

*To the memory of my beloved uncle*  
Mehmet Bar

A CLOSER LOOK AT PRONUNCIATION LEARNING STRATEGIES, L2  
PRONUNCIATION PROFICIENCY AND SECONDARY VARIABLES  
INFLUENCING PRONUNCIATION ABILITY

The Graduate School of Education  
of  
Bilkent University

by

GÜLÇİN BERKİL

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

June 2008

BILKENT UNIVERSITY  
GRADUATE SCHOOL OF EDUCATION  
MA THESIS EXAMINATION RESULT FORM

June 26, 2008

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

Gülçin Berkil

has read the thesis of the student.

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

Thesis Title : A Closer Look at Pronunciation Learning Strategies, L2  
Pronunciation Proficiency and Secondary Variables  
Influencing Pronunciation Ability

Thesis Advisor : Asst. Prof. Dr. JoDee Walters  
Bilkent University, MA TEFL Program

Committee Members : Asst. Prof. Dr. Julie Mathews-Aydınlı  
Bilkent University, MA TEFL Program

Prof. Dr. Mehmet Demirezen  
Hacettepe University, Faculty of Education  
Department of Foreign Languages Teaching  
Divison of English Language Teaching



## ABSTRACT

A CLOSER LOOK AT PRONUNCIATION LEARNING STRATEGIES, L2  
PRONUNCIATION PROFICIENCY AND SECONDARY VARIABLES  
INFLUENCING PRONUNCIATION ABILITY

Gülçin Berkil

M.A. Department of Teaching English as a Foreign Language

Supervisor: Asst. Prof. Dr. JoDee Walters

June 2008

It is becoming increasingly difficult to ignore the influence of the use of learning strategies on second language proficiency. So far, however, there has been little discussion about the relationship between second language pronunciation proficiency and pronunciation learning strategy use. In addition, no research has been found that surveyed the relationship between pronunciation ability and the particular pronunciation learning strategy use.

The main objectives of this study were to a) give a detailed picture of the pronunciation learning strategy use of Turkish university students learning English; b) examine the relationship between pronunciation learning strategy use and pronunciation ability; c) look for patterns of variation in the use of each strategy by pronunciation proficiency level; d) investigate the relationship between pronunciation ability and several variables, including self-perception of

pronunciation ability, perceived importance of pronunciation, gender, out-of-class exposure to English, length of English study and age at beginning of English study; and e) examine how some of these variables (self-perception of pronunciation ability, perceived importance of pronunciation, gender and out-of-class exposure to English) may relate to pronunciation learning strategy use.

The study gathered data from 40 students of the English Language and Literature Department at Dumlupınar University (DPU) in Kütahya, Turkey. The data concerning pronunciation learning strategy use were collected through a Strategy Inventory for Learning Pronunciation (SILP). Learners' pronunciation abilities were assessed via two pronunciation elicitation tasks, read-alouds and extemporaneous conversations. The data collected were analyzed using descriptive and inferential statistics, one-way analyses of variances (ANOVAs), Pearson chi-square tests and independent samples t-tests.

Statistical analyses of the quantitative data revealed that there was no significant relationship between pronunciation learning strategy use and pronunciation ability. The analyses at the individual strategy item level showed that only three of the 52 SILP items varied significantly or near-significantly by pronunciation proficiency level. The remaining 49 items of non-significant variation were categorized according to the mean frequency of use on a three-point scale to show their relative popularity in spite of their having no effect in distinguishing proficient pronouncers from less-proficient ones (bedrock strategies). While no relationship was observed between pronunciation ability and four of the secondary variables, two remaining variables, length of English study and age at beginning of English study, varied significantly among the pronunciation ability groups. In investigating the relationship

between pronunciation learning strategy use and some of the secondary variables (self-perception of pronunciation ability, perceived importance of pronunciation, gender and out-of-class exposure to English), it was seen that strategy use varied significantly only by gender.

This study suggested the use of all strategy items of either significant or non-significant variation, or that are used popularly by high proficiency learners, based on the rationale that some strategies may contribute to more proficient pronunciation even though they are ineffective in improving the pronunciation abilities of less-proficient ones. Further, the use of all types of pronunciation learning strategies in concert with one another may increase their effectiveness upon learners' second language pronunciation ability.

Key words: pronunciation ability, learning strategies, secondary variables

## ÖZET

TELAFFUZ ÖĞRENME STRATEJİLERİNE, İKİNCİ DİL TELAFFUZ  
YETERLİLİĞİNE VE TELAFFUZ BECERİSİNİ ETKİLEYEN İKİNCİL  
DEĞİŞKENLERE YAKINDAN BİR BAKIŞ

Gülçin Berkil

Yüksek Lisans, Yabancı Dil Olarak İngilizce Öğretimi Bölümü

Tez Yöneticisi: Yrd. Doç. Dr. JoDee Walters

Haziran 2008

Öğrenme stratejileri kullanımının ikinci dil yeterliliği üzerindeki etkisini göz ardı etmek giderek imkânsızlaşmaktadır. Ne var ki, şimdiye kadar, ikinci dil telaffuz yeterliliği ve telaffuz öğrenme strateji kullanımı arasındaki ilişki pek tartışılmamıştır. Ayrıca, telaffuz yeteneğiyle her bir telaffuz öğrenme stratejisinin kullanımı arasındaki ilişkiyi inceleyen bir araştırma bulunmamaktadır.

Bu çalışmanın temel amaçları a) İngilizce öğrenen Türk üniversite öğrencilerinin telaffuz öğrenme stratejisi kullanımlarına yönelik detaylı bir tablo sunmak b) telaffuz öğrenme stratejisi kullanımı ile telaffuz yeteneği arasındaki ilişkiyi incelemek c) her bir telaffuz öğrenme stratejisinin kullanımında telaffuz yeterliliği seviyesine göre değişkenlik örneklerine bakmak d) telaffuz yeteneği ile telaffuz yeteneği benlik algısı, telaffuzun algılanan önemi, cinsiyet, sınıf dışı İngilizce etkileşimi, İngilizce



öğrenme süresi ve İngilizce öğrenmeye başlama yaşı arasındaki ilişkiyi araştırmak ve e) bu değişkenlerden bazılarının (telaffuz yeteneği benlik algısı, telaffuzun algılanan önemi, cinsiyet ve sınıf dışı İngilizce etkileşimi) telaffuz öğrenme stratejisi kullanımı ile nasıl ilişkili olabileceğini incelemektir.

Çalışma verileri Kütahya Dumlupınar Üniversitesi (DPU) İngiliz Dili ve Edebiyatı Bölümü'ndeki 40 öğrenciden elde edilmiştir. Telaffuz öğrenme stratejisine ilişkin veriler, bir Telaffuz Öğrenme Stratejisi Envanteri kullanılarak toplanmıştır. Öğrencilerin telaffuz yetenekleri, iki telaffuz söyletim aktivitesi yoluyla değerlendirilmiştir. Bunlar, sesli okuma ve hazırlıksız konuşmadır. Elde edilen veriler, betimsel ve yorumsal istatistik (tek yönlü varyans analizleri (ANOVA), Pearson ki-kare testi ve bağımsız örneklem t-testleri) kullanılarak analiz edilmiştir.

Nicel verilerin istatistiksel analizleri sonucunda, telaffuz öğrenme stratejisi kullanımı ile telaffuz yeteneği arasında anlamlı bir ilişki bulunamamıştır. Her bir strateji maddesi düzeyindeki analizler sonucunda, Telaffuz Öğrenme Strateji Envanteri'ndeki 52 maddeden sadece 3 tanesinin telaffuz yeterliliği seviyesine göre önemli ya da önemliye yakın derecede değişkenlik gösterdiği ortaya konmuştur. Geriye kalan telaffuz yeterliliği seviyesine göre değişkenlik göstermeyen 49 madde, başarılı telaffuzcuları başarısız olanlardan ayırt etmede etkili olmasalar da öğrencilerce ne kadar popüler olduklarını göstermek amacıyla üç dereceli ölçekteki ortalama kullanım sıklıklarına göre sınıflandırılmışlardır (öğrenmenin temelinde yatan stratejiler). Telaffuz yeteneği ve çalışmanın ikincil değişkenlerinden dört tanesi arasında herhangi bir ilişki gözlemlenmezken, sadece geriye kalan iki değişken, İngilizce öğrenme süresi ve İngilizce öğrenmeye başlama yaşı, dil yeteneği grupları arasında önemli derecede değişkenlik göstermiştir. Telaffuz öğrenme stratejisi

kullanımı ve söz konusu ikincil deęişkenler arasında ilişki araştırıldığında (telaffuz yeteneęi benlik algısı, telaffuzun algılanan önemi, cinsiyet ve sınıf dıőı İngilizce etkileşimi), stratejisi kullanımının sadece cinsiyete göre deęişkenlik gösterdiği görülmüőtür.

Bu çalışma, bazı strateji maddelerinin başarısız öğrencilerin telaffuz becerilerini geliőtirmekte etkisiz olmasına karşın sadece daha başarılı öğrencilere katkıda bulunabileceęi gerekçesine dayanarak envanterde sunulan öğrenme stratejilerinin telaffuz düzeyine göre deęişkenlik gösterip ve göstermemesine, ya da sadece başarılı öğrenciler tarafından tercih edilip edilmemesine bakılmaksızın, tüm strateji maddelerinin kullanımını önermektedir. Telaffuz öğrenme stratejilerinin bir bütünlük içerisinde kullanımı, onların öğrencilerin ikinci dil telaffuz yeteneęi üzerindeki etkililięini artırabilir.

Anahtar sözcükler: telaffuz yeteneęi, öğrenme stratejileri, ikincil deęişkenler

## ACKNOWLEDGEMENTS

Writing a thesis was an enjoyable but admittedly a demanding journey for me. Throughout this way to success, I had a number of people beside me whose encouragement and assistance I would not ignore. First and foremost, I would like to express my thanks and deepest gratitude to my thesis advisor, Dr. JoDee Walters, who has been much more than merely a good academic consultant. Her ongoing support, patience and expert guidance right from the very beginning of this thesis study has been invaluable. Without her perfectionism and critical thinking, I would not have been able to create such a work. She always gave her backing to my thesis and me. I express my thanks once again to JoDee Walters whose teaching ideas and principles will always be reflected in my own teaching.

For the faith she showed and for her continued encouragement and support, I would like to thank Dr. Julie Mathews-Aydınlı. Her smiling face, endless positive look at the things and professional expertise helped me to survive in this demanding program.

I owe much to my sister, Fatma Berkil, for her help, support and encouragement and always being beside me for all my life not necessarily for this project. If it had not been for her invaluable comments, criticism and questions in my life and my studies, I would not have been able to cope with the hardest situations of my life.

I would also thank Emre Erol whose help and encouragement always kept me strong and persistent in my efforts during this challenging year. Thank you Emre for your endless patience and understanding for me since all our school years!

I would like to express my special thanks to my colleague at the Foreign Languages Department of DPU, Nesrin Bölük for her encouragement and friendship. She made an invaluable contribution in the data collection phase of this study.

I must also recognize and thank the students of English Language and Literature Department of DPU who acted as participants and thus had a very special role in the process. They took part in the data collection procedures patiently.

My warm thanks are due to my friends and colleagues in the MA TEFL class of 2008 for the sincere class atmosphere. We suffered happily all together!

I would like to express my sincere thanks to Dr. Gamze Özdemir Öncül for her friendship and faith in me and boosting my self-esteem when I seem like losing it.

My special thanks go to Prof. Dr. Mehmet Demirezen for his professional friendship and academic expertise.

Troy Headrick, Bernard Pfister, Lance Berry, Ray Wiggin, Lauren Biga and Tara Gallagher deserve a note of thanks for their invaluable help with the pronunciation assessment stage.

Finally, I am indebted to my parents, Hafize and Hüseyin Berkil, who, as always, have given their support and endless love throughout. They gave me the most special thing of my life, my education. They are the true possessors of my success.

## TABLE OF CONTENTS

|  |      |
|--|------|
| ABSTRACT .....   | iii  |
| ÖZET .....   | vi   |
| ACKNOWLEDGEMENTS .....   | ix   |
| TABLE OF CONTENTS .....  | xi   |
| LIST OF TABLES .....   | xv   |
| LIST OF FIGURES .....  | xvii |
| CHAPTER I: INTRODUCTION .....  | 1    |
| Introduction .....   | 1    |
| Key Terms .....  | 2    |
| Background of the study .....  | 3    |
| Statement of the problem .....   | 7    |
| Research questions.....  | 8    |
| Significance of the study .....  | 9    |
| Conclusion.....  | 10   |
| CHAPTER II: LITERATURE REVIEW.....   | 11   |
| Introduction .....   | 11   |
| Pronunciation.....   | 12   |
| The Definition and Role of Pronunciation with Some Common Relevant Terms ... | 12   |
| Historical Background of Pronunciation Teaching.....                         | 13   |
| Factors Affecting Pronunciation Ability and Learning.....                    | 18   |
| Age .....  | 19   |
| Motivation and Attitude .....  | 21   |
| Formal Instruction.....  | 23   |
| Aptitude .....   | 25   |
| Gender .....   | 26   |
| Learning Strategies in General .....   | 28   |
| Definition of Learning Strategies.....                                       | 28   |
| Classification of Learning Strategies .....                                  | 30   |
| Learning Strategies in Relation to Language Skills.....                      | 35   |
| Learning Strategies in Relation to Reading.....                              | 36   |
| Learning Strategies in Relation to Vocabulary skills.....                    | 37   |

|   |    |
|---|----|
| Learning Strategies in Relation to Listening and Speaking Skills.....   | 38 |
| Learning Strategies in Relation to Writing Skills .....   | 39 |
| Learning Strategies in Relation to Grammar Skills .....   | 40 |
| Learning Strategies and Pronunciation .....   | 42 |
| Relevant Research Studies.....  | 42 |
| The Offerings of the Strategy Studies in terms of Specific Language Skills for<br>the Current Line of Research .....  | 46 |
| Conclusion.....   | 47 |
| CHAPTER III: METHODOLOGY .....  | 49 |
| Introduction .....  | 49 |
| Participants .....  | 50 |
| Instruments .....   | 52 |
| The Strategy Inventory for Learning Pronunciation (SILP).....   | 52 |
| The Background Questionnaire .....  | 53 |
| Pronunciation Elicitation Tasks .....   | 54 |
| The Rating Procedure and Pronunciation Rubric .....   | 54 |
| Procedure.....  | 55 |
| Data Analysis.....  | 58 |
| Conclusion.....   | 61 |
| CHAPTER IV: DATA ANALYSIS .....   | 62 |
| Overview of the Study .....   | 62 |
| Data Analysis Procedures.....   | 63 |
| Results .....   | 68 |
| What pronunciation learning strategies do Turkish learners of English employ? ....                                    | 68 |
| Overall Patterns of Strategy Use by Study Participants .....  | 68 |
| The Ten Most Used and Ten Least Used Strategy Items (in terms of<br>number of strategies used) .....                  | 70 |
| What is the Relationship between Pronunciation Ability and the Extent of<br>Pronunciation Learning Strategy Use?..... | 72 |
| Differences in terms of Number of Strategies Used on the Whole SILP .....   | 73 |
| Differences in terms of Number of Strategies Used across the Six SILP<br>Sub-categories.....                          | 73 |

|  |     |
|--|-----|
| Differences in terms of Frequency of Use on the Whole SILP .....   | 74  |
| Differences in Frequency of Use of the Six Sub-categories of Strategies .....                                      | 74  |
| What is the Relationship between Pronunciation Ability and Particular<br>Pronunciation Learning Strategy Use?..... | 75  |
| Strategies of Significant or Near-significant Variation by Proficiency Level ..                                    | 76  |
| Strategies of Non-Significant Variation by Proficiency Level .....   | 78  |
| What is the Relationship between Pronunciation Ability and the Secondary<br>Variables? .....                       | 80  |
| Pronunciation Ability and Self-perception of Pronunciation Ability.....  | 80  |
| Pronunciation Ability and Perceived Importance of Pronunciation.....   | 81  |
| Pronunciation Ability and Out-of-class Exposure to English.....  | 82  |
| Pronunciation Ability and Gender.....  | 83  |
| Pronunciation Ability and Age at Beginning of English Study.....   | 84  |
| Pronunciation Ability and Length of English Study.....   | 85  |
| What is the Relationship between Pronunciation Learning Strategy Use and<br>Secondary Variables?.....              | 86  |
| Pronunciation Learning Strategy Use and Self-perception of Pronunciation<br>Ability .....                          | 86  |
| Pronunciation Learning Strategy Use and Perceived Importance of<br>Pronunciation.....                              | 87  |
| Pronunciation Learning Strategy Use and Out-of-class Exposure to English ..  | 88  |
| Pronunciation Learning Strategy Use and Gender .....   | 88  |
| Conclusion.....  | 90  |
| CHAPTER V: CONCLUSIONS .....   | 91  |
| Introduction .....   | 91  |
| General Results and Discussion.....  | 91  |
| A Detailed Picture of Pronunciation Learning Strategies used by Turkish<br>Learners of English .....               | 91  |
| Overall Strategy Use and Pronunciation Ability .....   | 94  |
| Particular Strategy Use and Pronunciation Ability .....  | 96  |
| Secondary Variables of the Study and Pronunciation Ability.....  | 99  |
| Secondary Variables of the Study and Pronunciation Learning Strategy Use .....                                     | 104 |

|  |     |
|--|-----|
| Pedagogical Implications of the Study.....   | 106 |
| Limitations of the Study.....  | 108 |
| Suggestions for Further Research.....  | 109 |
| Conclusion.....  | 112 |
| REFERENCES.....  | 114 |
| Appendix A - Preliminary list of pronunciation learning strategies.....                                    | 122 |
| Appendix B - Changes Made in Peterson’s Preliminary List of Pronunciation<br>Learning Strategy Items ..... | 123 |
| Appendix C - Strategy Inventory for Learning Pronunciation (SILP; the English<br>version).....             | 125 |
| Appendix D - Strategy Inventory for Learning Pronunciation (SILP; the Turkish<br>version).....             | 128 |
| Appendix E - Background Information Sheet.....   | 131 |
| Appendix F - Pronunciation Elicitation Tasks .....   | 132 |
| Appendix G – Instructions to Pronunciation Judges .....  | 133 |
| Appendix H - An Advance Notice.....  | 134 |



## LIST OF TABLES

| <u>TABLE</u>  | <u>PAGE</u> |
|---|-------------|
| Table 1 Gender and age .....  | 51          |
| Table 2 Years of English study .....  | 51          |
| Table 3 Age at beginning of English study .....   | 51          |
| Table 4 Frequency mean for all participants on the whole SILP .....   | 69          |
| Table 5 Frequency means for all participants on the sub-categories of SILP .....  | 69          |
| Table 6 The average number of strategies used on the whole SILP and SILP sub-categories .....                                 | 70          |
| Table 7 The ten most used strategy items by their frequencies and percentages of use .....                                    | 70          |
| Table 8 The ten least used strategy items by their frequencies and percentages of no-use.....                                 | 71          |
| Table 9 Descriptive statistics for the pronunciation ability scores of the three pronunciation proficiency groups .....       | 72          |
| Table 10 Means for the three pronunciation proficiency groups, average number of strategies used on the entire SILP .....     | 73          |
| Table 11 Average number of strategies used on the six SILP sub-categories for the three pronunciation proficiency groups..... | 74          |
| Table 12 Means for the three pronunciation proficiency groups, overall frequency of strategy use.....                         | 74          |
| Table 13 The means for the three proficiency groups, sub-categorical frequency of strategy use.....                           | 75          |
| Table 14 Items showing no significant variation by pronunciation proficiency level, high use.....                             | 78          |
| Table 15 Items showing no significant variation by pronunciation proficiency level, medium use .....                          | 79          |
| Table 16 Items showing no significant variation by pronunciation proficiency level, low use.....                              | 80          |
| Table 17 Means for the three pronunciation proficiency groups, age at beginning of English study .....                        | 84          |

|   |    |
|---|----|
| Table 18 The degree of difference among the pronunciation ability and age at beginning of English study ..... | 84 |
| Table 19 Means for the three pronunciation proficiency groups, length of English study..                      | 85 |
| Table 20 The degree of difference among the pronunciation ability and length of English study.....            | 85 |
| Table 21 Means for the three pronunciation self-perception groups, number of strategies used.....             | 86 |
| Table 22 Means for the three pronunciation perception groups, overall frequency of use.....                   | 86 |
| Table 23 Means for the two perceived importance of pronunciation groups, number of strategies used.....       | 87 |
| Table 24 Means for the two perceived importance of pronunciation groups, overall frequency of use.....        | 87 |
| Table 25 Means for the three out-of-class exposure groups, total number of strategies used.....               | 88 |
| Table 26 Means for the three out-of-class exposure groups, overall frequency of use.....                      | 88 |
| Table 27 Means for females and males, the total number of strategies used .....                               | 89 |
| Table 28 The degree of difference between pronunciation learning strategy use and gender .....                | 89 |
| Table 29 Means for females and males, overall frequency of use .....  | 89 |
| Table 30 The degree of difference between the overall frequency of use and gender.....                        | 89 |

## LIST OF FIGURES

| <u>FIGURE</u>   | <u>PAGE</u> |
|---|-------------|
| Figure 1 Learning Strategy Classification, O'Malley and Chamot .....  | 32          |
| Figure 2 Learning Strategy Classification, Indirect, Oxford.....  | 33          |
| Figure 3 Learning Strategy Classification, Direct, Oxford.....  | 34          |
| Figure 4 Final scoring of the two pronunciation elicitation tasks for an individual<br>participant.....   | 57          |
| Figure 5 Relationships explored by RQ 2 .....   | 58          |
| Figure 6 The number of participants at each proficiency level (high-moderate-low) in<br>terms of their reported frequencies of each strategy item ..... | 60          |
| Figure 7 An example of regular staircase pattern classified as showing positive<br>variation .....  | 65          |
| Figure 8 An example of regular staircase pattern classified as showing negative<br>variation .....  | 66          |
| Figure 9 - Nonstairstep variation characterized as mixed - Item 21 .....  | 77          |
| Figure 10 - Nonstairstep variation characterized as mixed - Item 39.....  | 77          |
| Figure 11 - Nonstairstep variation characterized as mixed - Item 1 .....  | 77          |
| Figure 12 Distribution of students' self-ratings of pronunciation by pronunciation<br>proficiency level .....   | 81          |
| Figure 13 Distribution of students' perception of the English pronunciation by<br>pronunciation proficiency level .....                                 | 82          |
| Figure 14 Distribution of students' estimates of out-of-class exposure to English by<br>pronunciation proficiency level .....                           | 83          |
| Figure 15 Distribution of female and male students by pronunciation proficiency level ...   | 83          |

## CHAPTER I: INTRODUCTION

### Introduction

Pronunciation has been referred to as the “Cinderella area” (Kelly, 1969) of the foreign language world. It is an aspect of language that has often been neglected if not completely ignored. However, in recent years, there has been an increasing interest in teaching competent pronunciation, especially in ESL/EFL classrooms, based on the assumption that “there is a threshold level of pronunciation for non-native speakers of English” (Celce-Murcia, Brinton, & Goodwin, 1996, p. 7). If second language learners fall below this threshold level, their poor pronunciation may detract significantly from their ability to communicate. They can encounter oral communication problems no matter how perfect their grammar and vocabulary skills are (Celce-Murcia et al., 1996).

People often wonder why some second language learners have accents that are so much like native speakers while others exhibit thick, heavy foreign accents. Because of the need to explore the question of differential success in pronunciation learning, a number of researchers have sought to examine learner variables influencing second language pronunciation ability, such as age, aptitude, motivation and formal instruction. However, surprisingly little attention has been paid to the variable of learning strategies in relation to pronunciation ability. Further, in spite of the explosion of activity on foreign/second language learning strategies in general or in specific skills, there is an unfortunate lack of research in relation to pronunciation learning strategies. This study attempts to investigate the relationship between pronunciation ability and pronunciation learning strategy use and what pronunciation

learning strategies are employed by Turkish students. The study also examines the ways a number of other variables may relate to pronunciation ability and pronunciation learning strategy use.

### Key Terms

**Pronunciation:** “A way of speaking a word, especially a way that is accepted or generally understood” (American Heritage Dictionary, 1992, p. 1450).

**Learning Strategies:** “Specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations” (Oxford, 1990, p. 8).

**Pronunciation Learning Strategies:** “Specific actions taken by the learner to make pronunciation learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations” (adapted from Oxford, 1990).

**Secondary Variables:** Such variables as language level, self-perception of pronunciation ability, perceived importance of pronunciation, and out-of-class exposure to English, which are of interest, but not the major focus of the study.

**Accent:** “A mode of pronunciation, as pitch or tone, emphasis pattern, or, intonation, characteristic of or peculiar to the speech of a particular person, group or locality” (Webster’s Encyclopedic Unabridged Dictionary, 1989, p. 8).

### Background of the study

The language teaching profession has changed its outlook many times with respect to the teaching of pronunciation. In other words, the role of pronunciation has varied widely, from being virtually at the forefront of instruction to being in the back wings.

After the severe neglect it suffered during the time of the Grammar-Translation Method, beginning with the 1940s, the 1950s and into the 1960s, pronunciation began to be viewed as an important component of learners' overall language ability. It was explicitly taught in both the Audio Lingual Method in the U.S. and Situational Language Teaching in the U.K. Pronunciation instruction, in this period, gave primary attention to phonetic explanations with an emphasis on visual transcription systems, articulation of sounds and phonotactic rules and to the notions of stress, rhythm and intonation (Celce-Murcia et al., 1996; Morley, 1991). However, the late 1960s and early 1970s showed a sharp contrast to the previous period, which had been regarded as the golden time of pronunciation teaching. As Morley (1991) states, many questions were raised about the place of pronunciation teaching in ESL/EFL curricula, such as whether it should be taught directly and whether the focus of programs and the ways of teaching were effective. As a result of this questioning, pronunciation started to lose its primary importance, and pronunciation teaching was pushed aside entirely from many language programs.

However, beginning in the mid 1980s and continuing into the 1990s and the 2000s, there has been an increasing interest in teaching competent pronunciation, and pronunciation instruction has revisited the ESL curriculum but this time with a new look and basic premise: "Intelligible pronunciation is an essential component of

communicative competence” (Morley, 1991, p. 488). Given the influence of the Communicative Approach on language teaching, the focus has shifted from segmental features, such as vowels and consonants, to suprasegmental features (i.e., rhythm, stress and intonation), along with more emphasis on individual learner needs.

Paralleling these “new-looks” (Morley, 1991, p. 481) in pronunciation, researchers have started to seek new and fruitful directions of research in relation to pronunciation. The recognition of learner problems has stimulated investigators to explore the question of differential success in pronunciation learning. Although not great in number, several attempts have been made to examine other factors influencing second language pronunciation ability rather than the type of pronunciation instruction involved. Among these factors are age, language aptitude, motivation, formal instruction, and gender (Bongaerts, 1999, 2005; Dalton-Puffer, Kaltenboeck, & Smit, 1997; Elliott, 1995; Flege & Fletcher, 1992; Flege, Munro, & MacKay, 1995; Long, 1990; Moyer, 1999; Thompson, 1991).

Learning strategies, which have come into focus recently, may be another variable affecting pronunciation ability. Many definitions of learning strategies have been advanced; however, there is still some confusion and disagreement over the terms. Learning strategies have been defined by Oxford (1990) 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). Others have argued that Oxford’s definition excludes the possibility that learners may be unaware of the strategies they use while learning and have added some new dimensions to their definitions. Purpura (1997), for instance, has emphasized the conscious and

unconscious nature of the learning strategies and defined learning strategies as “conscious or unconscious mental or behavioral activities in the process of second language acquisition” (p. 293). One of the accomplishments of second language strategy research is that of the classification of learning strategies (Ellis, 1994). There are two major classifications of learning strategies in the literature. The first is O’Malley’s and Chamot’s categorization (e.g., O’Malley & Chamot, 1990; O’Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985) and the other is Oxford’s (1990) schema. In their categorization scheme, O’Malley and Chamot (1985) describe three major categories of strategies: metacognitive, cognitive and social/affective. Oxford’s (1990) categorization system, which is widely accepted as the most comprehensive and detailed classification of learning strategies to date, has two main classes, direct and indirect strategies, which are further divided into six groups, including, among others, metacognitive, cognitive and social/affective strategies.

Apart from these previous studies, reporting on general knowledge and categorizations of the learning strategies, there has been a recent surge in research on skill learning strategies, in areas such as vocabulary (e.g., Lawson & Hogben, 1996; Mofareh, 2005; Schmitt & Schmitt, 1993), reading (e.g., Lau, 2006; Rao, Gu, & Hu, 2007; Uzuncakmak, 2005), listening and speaking (e.g., Kao, 2006; Zhang & Goh, 2006), writing (e.g., Chamot, Interstate Research Associates, & et al., 1988; Sullivan, 2006) and grammar (e.g., Yalcin, 2003). However, in the arena of pronunciation, there is a scarcity of research on learning strategies in relation to pronunciation ability. Derwing and Rossiter (2002) reported on the perceptions of adult ESL learners with regard to their pronunciation difficulties and communication strategies.



The researchers studied strategies of pronunciation use and communication used by learners when they faced oral communication problems, rather than the strategies of pronunciation learning. Likewise, Osburne (2003), exploring the strategies of use, used retrospective oral protocols to investigate the pronunciation strategies used by advanced ESOL learners. The researcher disregarded the participants' general pronunciation learning strategy use, instead focusing on the reported strategies peculiar to one particular pronunciation task assigned. Osburne (2003) also did not investigate how the use of pronunciation learning strategies related to pronunciation ability. This relationship was, however, explored by Peterson (1997), who examined the pronunciation learning strategies used by American students learning Spanish, and the relationship between pronunciation ability and learning strategies. She conducted her study with students from beginning, intermediate and advanced classes. However, she did not analyze the three groups separately. Thus, it is questionable whether we should attribute the differences in pronunciation ability scores to the level of Spanish or to pronunciation strategy use. Further, since she modified the Strategy Inventory for Language Learning (SILL; Oxford, 1990) by adding 20 more statements, there was a relatively large number of items. For this reason, she did not examine the individual strategy items and their relation to pronunciation ability in a detailed manner. Therefore, the evidence for how pronunciation ability relates to general pronunciation learning strategy use and particular strategies is inconclusive.

### Statement of the problem

Although concerns about how to teach pronunciation have largely overshadowed the learner factors influencing L2 pronunciation ability, several attempts have been made to investigate these variables, such as age, language aptitude, motivation, formal instruction, and gender (Bongaerts, 1999, 2005; Theo Bongaerts, van Summeren, Planken, & Schils, 1997; Dalton-Puffer, et al., 1997; Elliott, 1995; Flege & Fletcher, 1992; Flege, et al., 1995; Long, 1990; Moyer, 1999; Thompson, 1991). However, in spite of the explosion of research and interest in the variable of foreign/second language learning strategies in general or in specific skills, little attention has been paid to strategy research in relation to pronunciation learning. With the exception of Peterson's study (1997), which was conducted with native English speakers of Spanish, little is known about the relationship between pronunciation learning strategy use and pronunciation ability. In order to fully understand the nature of the relationship between learning strategy use and pronunciation ability, further investigation into pronunciation learning strategies in different settings is needed. A number of researchers (e.g., Chen, 2002; Lee, 2001) working on strategies highlighted the need for more studies with different populations and cultural settings. Further, Oxford and Nyikos (1989) claimed that learner variables, such as national origin, cultural background and language teaching method, have a direct effect on learners' strategy use. Therefore, the generalizability of the findings of the previous research conducted in a particular culture and setting, with different first and target languages, may be problematic and inappropriate.

Pronunciation has seemed to be out of favor in the field of ELT in Turkey. With the advent of new perspectives on language learning and language teaching, the idea

of intelligible pronunciation has been generally accepted in Turkey (Celik, 2008; Demirezen, 2007); however, there are ongoing concerns about how to teach and integrate pronunciation into the language syllabi with an emphasis on learner involvement. Because of the absence of informed decisions on the part of the education policy makers, teachers are left to proceed with their own intuitive ways of teaching pronunciation. Therefore, teachers should know more about the ways in which their learners learn pronunciation so as to help their learners better in their learner-centered classrooms.

#### Research questions

This study aims to address the following research questions:

1. What pronunciation strategies do Turkish learners of English employ?
2. What is the relationship between pronunciation ability and the extent of pronunciation learning strategy use?
3. What is the relationship between pronunciation ability and particular pronunciation learning strategy use?
4. How do a number of other variables (e.g., self-perception of pronunciation ability, perceived importance of pronunciation, gender, out-of-class exposure to English, length of English study and age at beginning of English study) relate to pronunciation ability? What is the relationship between pronunciation ability and each of these variables?
5. How do a number of other variables (e.g., self-perception of pronunciation ability, perceived importance of pronunciation, gender, and out-of-class exposure to English) relate to pronunciation learning strategy

use? What is the relationship between pronunciation learning strategy use and each of these variables?

#### Significance of the study

By exploring pronunciation learning strategies and the nature of the relationship between these strategies and pronunciation ability, this study may shed more light on the variable of learning strategies, which is surprisingly absent from the literature as a predictor of pronunciation ability. This study may provide a further understanding and discovery of pronunciation learning strategies in terms of a different population, language and cultural setting. Furthermore, the findings of the study may contribute to the newly developing and promising area of strategy training by addressing the need to train students to use pronunciation learning strategies for the purpose of improving pronunciation.

Given the shift toward the learner-centered classroom in the Turkish education system, Turkish English teachers are expected to pay more attention to learner needs and empower students in pronunciation, meaning in part to give students the resources they need to become responsible for and involved in their own pronunciation learning. In the light of the findings of this study, Turkish ELT teachers can evaluate the effectiveness and scope of their pronunciation teaching in terms of supporting the learners' needs, strategy awareness and involvement. This study seeks to introduce the idea of pronunciation learning strategies into the context of ELT in Turkey, and in this respect it may also give a new dimension to the question of how to teach pronunciation in the field of ELT in Turkey by accentuating the need for pronunciation strategy training for the purpose of achieving successful

oral communication in the second language. Finally, the current study may contribute to the question of how teachers can help poor pronouncers improve as this study provides a further understanding of variables influencing second language pronunciation.

### Conclusion

The aim of this chapter was to introduce the current study by providing the study purpose, background information, statement of the research problem and the significance of the study. Research questions which will be addressed in this study were also presented. The next chapter is the review of the literature which will provide the relevant theoretical background for the study. In the third chapter, details about the research methodology of the study including the participants, instruments, data collection and analysis procedures will be provided. In the fourth chapter, the data collected through the data collection tools will be analyzed, and the findings will be reported. The fifth chapter will focus on the discussion of the results, pedagogical implications, limitations of the study and suggestions for further research.

## CHAPTER II: LITERATURE REVIEW

### Introduction

This study aims to investigate the pronunciation learning strategies employed by Turkish learners of English and the relationship between the extent of pronunciation learning strategy use and pronunciation ability. This study further explores how a number of secondary variables may relate to pronunciation ability and pronunciation learning strategy use.

As a basis for the study, the definition of pronunciation and the historical background of pronunciation teaching are presented. From this basis, it is seen that many second language researchers have been intrigued with one debatable question, that of differential success among second language learners. In order to shed more light on this issue, one section below surveys the possible variables that may have an influence on pronunciation ability. Learning strategies, which have come into focus recently in the literature, may also be another factor influencing pronunciation ability. Therefore, the notion of language learning strategies is explored, thus setting the scene for the purpose of this thesis. Before learning strategies with regard to pronunciation ability are discussed, an overview of language strategies research in relation to other language skills is presented.

## Pronunciation

### *The Definition and Role of Pronunciation with Some Common Relevant Terms*

Pronunciation is defined as “a way of speaking a word, especially a way that is accepted or generally understood” (American Heritage Dictionary, 1992, p. 1450). From this definition, it is easy to arrive at the interpretation that pronunciation includes both production and perception of the sounds of a particular language in order to understand and interpret meaning in the situations where we use language (Seidlhofer, 2001). Therefore, we can say that pronunciation involves the production and perception of segmental sounds along with suprasegmental (prosodic) features, such as stress, intonation and rhythm (Seidlhofer, 2001; Setter & Jenkins, 2005).

Although the importance of pronunciation as a major element in second language classroom has varied according to the popular methods and approaches of the day (Celce-Murcia et al., 1996), the central role of pronunciation in our professional and social lives cannot be denied. First, it is accepted as the way we speak and as our accent, which is the language feature showing our “regional, social and ethnic identities” the most easily (Setter & Jenkins, 2005, p. 1). Pronunciation is also responsible for our intelligibility to our listeners, that is to say whether we are understood by others or not (Setter & Jenkins, 2005). According to Seidlhofer (2001) and Setter and Jenkins (2005), pronunciation often happens at a subconscious level; therefore, it is difficult to control. This leads the authors to conclude that pronunciation is a very difficult and challenging aspect of second language learning and teaching.

According to Kreidler (1989), two aspects come to the forefront when we are discussing pronunciation. On the one hand, we pay attention to how people utter sounds and words, and on the other hand, we pay attention to the main characteristics of voice settings applied to these sounds and words. His idea is in line with Dickerson (1987):

We concentrate so hard on teaching performance skills - how to articulate the vowel and consonant sounds, how intonation patterns should sound, how to make good rhythm - that we forget about the competence side - the rules governing which sounds are used in words, which intonation patterns to use when, where stress falls in words and phrases. There is a system of rules for pronunciation, and learners need to acquire this system too (p. 14).

The view of pronunciation from these two aspects requires the use of concepts and ideas of two disciplines, phonetics and phonology. Phonetics is concerned with the study of speech sounds, the physical features of sounds, such as the articulation and acoustic characteristics of these sounds. It also pays attention to intonation, rhythm and stress patterns (e.g., Kreidler, 1989; Taylor, 1990). Phonology, on the other hand, is concerned with what these sounds and prosodic features do and how they work in a system. Phonology relates more to describing pronunciations and rules governing the use of appropriate sounds, stress and intonation when uttering words and phrases (Dickerson, 1987; Kreidler, 1989). As is obvious from his previous quotation, Dickerson (1987) suggests that phonology is a part of competence, whereas phonetics is a part of performance.

### *Historical Background of Pronunciation Teaching*

Pronunciation teaching has been linked to the instructional methods or approaches being used; that is, its place and importance as a component in the English language teaching curricula has changed and been shaped according to the



popular methods of the time. As Prator (1991) says, pronunciation teaching has lived the same swings of the pendulum as the methodological changes in second language teaching.

When we look at the historical evolution of ESL teaching, we see that pronunciation had no place and was considered irrelevant in the Grammar Translation Method, in which the primary goal of learning a language was to read and appreciate its literature, with little, if any, attention to the oral skills of the target language. After the severe neglect pronunciation suffered in the Grammar Translation Method, the Reform Movement, which opened the pathway for the founding of the International Phonetic Association (IPA), contributed to the teaching of pronunciation by establishing pronunciation and phonetics as “a principled, theoretically founded discipline” (Seidlhofer, 2001, p. 56). With the influence of the Reform Movement, in the 1940s, 1950s and 1960s, pronunciation gained higher priority and was explicitly taught in both the Audiolingual Method in the U.S. and its British counterpart, Situational Language Teaching. The pronunciation instruction of the period featured primary emphasis on phonetic explanation of sound articulation and phonotactic rules of stress, rhythm and intonation. The teacher used visual transcription systems and drilling techniques, and students memorized and imitated language patterns or dialogues. The attention was on the high priority goal of accuracy (Celce-Murcia et al., 1996; Morley, 1991). Students spent hours in language laboratories listening to sounds and discriminating between minimal pairs (Larsen-Freeman, 1986). In the 1960s, pronunciation returned to its silent period with the emergence of the cognitive movement, which had been influenced by transformational-generative grammar and cognitive psychology. Grammar and

vocabulary gained popularity over pronunciation (Celce-Murcia et al., 1996). Morley (1991) mentions questions raised at that time about whether pronunciation had a place as an instructional component in the ESL/EFL curricula, whether it should be taught directly or whether it could be learned by direct instruction. As the result of these questions and concerns, pronunciation lost its role as a primary component in the curriculum, and the class time and explicit attention given to pronunciation was either entirely dispensed with or greatly reduced in many language programs (Morley, 1991; Seidlhofer, 2001).

During the 1970s, which we could also consider to be a transition period towards more communicative methods and approaches to ESL/EFL instruction, there were two humanistic methods dealing with pronunciation, but in different ways than in the earlier periods. The Silent Way, like Audiolingualism, gave attention to accuracy of pronunciation and to the sound system; however, there was no emphasis on the visual transcription systems or phonetic explanation. As for Community Language Learning, it was different from the Silent Way in that learners had more chance to practice the target pronunciation item and could decide the amount of repetition themselves. Pronunciation at that period was neither at its height of importance nor at its lowest point. However, there were foreshadows of what was to come in the near future. With the influence of these humanistic methods, some signs of change appeared. Dissatisfied with the methods and the principles of traditional pronunciation teaching, several ESL professionals wrote articles emphasizing the need for a change from the traditional view of teaching pronunciation (e.g., Allen, 1971; Bowen, 1972; Smith & Rafiqzad, 1979; Stevick, Morley, & Robinett, 1975). In the early period of communicative language teaching during the early 1980s,

pronunciation was still suffering a setback (Levis, 2005; Setter & Jenkins, 2005). However, the basic premise of the priority of spoken language over the written brought by the Reform Movement was never altogether lost (Setter & Jenkins, 2005). Pronunciation-focused papers through the seventies opened the path through the eighties for a considerable number of journal articles (e.g., Grant, 1988; Leather, 1983; Pennington & Richards, 1986; Yule, 1989), teacher resource books (e.g., Bygate, 1987; Morley, 1987) and language reference books (e.g., Kreidler, 1989; Ladefoged, 1982; Wells, 1982). Given all these efforts, beginning in the mid-1980s and continuing into the 1990s, there was a resurgence in teaching competent pronunciation, and pronunciation instruction regained its role in the foreign language teaching curriculum, but this time with a whole new perspective supporting the view that “intelligible pronunciation is an essential component of communicative competence” (Morley, 1991, p. 488).

In this new communicative approach framework, language is seen as a means of communication. Under the impact of this view, the native-like pronunciation goal of the previous principles and practices has been changed into a more reasonable goal of intelligible and functional communication. Celce-Murcia et al. (1996) mention “a threshold level of pronunciation for non-native speakers of English” (p. 7). If non-native speakers fall below this threshold level, they may experience oral communication problems, which may put them in a socially, professionally and educationally disadvantaged position (Morley, 1991, 1998). These problems illustrated the need for a reformulated pronunciation instruction. New programs have been developed with four main learner goals, such as “functional intelligibility, functional communicability, increased self-confidence, and speech monitoring

abilities and speech modification strategies for use beyond the classroom” (Morley, 1991, p. 500). Obviously, the first three factors are linked to real classroom instruction, whereas the last one relates more to the psychological aspect of learning, which is viewed as a kind of learner self-involvement process (Morley, 1991).

Beginning with the 1990s and continuing into the 2000s, pronunciation pedagogy and research have sought new ways of pronunciation instruction, compatible with the communicative approaches to language learning and teaching. The concerns about whether to follow segmental-oriented or suprasegmental-oriented approaches in pronunciation instruction are no longer uttered. The emphasis has shifted to the teaching of the most important and salient aspects of both the segmentals and suprasegmentals (Celce-Murcia et al., 1996). Discourse intonation is another new perspective examined and supported by a number of researchers and educators (Chun, 2002; Wichman, 2000; both as cited in Setter & Jenkins, 2005). The discourse intonation model relates to the communicative purposes of intonation rather than the linguistic and emotional functions. That is, learners are first expected to assign social meanings and roles with the help of prominence and tone of voice (falling, rising or referring tone choices). They then should pay attention to the control of their conversations, for instance, by using the rules of turn-taking and initiating/ending conversations. This model also has led to the emergence of a lexically-based discourse intonation approach, which is described as the teaching of lexical phrases and units together with their intonation patterns (Setter & Jenkins, 2005). Innovations in technology and electronic media have a lot to offer to pronunciation instruction. A number of electronic teaching materials, such as electronic dictionaries, online pronunciation web-sites and pronunciation software

programs, have been developed so as to facilitate and help pronunciation teaching and learning. There is also a growing body of studies focused on the development of spoken corpora. In addition to all these, language games, dramas and communicative activities have been suggested by several researchers for classroom use (Celce-Murcia et al., 1996; Stern, 1980, as cited in Goodwin, 2001). However, there are still some concerns about how to teach pronunciation in the classroom at present.

According to Levis (2005), “pronunciation theory, research and practice is still in transition” (p. 376). In spite of the communicatively-oriented instructional aspects and the research cited above, there is still scant emphasis on the learner. Although the idea of learner involvement through self-monitoring is not a new focus (e.g., Acton, 1984; Firth, 1987; Morley, 1991, 1998; Stevick et al., 1975; Wong, 1986), Morley’s question (1991) in her TESOL article, “How can a goal of learner involvement be reached in the pronunciation teaching process?” (p. 506) is still waiting for a reasonable answer.

#### Factors Affecting Pronunciation Ability and Learning

The fact that some second language learners attain almost native-like pronunciation while others struggle with an unintelligible foreign accent, though they have mastered the lexis, syntax or morphology of the target language, has intrigued many second language acquisition researchers. They have begun to question what it is that distinguishes successful pronouncers from less successful ones. In order to find a reasonable answer to the question of differential success among second language learners, investigators have suggested several factors or variables that may have an impact upon pronunciation learning and ability. The following section

briefly describes and examines each of these learner-dependent factors reported in the existing literature.

### *Age*

It is often assumed that one sounds more like a native speaker if he starts learning a second language as a child. In contrast, if someone starts learning another language later in life (i.e., after adulthood), his accent will not probably be native-like though he has achieved a native-like mastery in some other aspects, such as syntax and vocabulary (Kenworthy, 1997). Such disadvantages of adults in second language learning have been demonstrated with many substantial examples, such as the case of what Scovel (1969, 1988) calls a Joseph Conrad phenomenon. Joseph Conrad was a Polish-born English author who learned English as a late starter. Conrad always spoke with an obvious foreign accent in spite of his perfect mastery of morphology and syntax, clearly seen in his writing. Such cases as Conrad's have fascinated most linguists and language teachers since the beginning of language teaching. This growing interest, in turn, paved the way for the emergence of the question about the existence and effects of age constraints on the mastery of second language pronunciation.

The view that Kenworthy (1997) supported above was originally developed and conceptualized by Lenneberg (1967). He stated:

Automatic acquisition from mere exposure to given language seems to disappear after puberty, and foreign languages have to be taught and learned through a conscious and labored effort. Foreign accents cannot be overcome easily after puberty. However, a person can learn to communicate at the age of forty (p. 176)

There have been a number of studies supporting this idea of a critical period for native-like speech (e.g., Flege & Fletcher, 1992; Flege et al., 1995; Long, 1990; Patkowski, 1990; Scovel, 1988). Some of the authors just mentioned have also made suggestions concerning when the critical period for native-like attainment ends. Scovel (1988) suggested the age of 12 years, Long (1990) offered the age of six years, and Patkowski (1990) identified the age of 15 years as the end period for native-like acquisition. The authors of these studies would probably conclude that when it comes to the ultimate attainment of native-like pronunciation, younger is better.

In their research paper investigating maturational constraints for second language acquisition, Hyletenstam and Abrahamsson (2000) presented the three lines of research that provide counterevidence for Lenneberg's original formulation as to the advantage of younger language learners over older ones. They first mention some studies challenging the critical period hypothesis, with adult learners outperforming younger ones in some linguistic aspects (e.g., Cummins, 1981; Krashen, 1979; Long, 1990). Second, several studies found that adult learners were able to achieve a native-like accent in spite of the late start in learning (e.g., Bongaerts, 1999, 2005; Bongaerts et al., 1997; Moyer, 1999; White & Genesee, 1996). The third type of research has suggested that there is no specific age span, such as before and after puberty, but there is a linear decline with increasing ages of onset (e.g., Bialystok & Hakuta, 1994; Bialystok & Miller, 1999; Flege et al., 1999). In other words, the higher the age of onset (i.e. age at beginning of learning a second language) the lower the level of native-like pronunciation proficiency.

In summary, we can say that the research on the age constraints in second language speech learning is inconclusive. As Flege et al. (1995) state, foreign accent studies have some methodological weaknesses, which is why the literature provides us with debatable evidence about the influence of age of learning on second language pronunciation.

### *Motivation and Attitude*

Generally speaking, someone who cares about a task and sees a particular value in it will probably become motivated to do it well. This common idea constituted a springboard for second language accent studies exploring possible predictors of second language pronunciation ability. Several attempts have been made to investigate the effects of motivational and attitudinal variables upon second language pronunciation ability and the degree of foreign accent.

A number of researchers reported no effects of motivational or attitudinal factors on pronunciation ability (e.g., Dalton-Puffer et al., 1997; Thompson, 1991). In their study conducted with advanced Austrian EFL learners, Dalton-Puffer et al. (1997) found that though the participants reported having positive attitudes towards the standard British accent (Received Pronunciation), they were not that successful in that standard pronunciation they had evaluated so positively.

Conversely, the findings of other researchers have shown the opposite. Elliott (1995) found a significant correlation between the scores gained in a pronunciation attitude inventory (measuring the participants' concerns for pronunciation accuracy on a scale of 1 to 5) and pronunciation. This finding indicated that learners with a concern for the accuracy of their pronunciation, which Elliott equates with motivation, have better levels of pronunciation proficiency. Among the 12 variables



Elliott (1995) assessed, attitude came out as the most significant one. However, it is not wise to generalize the findings of this study as Elliott did not investigate the influences of other underlying factors contributing to attitude (e.g., years of formal instruction and grades gained). More work is needed to talk about which factors enhance positive attitudes, which then turn into a concern for pronunciation accuracy (Elliott, 1995).

Bongaerts et al. (1997) and Moyer (1999) conducted their studies with highly motivated and successful late learners with the main purpose of investigating whether such motivated participants would perform at the level of native speakers in terms of their accents in spite of their late start in learning. Bongaerts et al. (1997) examined the English pronunciation of 11 late second language learners and found that the pronunciation ratings of five of them fell within the range of ratings achieved by the control group of native speakers. Though examining the influence of motivation was not their primary focus, and thus they did not investigate it statistically, Bongaerts et al. (1997) suggested that a very high motivation on the part of these five exceptional second language learners may have worked in concert with some other factors (access to the target language, perceptual phonetics training and neurocognitive factors) to eradicate the constraints due to a late start in learning. Though Moyer (1999) found a significant correlation between motivation and proficiency in her study conducted with 24 native speakers of English learning German, native-level performance was not observed at all. These studies were conducted in a foreign language environment; however, participants in both cases reported target language exposure. The Dutch participants of Bongaerts et al.'s (1997) study were exposed to the target language through both the Dutch media and

a year spent abroad at a British university as a part of their training. Moyer's (1999) participants also reported varying amounts of immersion time in the target community.

Overall, in looking at the findings of the above studies, it seems that the results are divergent, and thus the research is inconclusive. Looking at Moyer's study, for instance, which specifically set out to investigate motivation, the results showed a strong relationship between motivation and the degree of foreign accent. However, the absence of optimal performance, of a large group of participants (only graduate students) and thus of various motivation types, points to the need for more studies so as to reach more reliable and conclusive results as to the influence of motivation on the second language pronunciation ability. As is clear from the studies above, they do not say much about the motivational orientations of the individual participants in their studies. In addition, though the settings of these studies were foreign language environments, the influence of varying degrees of immersion or exposure time cannot be denied. Therefore, further research may also examine the influence of attitudinal factors upon the degree of foreign accent in a setting where the exposure to the target language is limited.

#### *Formal Instruction*

The role and effect of formal instruction as a predictor of the degree of foreign accent has again been a controversial area with some inconclusive results. On the one hand, some researchers have found positive effects of pronunciation instruction on the learners' pronunciation proficiency. For example, Flege and Fletcher (1992) found strong correlations between the number of years of pronunciation instruction and second language foreign accent in their study conducted with Spanish learners of

English. Bongaerts, Planken and Schils (1995) conducted their research with adult graduate participants who had received pronunciation training during their school lives, and some of these participants seemed to attain native-like pronunciation in their second language. In Moyer's (1999) study conducted with native English speakers of German, both supra-segmental and segmental training correlated well with the degree of success in second language pronunciation.

Suter (1976, as cited in Flege & Fletcher, 1992), however, provided counter evidence to the findings above. Results indicated no significant relationship between formal instruction and pronunciation proficiency. Flege et al. (1999) also investigated the influence of the amount of U.S. education on Korean learners' pronunciation of English. The results of the study suggest no significant influence for formal instruction in terms of lexically based aspects of English morphosyntax (including phonology and pronunciation). However, the researchers found an influence for formal instruction in terms of rule based aspects of English morphosyntax.

These different findings of the accent studies above may stem from differences in their experimental designs and the kind of formal instruction investigated or provided (Pennington & Richards, 1986). Considering the inconsistent and even contradictory results suggested by the studies above, it would be inappropriate to identify the variable of formal instruction as a significant predictor of second language pronunciation ability without further in-depth and precise investigation.

### *Aptitude*

It is a common view that some second language learners are inherently more capable of learning foreign languages than others. In the arena of pronunciation, Kenworthy (1997) has suggested three terms all describing aptitude (which means natural talent), namely “aptitude for oral mimicry”, “phonetic coding ability” and “auditory discrimination ability” (p. 6). Carroll (1965, 1981, as cited in Celce-Murcia et al., 1996) includes phonemic coding ability among the four main traits forming language aptitude and describes it as “the capacity to discriminate and code foreign sounds such that they can be recalled” (p. 17). Some studies have shown that mimicry ability has emerged as one of the predictors of the degree of foreign accent (e.g., Flege et al., 1999; Suter, 1976, as cited in Thompson, 1991; Thompson, 1991). Mimicry ability could only account for a small degree of variance in the degree of foreign accent in these studies. However, in all studies except for one (Suter, 1976, as cited in Thompson, 1991), information about mimicry ability was based on the self-reports of the participants. Only Suter (1976, as cited in Thompson, 1991) based his evaluation of mimicry ability on Pike’s test of oral mimicry, thus obtaining more impartial results.

As can be clearly seen, previous research has centered more on mimicry ability rather than on a general look at musical aptitude, which also includes the other two perspectives included by Kenworthy (1997) in his description of aptitude. As is also clear, there is a scarcity of research on aptitudinal factors in the literature. Most studies reported above included mimicry ability as their secondary variables, which were not central to their studies. Therefore, much work is needed to examine the influence of these factors on the degree of foreign accent and pronunciation ability in

a more detailed and controlled manner. Another interesting research area would be the investigation of the notion of phonologic intelligence of learners with regard to Multiple Intelligences (MI) Theory. Though little attention has been paid to the concept of phonologic (or phonetic) intelligence, some implications have been suggested by several researchers. Skehan (1989, as cited in Celce-Murcia et al., 1996), for instance, distinguishes phonemic coding ability from general intelligence and other language aptitudes and traits. Phonologic intelligence, in this sense, may be another new intelligence type or a component included in some or all of the eight intelligence categories of the MI Theory. Also worthy of further investigation is the notion of innateness of language aptitude. Is aptitude an innate capacity for learning languages or might there be some other factors that contribute to or interfere with aptitude as one grows?

### *Gender*

The influence of gender on pronunciation ability is again a controversial and inconclusive area of research. Some researchers have reported gender as a crucial predictor of pronunciation ability (e.g., Asher & Garcia, 1969, as cited in Thompson, 1991; Thompson, 1984, 1991). These studies have also found females more successful in pronunciation. Asher (1969, as cited in Thompson, 1991), for instance, found that females were better pronouncers than their male peers, but this difference between men and women became less strong with their prolonged residence in America. Though finding supporting evidence for gender differences similar to Asher (1969, as cited in Thompson, 1991), Thompson (1991) did not observe a diminishing superiority of performance on the part of females with prolonged residence. However, her study was not a strictly controlled experiment.

Other studies have not reported a significant effect for the variable of gender as a predictor of pronunciation ability (e.g., Elliott, 1995; Flege & Fletcher, 1992). In a study by Elliott (1995) in which he investigated 12 variables (including gender) that were thought to influence pronunciation accuracy, he did not find a significant relationship between gender and pronunciation. Flege and Fletcher (1992) also did not report any relation of gender to pronunciation. A probable explanation for this may be the similarities observed in background information reported by the all study participants, females and males and the absence of perceptible foreign accent in the early starters they use in the study.

A different perspective to the relationship between gender and degree of accent has been addressed by Flege et al. (1995). They suggest that gender differences related to the degree of foreign accent are affected by the variable of age of learning. Female participants with younger ages at the start of learning a second language performed better than males matched in terms of age of learning, while male participants who started learning a foreign language later in life (as late adolescents) showed better performance of pronunciation in comparison to the females matched for age of learning.

In sum, the divergent results of the previous studies do not lead us to draw any strong conclusions as to the influence of gender upon the degree of foreign accent. As it will be recalled, these studies used different methodological designs. Further studies are needed to investigate the variable of gender under more controlled conditions (e.g., in terms of age of learning, educational background, general language proficiency, length of residence) and also as the primary variable to be investigated.

The above factors are suggested by research in the hope that they may account for differences in the degree of foreign accent among second language learners.

Differential success among second language learners either in terms of overall gain in second language proficiency or certain language skills is an undeniable part of classroom instruction. Why do some of our learners have accents so much like native speakers while others cannot even pass the threshold level for second language pronunciation? The factors mentioned above may account for such differences, but the growing body of research on language learning strategies has led some scholars to see the use of learning strategies as one of the prominent factors that help successful learners to attain higher levels of performances, and thus creating individual differences in second language learning (Skehan, 1991). In this respect, language learning strategies in terms of pronunciation learning may be one of the factors influencing the pronunciation ability of second language learners. There is a growing body of research in terms of general or skills-specific language learning strategies in the literature. Before leading the discussion to the relationship between learning strategy use and pronunciation ability, it is wise to give some information on learning strategies and strategy research with regard to overall or specific language proficiency.

### Learning Strategies in General

#### *Definition of Learning Strategies*

The notion of learner/learning strategies may be said to derive from the elusive question “What is it that successful language learners do which unsuccessful learners do not?” (Grenfell & Harris, 1999, p. 36). Thus, the ‘good language learner’ research

paved the way to the learner/learning strategies, the contributive and enhancing influence of which upon learning has been accepted in second/foreign language research (e.g., Grenfell & Harris, 1999; Oxford, 1990; Wenden & Rubin, 1987). However, there has been some confusion and disagreement over appropriate ways of defining language learning strategies. Since the word 'strategy' has always been a central part of the discussion in the literature, and for the time being, of this part of the current thesis, it is worth suggesting some definitions. According to a dictionary definition, a strategy is "a plan or device designed to achieve a specific goal or advantage" (Collier's dictionary, 1986, p. 986). Many definitions for learning strategies have been suggested in the scholarly literature. Wenden and Rubin (1987) define learning strategies as "strategies that contribute to the development of the language system which the learner constructs and affect learning directly" (p. 23). According to O' Malley and Chamot (1990), learning strategies are "special thoughts and behaviors that individuals use to help them comprehend, learn, or retain new information" (p. 1). Oxford (1990) also defines learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferrable to new situations" (p. 8). Some investigators have criticized Oxford's (1990) definition in that she does not consider the possibility of learners' being aware or unaware of the strategies they employ in the process of learning, and they have composed new definitions by adding some new points. Purpura (1997), for example, has defined learning strategies as "conscious and unconscious mental or behavioral activities in the process of second language acquisition" (p. 293). As can be clearly seen, there is some dispute over one common definition of the term. However, we can also conclude that the proposed



definitions of learning strategies in the literature exhibit more commonalities than differences. The points suggesting that they contribute to the process of language learning and development, and that they are specific tactics taken by the learners so as to learn the target language, may be regarded as the essence of a definition of learning strategies.

### *Classification of Learning Strategies*

Ellis (1994) considers the categorization of learning strategies one of the most successful areas of second language learning strategy research. Early research sought to list learning strategies used by successful language learners (e.g., Naiman et al., 1978; Rubin, 1975; Stern, 1975). However, later research has tried to systemize findings by grouping learning strategies into categories and further sub-categories. The scholarly literature reports two major schemes of classification. The first is O'Malley and Chamot's classification scheme (e.g., O'Malley & Chamot, 1990; O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985); the other is Oxford's categorization scheme (e.g., Oxford, 1990).

O'Malley and Chamot (1990) based their scheme upon Anderson's (1983, 1985) information processing model. Their category scheme has three major domains of learning strategies. Meta-cognitive strategies are executive skills applied by learners to control, oversee and regulate their language learning, such as advance organizers, self-monitoring and selective attention. The second category, cognitive strategies, is associated directly with the processing of information to enhance the learning process, such as resourcing, deduction and translation. Social/affective strategies relate to social-mediating activities and interaction with others, namely cooperation

and asking for clarification. Figure 1 on page 32 shows and defines these strategies in detail.

Oxford's categorization scheme has been described as the most comprehensive classification of learning strategies to date (Ellis, 1994). Synthesizing previous classification schemes and strategy lists (e.g., Naiman, Frohlich, Stern, & Todesco, 1978; Rubin, 1975; Wenden & Rubin, 1987), Oxford (1990) developed a comprehensive taxonomy of learning strategies. Her classification scheme is first divided into two main classes, direct and indirect. The first group of strategies is called direct as the learners use the target language directly when they are engaging in the use of the strategies included in this group. The other one is termed indirect because they do not involve direct use of the target language. These two major strategy categories are further divided into six sub-categories. These are memory strategies, cognitive strategies, compensation strategies (all included in direct strategies) and also metacognitive strategies, affective strategies and social strategies (all included in the indirect strategies).

Using memory strategies helps learners store and recall knowledge easily. Cognitive strategies refer to understanding, analyzing and producing the language. Compensation strategies are for filling in the missing information in the language acquisition process, and thus overcoming problems of language deficiencies. Metacognitive strategies help learners manage and regulate the learning process. Affective strategies relate to the psychology of humans, that is to say motivational, attitudinal and emotional needs and features of humans. Lastly, social strategies require learners to transact with others, and hence learning is promoted through interaction with others.

| Learning strategy                | Definition   |
|----------------------------------|--|
| <b>Metacognitive Strategies</b>  |  |
| Advance Organizers               | Making a general but comprehensive preview of the organizing concept or principle in an anticipated learning activity  |
| Directed Attention               | Deciding in advance to attend in general to a learning task and to ignore irrelevant distractors   |
| Selective Attention              | Deciding in advance to attend to specific aspects of language input or situational details that will cue the retentions of language input  |
| Self-Management                  | Understanding the conditions that help one learn and arranging for the presence of those conditions  |
| Advance preparation              | Planning for and rehearsing linguistic components necessary to carry out an upcoming language task   |
| Self-Monitoring                  | Correcting one's speech for accuracy in pronunciation, grammar, vocabulary, or for appropriateness related to the setting or to the people who are present                                 |
| Delayed production               | Consciously deciding to postpone speaking to learn initially through listening comprehension   |
| Self-Evaluation                  | Checking the outcomes of one's own language learning against an internal measure of completeness and accuracy  |
| <b>Cognitive Strategies</b>      |  |
| Repetition                       | Imitating a language model, including overt practice and silent rehearsal.   |
| Resourcing                       | Defining or expanding a definition of a word or concept through use of target language reference materials.  |
| Directed Physical Response       | Relating new information to physical actions, as with directives.  |
| Translation                      | Using the first language as a base for understanding and/or producing the second language  |
| Grouping                         | Reordering or reclassifying, and perhaps labeling, the material to be learned based on common attributes   |
| Note Taking                      | Writing down the main idea, important points, outline or summary of information presented orally or in writing.  |
| Deduction                        | Consciously applying rules to produce or understand the second language  |
| Recombination                    | Constructing a meaningful sentence or larger language sequence by combining known elements in a new way  |
| Imagery                          | Relating new information to visual concepts in memory via familiar, easily retrievable visualizations, phrases, or locations.  |
| Auditory Representation          | Retention of the sound or a similar sound for a word, phrase, or longer language sequence  |
| Keyword                          | Remembering a new word in the second language by (1) identifying a familiar word in the first language and (2) generating easily recalled images of some relationship between the new word |
| Contextualization                | Placing a word or phrase in a meaningful language sequence   |
| Elaboration                      | Relating new information to other concepts in memory.  |
| Transfer                         | Using previously acquired linguistic and/or conceptual knowledge to facilitate a new language learning task.   |
| Inferencing                      | Using available information to guess meanings of new items, predict outcomes, or fill in missing information   |
| <b>Socioaffective Strategies</b> |  |
| Cooperation                      | Working with one or more peers to obtain feedback, pool information, or model a language activity  |
| Question for Clarification       | Asking a teacher or other native speaker for repetition, paraphrasing, explanation, and/or examples  |

from O'Malley & Chamot, 1990, pp. 119-120

Figure 1 Learning Strategy Classification, O'Malley and Chamot

Oxford's six-sub category categorization scheme is further grouped into 19 classes, which are again divided into 62 strategies. Figures 2 and 3 below show these further sub-categorizations in full detail.

**INDIRECT STRATEGIES** (from Oxford, 1990, pp. 137, 141, 145)  
(Metacognitive, Affective, and Social Strategies)

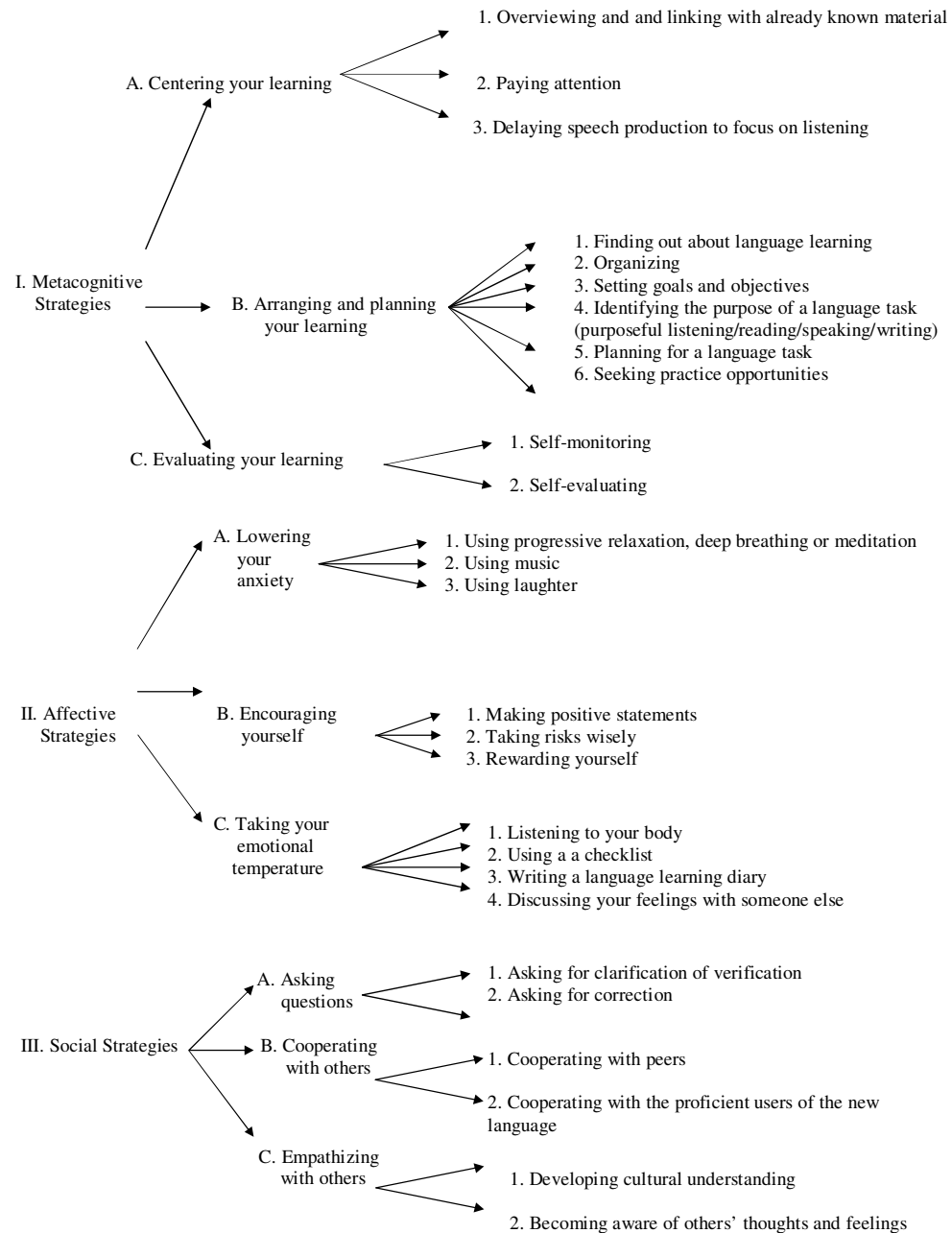


Figure 2 Learning Strategy Classification, Indirect, Oxford

**DIRECT STRATEGIES** (from Oxford, 1990, pp. 39, 44, 48)  
**(Memory, Cognitive, and Compensation Strategies)**

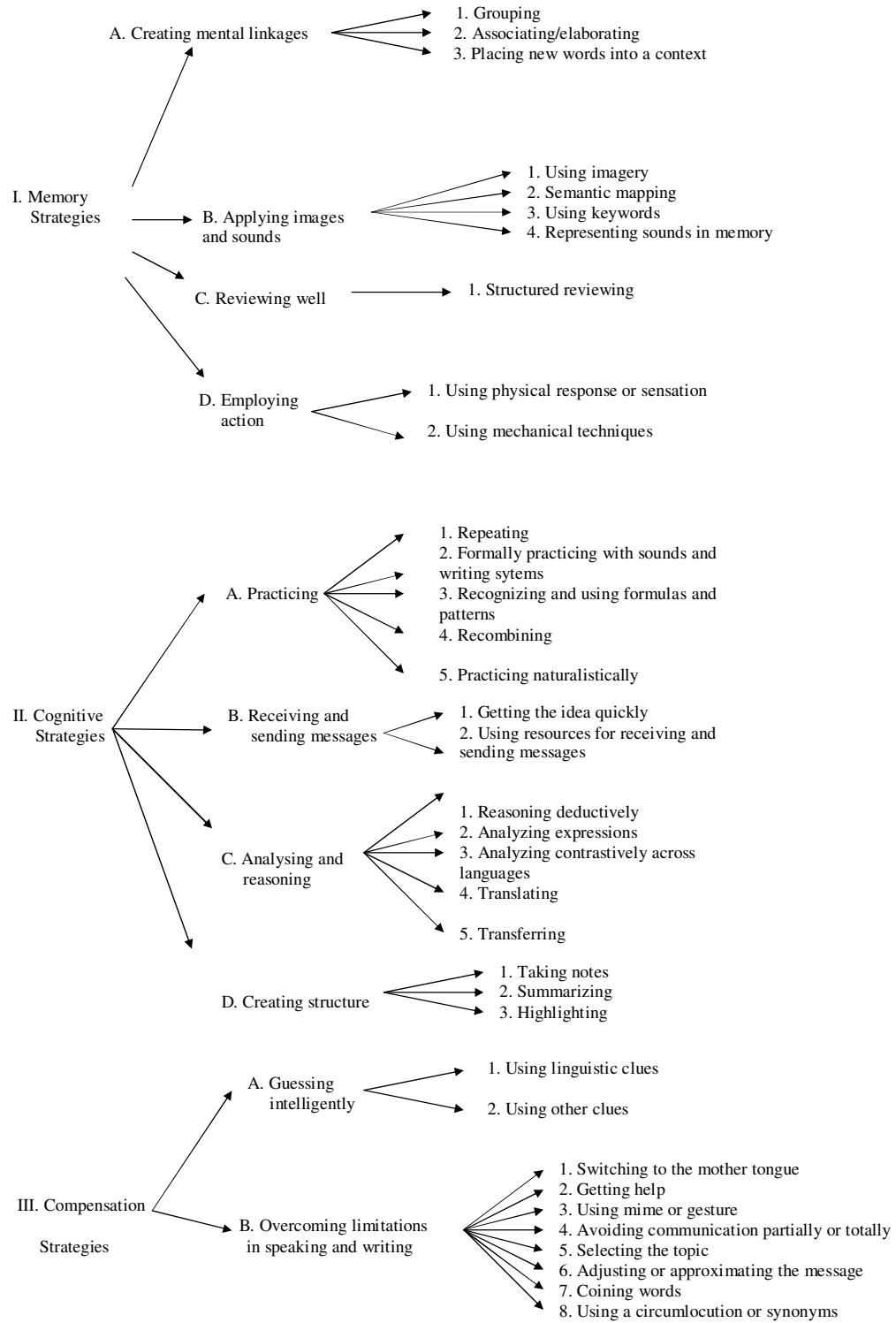


Figure 3 Learning Strategy Classification, Direct, Oxford

As can be clearly seen, O'Malley and Chamot's (1990) and Oxford's (1990) classification systems overlap in a number of ways. The metacognitive and social/affective divisions are almost the same in both systems. As for the cognitive category, however, Oxford (1990) pulls memory strategies out and delineates a distinct strategy category, whereas O'Malley and Chamot (1985) include all strategies relating to memory skills into the category of cognitive strategies. Another difference is the sheer number of strategies in Oxford's categorization (1990) as compared to O'Malley and Chamot's (1990).

#### Learning Strategies in Relation to Language Skills

Cohen (1998) distinguishes between language *learning* and language *use* strategies. According to Cohen (1998), strategies of learning represent the steps consciously taken by the learners for the purpose of improving and enhancing the learning of a second language, whereas strategies of use are used to improve the use of this learnt knowledge. Zhang and Goh (2006) claim that "learning strategies serve as offline preparation for online performance, where use strategies come into play" (p. 202). This part of the literature review, reporting on learning strategies in terms of specific language skills, has tried to look at these strategies more from the learning perspective, although it is sometimes difficult, confusing and illogical to separate *use* and *learning* perspectives, especially in productive skill areas (e.g., speaking and writing). This uncertainty may be due to the fact that the ambiguity in the definition and classification of strategies is still going on in what investigators have considered as learning strategies in general or in specific skills. Therefore, I considered both aspects but with a priority given to the learning aspect.

Strategy researchers in the second language acquisition area have pointed out various issues, such as the general definition and description of learning strategies in general or in certain skills, attitudes and perceptions concerning these strategies, learners' awareness of them, strategy training and the application and effectiveness of learning strategies. In spite of the growing body of research especially on strategy instruction in recent years, for the purpose of this thesis, which examines learning strategies in relation to pronunciation ability, the researcher found it more relevant and appropriate to discuss the strategy research on other skills primarily in relation to strategy use.

#### *Learning Strategies in Relation to Reading*

In his study Lau (2006) explored four successful and four less successful students' actual reading strategy use during their reading process through think-alouds. The findings of the study indicated that good readers used more strategies and had a better knowledge of strategy use than poor readers. Poor readers were also found to dislike reading and they described their goals mostly as extrinsic rather than intrinsic. The researcher concluded that the lack of intrinsic motivation might be the reason for poor readers' comparatively lower use of reading strategies and their superficial and surface rather than in-depth analysis of the reading text, which, in turn, deprives them of better reading comprehension.

In her thesis study, Uzuncakmak (2005) investigated the differences between successful and unsuccessful learners, first with regard to their reported strategy use as measured by a reading questionnaire, and second to actual strategy use while performing two reading tasks. Successful and unsuccessful learners did not show significant differences in their reported strategy use, whereas they showed a great

variation with regard to the number and type of the strategies used while executing the reading tasks, with successful learners using more strategies and more types of strategies.

In another study of this type, conducted with bilingual learners, Rao, Gu and Hu (2007) investigated the general strategy use of successful and less successful readers at the primary school level. The main conclusion drawn from the study was that reading comprehension was strongly affected by the use of reading strategies, and strategy use distinguished successful learners from unsuccessful learners.

In their strategy research, Kolić-Vehovec and Bajšanski (2007) examined the effects of comprehension monitoring and perceived use of reading strategies as a predictor of reading comprehension. Comprehension monitoring seemed to be the main and most important predictor of reading comprehension. The perceived use of reading strategies, however, did not act as an important predictor of reading comprehension. In comparing the variables of grade and perceived proficiency level on the use of reading strategies, the researchers found no effect for grade level, but they did see an effect for perceived proficiency.

#### *Learning Strategies in Relation to Vocabulary skills*

One of the most widely cited studies in the arena of vocabulary learning strategies is Schmitt and Schmitt's (1993) study. In their study conducted with 600 Japanese learners of English, the researchers asked the participants to rate the five most useful strategies in a list of vocabulary learning strategies. Classifying the results according to a depth of processing continuum, the authors found that many of the highly rated strategy items occurred at the superficial end of the continuum,



while the poorly rated strategies fell at the deeper processing end of the continuum. Although they had not investigated the deep and surface processing strategies in relation to achievement, the researchers concluded by emphasizing the effectiveness of using vocabulary strategies for successful vocabulary learning.

Hogben and Lawson (1996) also investigated the vocabulary learning strategies of advanced foreign language students. During a think-aloud procedure, the participants reported on strategies they spontaneously used while performing a vocabulary activity in which they needed to learn some words. Immediately on completion of the think-aloud session, students' vocabulary acquisition was measured with a vocabulary test. The findings indicated that participants' overall strategy use correlated positively with their test scores, leading the investigators to suggest that strategy training should be incorporated in vocabulary instruction.

Mofareh (2005) also looked at vocabulary learning strategies, but this time the main concern was to investigate how gender, level of education and vocabulary proficiency level related to vocabulary learning strategy use. He found that females' reported strategy use far exceeded that of males in general, and females were more successful in terms of vocabulary proficiency. Education level and vocabulary proficiency played an important role in the choice of some strategies.

#### *Learning Strategies in Relation to Listening and Speaking Skills*

Kao (2006) looked at the overall listening comprehension strategy use of the students at a university in Taiwan and also the differences in strategy use between expert and poor listeners. Among several strategy categories, participants reported that memory strategies were the most employed. The results indicated significant differences in strategy use between successful and unsuccessful listeners, with

successful listeners reporting higher ratings for all strategy categories except social and affective categories.

A very similar type of study was conducted by Cinemre (1991) in a Turkish setting. Like Kao (2006), he sought to explore the differences between poor and good listeners with regard to their listening comprehension strategies. He concluded that efficient and inefficient listeners' preferences of listening strategy use showed a great deal of variation, with efficient listeners using more listening strategies.

The study conducted by Zhang and Goh (2006) is different from the others described in this section in that it looked at a combination of listening and speaking strategies. Zhang and Goh (2006) examined the relationship between the metacognitive knowledge of the usefulness of speaking and listening strategies and learners' reported use of them. Their findings revealed that participants were generally aware of the usefulness of strategies, but they did not consciously and actively use them for the purpose of better listening and speaking ability. However, the correlations between perceived use of the strategies and perception of their usefulness were statistically significant. Thus, the researchers concluded their article by suggesting strategy training focusing on both strategy awareness and actual strategy use to develop speaking and listening abilities.

#### *Learning Strategies in Relation to Writing Skills*

In Chamot et al.'s three-year longitudinal study (1988), the strategies used by successful and less successful students of Spanish while writing were investigated. Their preliminary results (across the period of one year) revealed that successful and less successful students used similar strategies. However, successful students were

found to use more strategies than their less proficient peers. Interestingly, they were also found to write more in comparison to less successful students.

Khaldieh (2000) investigated the learning strategies used by American learners of Arabic while carrying out writing tasks. Participants were asked to write the procedures and strategies they used while writing the essays assigned. The findings from the data analysis showed that all learners, proficient or less-proficient, actively used writing strategies. Interestingly, both type of learners made use of appropriate writing strategies in their writing tasks. However, the use of appropriate strategies did not enable poor learners to produce as good an essay as their successful peers.

Sullivan (2006) examined self-regulatory writing strategies employed by high achieving and low achieving writers and sought to explore similarities and differences in the types of these strategies between these writers. Both types of writers were found to be using all these strategies in all of these categories; however, high achieving writers used them more frequently. A final conclusion was drawn that it was the differences in the frequency of use and in the ways the participants employed these self-regulatory strategies that distinguished high achieving writers from low achieving ones.

#### *Learning Strategies in Relation to Grammar Skills*

The literature seems to include one particular study solely focusing on grammar learning strategies. Yalçın (2003) investigated the relationship between the use of grammar learning strategies and learner achievement in grammar. The results of his study revealed that there is no significant relationship between these two variables, as successful and less successful learners did not differ in their strategy use. Also examining the effects of gender and duration that students had taken English courses

upon grammar proficiency, the researcher found that gender showed variation by metacognitive and social/affective strategy use, with females using more strategies. However, there was no variation by cognitive strategy use. A longer duration of English learning was associated with greater metacognitive and cognitive strategy use, while no significant relationship was found on the social/affective category.

From the strategy studies of several language skills above, it would appear that learning strategy research has many venues to explore. Most studies solely focus on differences between successful and unsuccessful learners. They differ in the data collection and analysis tools (think-alouds and questionnaires) used; they make use of or they may add and investigate some other variables (grade or perceived proficiency) within the learning strategies framework. However, we can speculate on a common conclusion drawn by the majority of studies, that successful and unsuccessful learners generally engage in different types of strategies, which, in turn, brings different language learning outcomes. It would still be inappropriate to arrive at a conclusive answer or to make generalizations regarding strategic differences by just looking at the studies mentioned here.

What language skills area has not been mentioned so far? The answer to this question would be the starting point for the current thesis. Investigation into pronunciation learning strategies in second language learning has not been given much attention, as has also been the destiny of pronunciation as a teaching component in the foreign language curricula. Due to the concerns about how to teach pronunciation, and most prominently about whether we should really teach it, the field has not looked at second language pronunciation as a process in which learners themselves, in place of native speaker role-models or teachers, can be active

participants of their learning. In the next section, I will take a closer look at pronunciation and at the tactics or procedures that learners bring to their own learning.

## Learning Strategies and Pronunciation

### *Relevant Research Studies*

Though not great in number, a handful of studies have dealt with learning strategies in relation to the pronunciation of a second language. Some researchers have looked at merely pronunciation strategies (Derwing, 2002; Osburne, 2003). However, there is only one study to date which has examined both the strategies and their possible relation to pronunciation ability (Peterson, 1997). Derwing and Rossiter (2002) examined the perceptions of adult immigrants with regard to their pronunciation difficulties and the strategies they employed when they were faced with an oral communication breakdown. The researchers tried to elicit the participants' favorite strategies for repairing their communication breakdowns. They conducted individual structured interviews in which the participants were asked to respond to statements and questions regarding the communication problems they experienced in English. From their reflections about their typical responses (strategies) to communication problems, the researchers chose the pronunciation-specific strategies to discuss in their research, because a majority of participants viewed pronunciation as the main cause of their communication problems. Among these pronunciation-specific strategies were self-repetition, speaking slowly, speaking clearly and volume adjustment.

Osburne (2003) also investigated the pronunciation learning strategies of advanced second language learners, representing sixteen different native language groups. Each participant talked to the researcher about his language learning history and this conversation was recorded. This recording was then played back and listened to by the researcher and the participant together, and the researcher identified three moderate-length sentences selected at random. After reminding the participant of the content of the first selected sentence, the researcher asked him to say the sentence again by making his pronunciation as perfect as possible. The procedure continued with two more sentences. Immediately on the completion of this pronunciation task, the researcher had the participants report what they did to improve their pronunciation. The researcher coded and categorised these recorded statements into eight main strategy items which the participants used to repair and improve their pronunciation and communication. These eight strategies are local articulatory gesture or single sound (attention to articulatory phonetics or single sounds), focus on sounds below the syllable level (attention to the clusters below the syllable level with no focus on articulations), focus on individual syllables (attention to the syllables), focus on prosodic structure (attention to suprasegmental features), global articulatory gesture (attention to voice quality settings), focus on paralinguistic (attention to voice dynamics, such as speed, volume and clarity), focus on individual words (attention to the pronunciation of a whole word), and focus on memory or imitation (miming or imitating other speakers).

Peterson (1997) investigated the pronunciation learning strategies employed by American learners of Spanish. Her actual focus was to examine the relationship between pronunciation ability and learning strategies. The participants were students

from the three levels of a university general Spanish course. Peterson (1997) modified the Strategy Inventory for Language Learning (Oxford, 1990) by adding 20 more new items out of her preliminary list of 44 items that had been documented both from the literature research and her quantitative research, using interviews and students diaries as data collection tools. Pronunciation ability was elicited using a reading aloud task. Following the data analysis, the conclusion was drawn that pronunciation learning strategy use correlated positively with pronunciation ability on two factors (functional/authentic practice strategies and reflection strategies) out of six. When the researcher was analyzing the data collected, she did not analyze the pronunciation learning strategy use results at each proficiency level separately. It was suggested that a further study should investigate a single language level, as not separating the language level and the pronunciation strategy use resulted in some questionable interpretations.

The studies described in this section all looked at the strategies in relation to pronunciation ability, but they did it in different ways. The first two looked at the strategies of pronunciation *use*, whereas the last one investigated the strategies of pronunciation *learning*. Derwing and Rossiter (2002) argued that many communication strategy studies generally concentrate on speaking in general; they have not focused on second language pronunciation per se. Therefore, Derwing and Rossiter (2002) prioritized pronunciation-specific issues in their study. Thus, their study might be thought as one step further from the previous communication strategy studies; however, the researchers still did not solely focus on pronunciation strategies. Pronunciation strategies were still considered as a type of communication strategy used to overcome communication problems deriving from pronunciation

mistakes. Accordingly, in their pronunciation strategy research, the focus was on the 'use', not on the 'learning' perspective of these strategies. Likewise, Osburne's (2003) study investigated pronunciation strategies of use rather than learning, as students were asked to reflect on what they did to improve and beautify their pronunciation. Perhaps, through a detailed observation, some of these strategies might be transferred to the related group of learning strategies; however, these two studies do not provide us with as full a picture as possible of strategies of use, since some strategies were disregarded or not touched on at all during the data analysis processes.

Finally, with the exception of Peterson's (1997) study, no previous study has solely focused on the strategies of pronunciation learning and the relationship between these strategies and pronunciation ability. However, her study falls short in some ways in giving a clear understanding of the nature and direction of this relationship. She has concluded that both language level and pronunciation learning strategy use correlate positively with pronunciation ability. As the relationship between pronunciation learning strategy use and pronunciation ability is the major focus of the study, these two positive correlations lead to questions about the interpretation of the results, as to which one (i.e. strategy use or language level) is more effective or the main determiner. Peterson's conclusion may be due to the absence of analyses according to three distinct proficiency levels, which would have provided information about the main factor influencing the participants' pronunciation ability. In addition, due to the heavy load of strategy items on her inventory, she was not able to concentrate on particular strategy items; rather, she talked about factors (i.e. statistical groupings of all items in the inventory). It should



be noted that the positively correlated factors do not only include items of pronunciation learning, but rather only 20 pronunciation-specific items plus 80 items from the original SILL. Thus, it is not possible to arrive at a conclusive explanation about the nature and the direction of the relationship between pronunciation ability and pronunciation learning strategy use at the overall or particular item level. Apart from this concern, further studies should also answer the question of what learning strategies can help to account for differences in pronunciation ability. Further investigation in different settings, with different first and target languages, is also needed to gain a better understanding of this issue.

*The Offerings of the Strategy Studies in terms of Specific Language Skills for the Current Line of Research*

From the seventeen studies described under various skills above, it would appear that strategy research is a flourishing area of research in second language acquisition. However, many questions remain to be answered and investigated. Thus, it would be inappropriate to put a final word on the research questions explored above. Further, the research area is such a vast ocean that, there are always a number of unknown islands to discover and look for. The strategy studies of specific skills above have touched upon several different aspects: some studies looked at the differences in strategy use between successful and unsuccessful learners (e.g., Cinemre, 1991; Kao, 2006; Khaldieh, 2000; Lau, 2006; Rao et al., 2007) while others (e.g., Lau, 2006; Uzuncakmak, 2005; Zhang & Goh, 2006) have sought to examine the differences among learners in some other respects, such as motivation, grade level and perceived level of proficiency. Lau (2006) and Zhang and Goh (2006) have compared

perception (knowledge) of the usefulness of strategies with reported strategy use. Uzunçakmak (2005) has also compared reported strategy use with actual strategy use through think-alouds. As can be clearly seen, the studies have made use of different data collection and analysis methods, including think-alouds, introspection and questionnaires. All of the studies except two (e.g., Khaldieh, 2000; Yalcin, 2003) have concluded that good learners use these strategies more frequently in comparison to poor learners. It is also safe to conclude from the results of most studies that the quality of learning is affected by the use of learning strategies; learning strategies enhance second language learning. What about pronunciation learning strategies? The experimental designs, data analysis procedures and the findings of the previous strategy studies enable us to better see our options in the strategy research of pronunciation learning.

### Conclusion

As mentioned above, research on learning strategies in terms of pronunciation is still in its infancy and thus inconclusive. Much research is needed in this area to increase our understanding of the procedures and processes learners are involved in while learning second language pronunciation. A more interesting research venue would be the investigation of the relationship between these strategies used by second language pronouncers and pronunciation ability. There are many ways to follow as suggested by previous strategy studies. One thing that has not been investigated so far in the studies above is a kind of comprehensive investigation conducted at the particular strategy item level. Therefore, this thesis will try to shine more light on pronunciation learning strategies used by second language learners with particular attention to the investigation of the relationship between strategy use

and pronunciation ability at both overall and individual item levels. The next chapter presents the methodology of the study that seeks to fill that gap in the literature. It will describe the participants, setting, data collection and analysis tools of the current study in detail.

## CHAPTER III: METHODOLOGY

### Introduction

This thesis intends to give a detailed description of pronunciation learning strategies employed by Turkish learners of English and examine the relