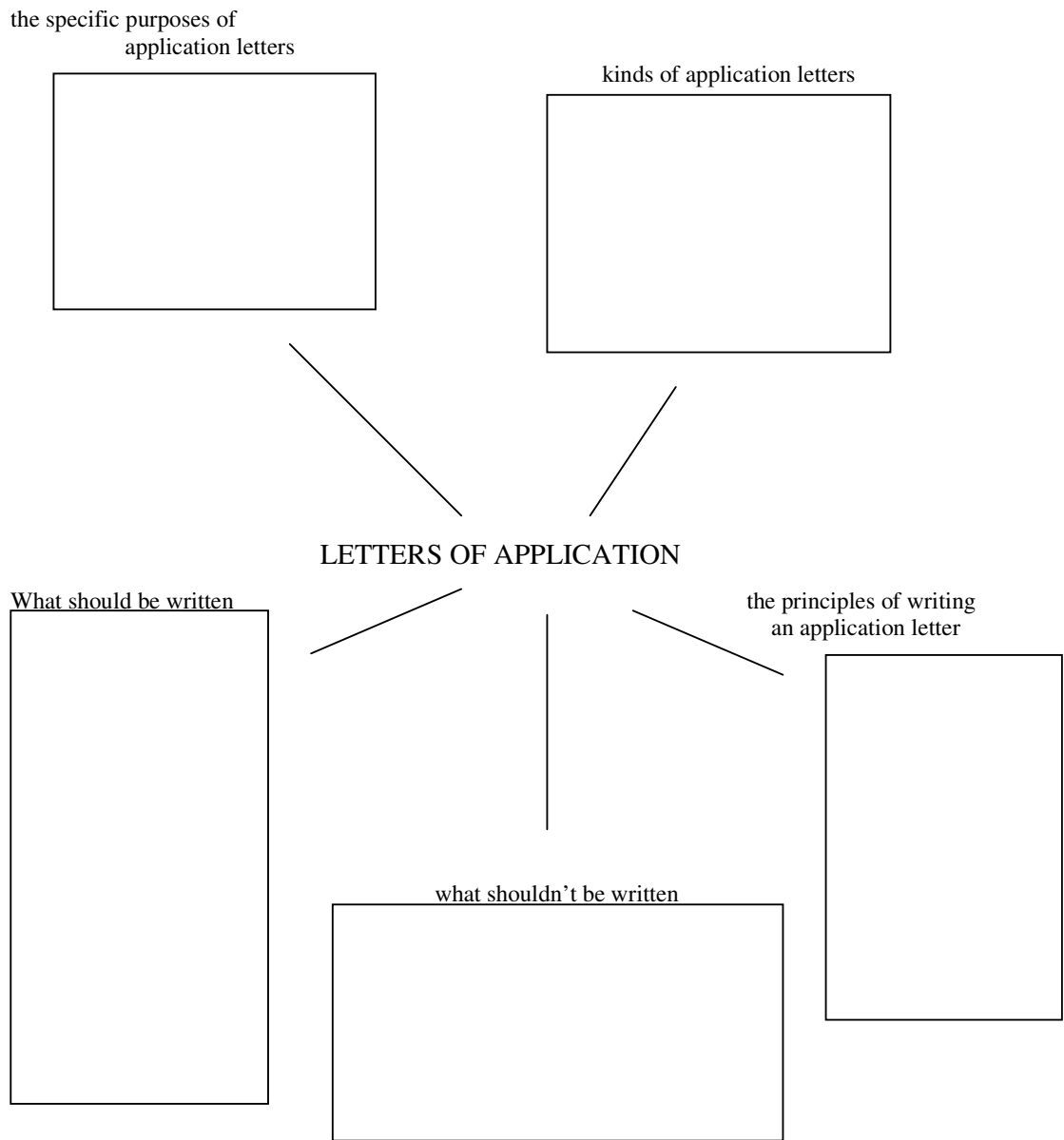
While you are summarizing the text, use the key words and main ideas in the text that you have underlined before. Summarizing can help you to better comprehend the text and remember it better.

C. PRACTICE

1. PRE-READING QUESTIONS

1. Have you ever written an application letter before? If yes, how did you organize your letter? What information should be included into an application letter to be effective?
2. What advice can you give to a person who is writing an application letter?
3. Work in pairs. Try to predict the content of the text and complete the following map by using your background knowledge about application letters.

SEMANTIC MAPPING



4. Skim the text very quickly. Which of your predictions can you confirm?

2. WHILE READING

1. Read the whole text and underline all the important information.
2. Work in pairs. Create a map of the text and write down the key words that you have underlined.
 - *Compare your map with the one you wrote down before reading the text.
 - *Are there any differences in your notes?
 - *What have you learned from the text?
3. Vote for the best plot map. 😊

3. AFTER READING

1. What other advice can you give to someone who is trying to write an effective application letter?
2. Work in pairs. Use the map to summarize the text in your own words. You can also include your suggestions in your summary.

D. EVALUATION

1. Do you think using your background knowledge facilitated your reading process?
In what way?
2. What is the use of creating a map of a text?
3. What other strategies did you use to read in detail?
4. Complete chart below considering all the reading strategies you used to help yourself reading this text.

READING STRATEGIES		
Strategy	Why is this strategy useful?	When is this strategy useful?
1.		
2.		
3.		
4.		

(adapted from Chamot et al., 1999, p. 65)

E. EXPANSION

1. In what other readings do you try to activate your background knowledge to comprehend the texts?
2. In what way can you use the strategy of note-taking and mapping in your future education in your faculties?

Appendix D

Sesli Düşünme Metodu Uygulaması Örneği

Öğrencinin Sesli Düşünceleri	Kodu
1 “ <i>Tourists in a Fragile Land</i> ” [Resimde dağ var. Dağa gitmiş turistler var herhalde. Kızaklar falan var. Oradan bir yere gidiyorlar herhalde.]	PC PCT
“ <i>As a scientist working in Antarctica, I spent most of my time in the lab studying ice. I am trying to find the age of Antarctic ice.</i> ”	
5 [Antarktika’da çalışan bir bilim adamıymış. Birçok zamanını buzlar üzerinde laboratuarda harcıyormuş ... Antarktika’daki buzların yaşını bulmayı denemiş.] “ <i>All we know for certain is that it is the oldest ice in the world.</i> ” [Biz biliyoruz ki dünyadaki en yaşlı buzullar Antarktika’daymış.] “ <i>The more we understand it, the more we will</i>	RS T
<i>10 understand the changing weather of the Earth.</i> ” ... [Anlayacağımızdan çok dünyanın havası değişiyor demiş.] “ <i>Today as with an increasing number of days I had to leave my work to greet a group of tourists who were taking a vacation in this continent of ice.</i> ” [Bugün] “ <i>increasing... increasing number of days</i> ” [Günlerin bazıları gibi] (metinde	RS T GW
15 kelimelerin altını çiziyor) “ <i>I had to leave my work to greet a group of tourists</i> ” [Bazı günlerde, anladığım kadarıyla, işinden ayrılıp bir grup turist] “ <i>who were taking a vacation in this continent of ice</i> ” [Turist demiş. (metinde kelimelerin altını çiziyor) Turistler merak ettikleri için oraya gitmek isterler herhalde.] “ <i>tourists who were taking a vacation</i> ”	UN/RR RS/MC RR FW/UN DI/RR
20 [Buzullarla ilgili olan turistleri götürüyor] “ <i>And although</i> ” [buna rağmen] (Kelimenin altını çiziyor) “ <i>I can appreciate their desire to</i>	RS/T UN

	<i>experience this beautiful landscape, I feel Antarctica should be closed to tourists.” ... “I feel Antarctica should be closed to tourists”</i>	RR
	[Antarktika'nın turistlere kapalı olması gerekiyor. Burdan] (Kelimenin	T/UN
25	altını çiziyor) ... <i>“who were taking a vacation”</i> ... [O zaman turistlere kapalı olması gerekiyorsa buzullara zarar vermeyen turistlerle	RR
	gidiyormuş] <i>“And although”</i> [Buna rağmen] <i>“I can appreciate their desire to experience this beautiful landscape”</i> [Bu güzel] <i>“landscape”</i>	DI
	[Buzullardan bahsediyor herhalde] <i>“I can appreciate their desire to</i>	T/RR
	<i>experience this beautiful landscape”</i> [Buna rağmen onların] <i>“desire”</i>	T/FW
30	(Kelimenin altını çiziyor) [bu güzelliği kaçırmamasını istiyor herhalde. Ama her şeye rağmen turistlere kapalı olmasını istiyormuş.]	P/RR
	<i>“Antarctica is the center of important scientific research”</i> [Antarktika önemli bir merkez bilimsel araştırmalar için] <i>“and it must be preserved</i>	FW
	<i>for this purpose”</i> [O bunun için adanmış olmak zorunda diyor. Gerçi	UN/RS
35	<i>“preserved”</i> ün anlamını bilmiyorum ama. Bilimsel dediği için onun için kullanılması gerekiyor demiştir.] <i>“Meteorologists are now looking at the effects of the ozone hole that was discovered above Antarctica in 1984.”</i> [Meteorolojiyle uğraşan bilim adamları ozondaki boşlukları] ...	T
	<i>“effect”</i> ... [ozondaki boşlukları] <i>“above Antarctica in 1984”</i> ...	RS
40	<i>“looking at the effects of the ozone hole”</i> [Ozondaki boşlukların hareketlerinin neler olduğuna bakıyorlar herhalde] <i>“effect”</i> (Kelimenin altını çiziyor) [Ozondaki boşluktan] <i>“that was discovered above Antarctica in 1984”</i> [Antarktika'nın global ısınmadan etkilenen	MC
	yerlerden olduğunu biliyordum. Ozon tabakası. Ozondaki boşluğun]	GW
45		FW
		RR
		RS/FW
		UN
		RR
		UB

<p>“above Antarctica” ... “They are trying to understand global warming.” [Onlar global ısınma üstüne çalışıyorlarmış. Evet, bu</p>	<p>RS</p>
<p>Antarktika’ya zarar veriyordu buzullar da her geçen gün eriyor.] “If the Earth’s temperature continues to increase, the health and safety of</p>	<p>UB</p>
<p>50 every living thing on the planet will be affected.” [Global ısınma devam ederse] “increase” (Kelimenin altını çiziyor) [yükselmeye</p>	<p>RS FW/UN</p>
<p>devam ederse] “increase”... “ the health and safety of living things on the planet will be affected” [Sağlığımız güvenliğimiz dünyadaki</p>	<p>T/FW RR/RS</p>
<p>yaşanacak şeyler tamamen kaybolacak.] “Astronomers have a unique view of space and are able to see it very clearly from Antarctica.”</p>	<p></p>
<p>“astronomers have a unique view of space”... “unique view of space” (Kelimenin altını çiziyor) [Astronomlar o boşluğu en çok ya da açıkça</p>	<p>RR UN/RS</p>
<p>Antarktika’ya zarar verdiğini görebiliyorlar demiş ama tam anlayamadım orayı] “unique view of space and are able to see it very</p>	<p>MC/RR</p>
<p>60 clearly from Antarctica” [Herhalde “have” dediğine göre bir düşünceleri var bu konu hakkında] “and are able to see it very</p>	<p>P RR</p>
<p>clearly” [Bu boşluğun Antarktika’ya zarar verdiğini anlatıyor] “Biologists have a chance to learn more about the animals that inhabit</p>	<p>RS</p>
<p>the frozen land.” [Biolojistlerin bunu öğrenmek için bir şansları var. Hayvanların alışkın olmadıkları] “frozen land” (Kelimenin altını</p>	<p>T FW/UN</p>
<p>çiziyor) [Oradaki hayvanlar soğuğa alışkın olmadıkları şey de soğuk olmamasıdır. Global ısınmanın verdiği zararlardan birini anlatmaya</p>	<p>DI RS</p>
<p>çalışmış]</p>	<p></p>

Appendix E

Sample Sequence from Think-Aloud Protocols

Student's Verbal Response	Code
<p>1 <i>"Tourists in a Fragile Land"</i> [There is a mountain in the picture. I guess there are tourists who go to the mountain. I guess they are going somewhere from there.] <i>"As a scientist working in Antarctica, I spent most of my time in the lab studying ice. I am trying to find the age of</i></p> <p>5 <i>Antarctic ice."</i> [He is a scientist working in Antarctica. He is spending most of his time on the ice in the laboratory. He has tried to find the age of the ice in Antarctica.] <i>"All we know for certain is that it is the oldest ice in the world."</i> [Biz biliyoruz ki dünyadaki en yaşlı buzullar Antarktika'daymış.] <i>"The more we understand it, the more we will</i></p> <p>10 <i>understand the changing weather of the Earth."</i> ... [He says the weather of the world changes more than we understand.] <i>"Today as with an increasing number of days, I had to leave my work to greet a group of tourists who were taking a vocation in this continent of ice."</i> [Bugün] <i>"increasing... increasing number of days"</i> [Something</p> <p>15 like some of the days] (underlines the words in the text) <i>"I had to leave my work to greet a group of tourists"</i> [On some of the days, as far as I understand, after he leaves his work, a group of tourist] <i>"who were taking a vocation in this continent of ice"</i> [He says tourist. (underlines the words) I guess tourists want to go there because they</p> <p>20 wonder.] <i>"tourists who were taking a vocation"</i> [He takes the tourists who are interested in ice.] <i>"And although"</i> [Buna rağmen] (underlines</p>	<p>PC</p> <p>PCT</p> <p>RS</p> <p>T</p> <p>RS</p> <p>T</p> <p>GW/UN</p> <p>RR/MC</p> <p>RS</p> <p>RR</p> <p>UN/DI</p> <p>RR/RS</p> <p>T/UN</p>

the words) “ <i>I can appreciate their desire to experience this beautiful</i>	RR
<i>landscape, I feel Antarctica should be closed to tourists.</i> ” “ <i>I feel</i>	T
<i>Antarctica should be closed to tourists</i> ” [Antarctica’nın turistlere	UN
25 kapalı olması gerekiyor. From there] (underlines the words) “ <i>who were</i>	RR/DI
<i>taking a vocation</i> ” [Then if it must be closed to tourists, he is going	T
with the ones who don’t destroy ice.] “ <i>And although</i> ” [Buna rağmen]	RR
“ <i>I can appreciate their desire to experience this beautiful landscape.</i> ”	T/FW/P
[Bu güzel] “ <i>landscape</i> ” [I guess he is telling about the ice.] “ <i>I can</i>	RR
30 <i>appreciate their desire to experience this beautiful landscape</i> ”	FW/UN
[Despite this, they] “ <i>desire</i> ” (underlines the word) [He doesn’t want	RS
them to miss this beauty I guess. But despite everything, he wants it to	
be closed to tourists.] “ <i>Antarctica is the center of important scientific</i>	T
<i>research.</i> ” [Antarktika önemli bir merkez bilimsel araştırmalar için.]	RS
35 “ <i>and it must be preserved for this purpose</i> ” [he says that it must be	MC
dedicated for this. Although I don’t know the meaning of “ <i>preserved</i> ”	GW
because he says scientific, he must say it should be used for it.]	
“ <i>Meteorologists are now looking at the effects of the ozone hole that</i>	
<i>was discovered above Antarctica in 1984.</i> ” [The scientists dealing with	
40 meteorology, the holes in the ozone] ... “ <i>effect</i> ” ... [the holes in the	FW
ozone] “ <i>above Antarctica in 1984</i> ” ... “ <i>looking at the effects of the</i>	RR
<i>ozone hole</i> ” [They are looking at the movements of the holes on the	RS
ozone.] “ <i>effect</i> ” (underlines the word) [From the hole on the ozone]	FW/UN
“ <i>that was discovered above Antarctica in 1984</i> ” [Antarctica is one of	RR
45 the places which is affected from global warming. Ozone layer.	UB

<p>The hole in the ozone] “above Antarctica” ... “They are trying to understand global warming.” [They are working on global warming</p>	RS
<p>Yes, this destroys Antarctica and the ice there melts everyday.] “If the Earth’s temperature continues to increase, the health and safety of</p>	UB
<p>50 every living thing on the planet will be affected.” [If global warming continues] “increase” (underlines the word) [yükselmeye devam</p>	RS FW/UN
<p>ederse] “increase”... “the health and safety of living things on the planet will be affected.” [Our health, safety, the living things in the</p>	T/FW RR/RS
<p>world will all disappear.] “Astronomers have a unique view of space and are able to see it very clearly from Antarctica.” “Astronomers</p>	RR
<p>have a unique view of space”... “unique view of space” (underlines the word) [He says astronomers can see that this hole mostly or clearly</p>	UN RS
<p>destroy Antarctica but I couldn’t understand this part very well.] “unique view of space and are able to see it very clearly from</p>	MC RR
<p>60 Antarctica” [I guess because he says “have”, they have an idea about this subject] “and are able to see it very clearly” [He tells that this</p>	P RR/RS
<p>hole destroys Antarctica.] “Biologists have a chance to learn more about the animals that inhabit the frozen land.” [Biolojistlerin</p>	T
<p>bunu öğrenmek için bir şansları var. The thing that animals are not used to] “frozen land” (underlines the words) [The animals there must</p>	FW/UN
<p>65 be used to the cold weather. The thing that they are not used to is not having cold weather. He tries to tell one of the damages that global</p>	DI RS
<p>warming give.]</p>	

Appendix F

Coding Scheme for Think-Aloud Protocols

Code	Strategy	Definition of the Strategy
PCT	Predicting the Content from the Title	The reader focuses on the title before reading the text and formulates hypotheses about the content.
PC	Relating the Picture to the Content	The reader examines the visual elements provided with the text and tries to predict the content.
RR	Rereading	The reader rereads the whole sentence or the portions of a sentence
UB	Using Background Knowledge	The reader recalls his prior knowledge about the topic to predict the content or guess the meaning of unknown words.
S	Skimming	The reader has a quick look at the text to get the gist.
SC	Scanning	The reader spots some specific information like numbers or dates.
CP	Confirming/Disconfirming Predictions	The reader confirms or refuses the predictions that he has made beforehand.
RS	Restatement	The reader restates what he understands from the sentence in his own words.
II	Integrating Information in the Text	The reader combines the new information with what he read in the previous sections of the text.

QI	Questioning Information in the Text	The reader formulates questions about the textual information.
PWN	Predicting What Will Come Next	The reader formulates hypotheses about the succeeding sections of the text.
MI	Finding the Main Idea	The reader finds the key points in a paragraph or in the whole text.
FW	Focusing on Individual Words	The reader tries to understand the meaning of individual words.
MC	Guessing the Meaning of an Unknown Word	The reader predicts the meaning of an unknown word by using the textual cues or his background knowledge.
SS	Skipping Sentences and Unknown Words	The reader skips the word or the whole sentence that he cannot understand.
UVI	Using Visual Imagery	The reader creates an image about the content in his mind.
T	Translating	The reader translates the sentence or phrase word by word into his native language.
DI	Drawing Inferences	The reader draws inferences or conclusions about the content.
RPI	Referring back to the Previous Information in the Text	The reader goes back and forth in the text to clear up the confusions occurring while reading.

AS	Analyzing Sentence Structures	The reader analyzes the grammatical structures of the sentence by focusing on the connectors, relative clauses, pronouns, etc.
MC	Monitoring Comprehension	The reader assesses his own understanding or the failure of comprehension.
SG	Summarizing the Gist	The reader summarizes the main idea of the text.
ET	Evaluating The Text	The reader evaluates the text and the writer's perspective.
UN	Underlining	The reader underlines the key words or the important sections in the text.

Appendix G

Sample of Students' Responses to the Follow-up Questions

R: What is the main idea of this text?

S: In general, it tells about the destruction of Antarctica.

R: What causes this destruction?

S: Mainly the tourists are seen as the reason for this. Tourists come there and destroy the animals and plants there. And it takes about 200 years for a plant to grow there. It is something important.

R: Then does the writer support tourism in Antarctica or is he against this idea?

S: He is certainly against tourism because tourists destroy this place.

R: Is there anything that differs Antarctica from the other countries in the world?

S: Yes.

R: What is this difference?

S: (scanning the text) I guess it supplies the 70 percent of the world's water. And the lack of government there causes tourists to behave however they want.

R: And according to scientists, if Antarctica is destroyed, can it affect the whole world?

S: It will affect the whole world... (scanning the text)... The ozone hole can expand. The sunlight comes to the Earth directly. And there can be a big flood in the world because of the ice melting in Antarctica.

R: And what kind of text is this?

S: There is a lot of scientific information in the text. The writer supports his ideas by giving examples from real events and describing his reasons. But there is

no counter argument. May be this was taken from a newspaper article.

R: As a reader, how do you evaluate this text?

S: This text is organized very well. It is very clear. It is easy to follow the ideas. I think the reasons for the things supported in this text are described very well.

Appendix H

Eđitim Sonrası Öğrenci Mülakatı Örneđi

- R: Sana bir süredir devam eden aldığınız eğitimle ilgili sadece birkaç soru sormak istiyorum. Fikirlerini benimle paylaşmayı kabul eder misin?
- S: Tabi ki hocam, elimden geldiğince yardımcı olmaya çalışırım.
- R: Çok teşekkür ederim. Nasıl gidiyor derslerin, üniversite hayatı alışabildin mi?
- S: Dersler fena değil işte. Kayseri'ye de alışmaya çalışıyorum hocam. Ama geldiğimden daha iyiyim.
- R: Sevindim. Zamanla alışıyorsunuz demek ki. Rahatsan ve hazırsan başlayalım mı?
- S: Olur.
- R: Pekala, dediğim gibi sana işlediğimiz derslerle ilgili sorular sormak istiyorum. Şöyle bir neler yaptığımızı hatırlamaya çalışıp sorularımı cevaplarsan sevinirim. Şimdi, önce öğrendiğimiz stratejilerle başlayalım. Üç haftalık bu eğitimde hangi stratejileri öğrenmiştik?
- S: En başta anahtar kelimeler vardı. Başka skimming vardı. Önce metnin kabaca bir üstünden geçip sonra detaylı okuma yani. Önce başlığa bakmayı öğrendik. Bir de scanning var, sorulara göz atıp ordaki anahtar kelimeleri bulma ve onları akılda tutarak scanning yapma var. Sonra kendi cümlelerimizle özet çıkarma vardı.
- R: Sana bunlardan hangisi daha yararlı geldi?
- S: En yararlı olanı bence key words. Bir de en önemlisi biz eskiden bütün cümleleri ve kelimeleri anlamaya çalışıyorduk. Şimdi artık daha çok anahtar kelimelerle

genel anlamına bakıyoruz. Bu çok önemli. İkincisi başlık. Başlığın ve resmin çok büyük önemi olduğunu düşünüyorum. Bir de önceden düşünüp kendi düşüncelerinin doğru olup olmadığını karşılaştırma, düşüncemizi doğrulamaya çalışma.

R: Peki bu derslerde metinleri kelime kelime mi inceledik yoksa genel olarak ne anlatıldığına mı odaklandık?

S: Genel anlamını anlamayı hedefliyorduk. Zaten main idea'lara ve key word'lere bakarak metnin tümünün anlamını anlayabiliyoruz.

R: Kullanmakta zorlandığın strateji oldu mu?

S: Zaten bizim işimizi kolaylaştırmak için öğrendik bunları ama... Zor gelen hangisi oldu? Aslında skimming zor olabilir. Eskiye göre kolay ama hala zor yanları var. Ama yine de bence hepsi okumamızı kolaylaştırdı.

R: Sence bu aldığımız strateji eğitimi faydalı oldu mu?

S: Tabi ki faydalı oldu. Normalde okurken teker teker gittiğim için elimde hep sözlük olurdu. Zaman olarak çok büyük kazanç oldu bize. Ve her şeyi anlamak zorunda olmadığımızı anladık. Sınavlarda da etkisini göreceğiz zaten umarım. Scanning skimming'in çok büyük yararı oldu. Key words'lerin çok büyük yararı oldu. Dediğim gibi eskiden kelimeleri teker teker anlamaya çalışıyorduk. Şimdi daha kolay.

R: Peki derslerin hep böyle, bu üç haftadaki gibi işlenmesini ister miydin?

S: Tabi ki isterdim. Normal bir reading dersindeki gibi okuyup geçmektense strateji ile okumak daha faydalı.

R: Sence süremiz yeterli oldu mu?

S: Daha önceden bilmediğimiz için oldu aslında. Ama sadece temel olabildi. Daha

öğrenecek çok şeyimiz var gibi geliyor bana.

R: Bu stratejilerin genel olarak okuma alışkanlıklarına bir etkisi oldu mu?

S: Bence oldu. Türkçe okumama bile oldu. Mesela Türkçe'de de uzun parçalar falan oluyordu. Şimdi artık o parçalara nasıl yaklaşmam gerektiğini biliyorum.

R: Bu stratejileri sen kendi başına herhangi bir metni okurken de kullanacak mısın?

S: Bence kullanabilirim. Ama biraz daha deneme yapmam lazım, öyle daha iyi olur gibi düşünüyorum.

Appendix I

Sample of Post-Treatment Interview

- R: I would like to ask you a few questions about the training you have received for a while. Would you like to share your ideas with me?
- S: Of course, I can help you as much as I can.
- R: Thank you very much. How are your lessons, have you got used to the university life?
- S: Lessons are quite good. I am trying to get used to Kayseri but I feel better than I first came here.
- R: I am happy to hear that. Then you are getting used to it in time. If you are relaxed and ready, shall we start?
- S: Okay.
- R: Okay, as I said, I would like to ask you a few questions about the lessons we had. I will be happy if you try to remember what we have done and answer my questions. Now, let's start with the strategies we have learned. What strategies did we learn in this 3-week training?
- S: First, there were key words. And there was skimming. I mean having a look at the text first and then reading in detail. We learned looking at the title first. And there was also scanning, finding the key words in the questions by having a look at them, and scanning the text keeping them in mind. And there was summarizing the text with our own words.
- R: Which of them are useful for you?
- S: I think the most useful one is the key words. And the most important thing is

we were trying to understand all the sentences and words before. Now, we mostly try to understand the overall meaning by using key words. The second one is title. I believe that title and pictures play an important role. And thinking before reading and confirming or disconfirming our thoughts, trying to confirm our thoughts.

R: In these lessons, did we examine the texts word by word or did we focus on what is being told in general?

S: We aimed at understanding the overall meaning. We are able to understand the whole text by looking at the main ideas and key words.

R: Were there any strategies that you found difficult to use?

S: In fact, we learned them to make our work easier but... What was difficult? Actually, skimming can be difficult. It is easier compared to the past but there are still difficulties. But nevertheless, I think, all of them have made our reading easier.

R: Do you think the strategy training you received was useful?

S: Of course, it was useful. Normally, because I was reading word by word, I always had a dictionary in my hand. It was a big gain for us in terms of time we spend. And we have understood that we don't have to understand everything. I hope, we will feel its effects in the exams, too. Skimming and scanning was very useful. Key words were very useful. As I said, we were trying to understand all words one by one in the past. Now it is easier.

R: Would you like to take the lessons in the way we provided for 3 weeks?

S: Of course, I would like to. Reading with strategies is more beneficial than just reading and skipping like we were doing in a normal reading lesson.

R: Do you think the time was enough?

S: In fact, because we hadn't known them before, it was enough. But it was just a basis. I believe that there are more we need to learn.

R: Have these strategies had an effect on your reading habits?

S: I think, they have. Even on my Turkish reading. For example, there were long texts in Turkish, too. Now, I know how to approach these texts.

R: Will you use these strategies when you are reading a text by yourself?

S: I think I can use. But I need to practice them more, I think it can be better that way.

Appendix J

The Classification of the Items in Reading Strategy Questionnaire

IN	Strategy	ST
Before Reading	1 Predicting the content from the title	T
	2 Considering the text type	T
	3 Skimming	T
	4 Scanning for specific information	T
	5 Paying attention to visual elements	T
	6 Using background knowledge for prediction	T
While Reading	7 Focusing on the phrases and clauses in sentences	Bt
	8 Focusing on the beginning and end of each paragraph	T
	9 Paying attention to the tense of the sentences	Bt
	10 Trying to understand the meaning of each word in the text	Bt
	11 Translating every sentence into Turkish	Bt
	12 Reading the whole text from the beginning to the end	Bt
	13 Focusing on the sentence structures	Bt
	14 Continuing reading even if difficulties occur	T
	15 Adjusting the rate of reading depending on the text difficulty	Bt
	16 Reading the difficult sections aloud	Bt
	17 Skipping unknown words	T
	18 Relating the background knowledge to the textual information	T
	19 Trying to understand the meaning of words by dividing into parts	Bt
	20 Guessing the meaning of unknown words by using the context	T
	21 Guessing words meanings by using the prior knowledge	T
	22 Understanding what each pronoun refers to	Bt
	23 Underlining important parts	T
	24 Marking important parts	T
	25 Rereading the difficult sections of the text	Bt
	26 Reading the whole text loudly	Bt
	27 Visualizing the text	T
	28 Trying to comprehend the text with translation	T
	29 Referring back to the previous sentences	T
	30 Integrating the information in the text	T
	31 Self Questioning	T
	32 Following the line in the text by pen or finger	Bt
	33 Dividing the sentence into parts by using slashes	Bt
	34 Skipping sentences that are not understood	T
	35 Predicting the subsequent information in the text	T
	36 Confirming or disconfirming predictions	T
	37 Focusing on the connectors	Bt
	38 Writing key words	T
	39 Distinguishing facts and opinions	T
	40 Finding the main idea of each single paragraph	T

Table continued on page 127

	41	Distinguishing the main idea and the supporting details	T
	42	Drawing inferences	T
	43	Focusing on comprehension questions before reading the text	T
After	44	Summarizing the text	T
Reading	45	Evaluating the text and the writer	T

Note. IN = Item number, ST = Strategy type, T = Top-down reading strategies,
 Bt = Bottom-up reading strategies

Appendix K

Informed Consent Form

Dear Students,

My name is Fevziye Kantarcı and I am a postgraduate student in MA TEFL program at Bilkent University. I am studying on reading strategies that you use while you are reading.

If you agree to participate in this study, you are going to be given a questionnaire. Then, your teacher will present you some of the reading strategies, and I will ask some of you to read a text and tell what you are doing in your reading process. And lastly, I will interview some of you personally.

Your answers to the questionnaire items and interview questions will not affect your grades. Your answers will be confidential and your names and your class will not be revealed in this study.

If you have any questions about the study or the results, you can contact me at [kantarcı@bilkent.edu.tr](mailto:kantarci@bilkent.edu.tr)

Thank you for your participation.

FEVZİYE KANTARCI

MA TEFL Program

Bilkent University/ANKARA

I have read and understood and agree to participate in the study.

Name/Surname:

Signature:

Appendix L

Onay Bilgi Formu

Sevgili Öğrenciler,

Adım Fevziye Kantarcı ve Bilkent Üniversitesi, MA TEFL programında yüksek lisans öğrencisiyim. Okurken kullandığınız stratejiler üzerine bir çalışma yapmaktayım.

Eğer bu çalışmaya katılmayı kabul ederseniz, sizlere bir anket verilecektir. Daha sonra, öğretmeniniz, size bazı okuma stratejilerini tanıtacak ve bazılarınızdan bir metni okumanızı ve okuma sürecinizde neler yaptığınızı anlatmanızı rica edeceğim. Ve son olarak, içinizden bazılarıyla karşılıklı görüşme yapılacağım. Yapılan çalışmalarda toplanan tüm bilgiler gizli tutulacak ve isminiz ya da sınıfınız hiçbir şekilde açıklanmayacaktır.

Anket maddelerine ve mülakat sorularına verdiğiniz cevaplar ders notlarınızı etkilemeyecektir. Cevaplarınız gizli tutulacak ve isimleriniz ya da sınıfınız çalışmada kullanılmayacaktır.

Eğer çalışmam ya da sonuçları ile ilgili herhangi bir sorunuz olursa, bana kantarci@bilkent.edu.tr adresinden her zaman ulaşabilirsiniz.

Katılımınız için teşekkür ederim.

FEVZİYE KANTARCI

MA TEFL Programı

Bilkent Üniversitesi/ANKARA

Yukarıda yazılanları okudum, anladım ve bu çalışmada yer almayı kabul ediyorum.

İsim/Soyad:

İmza: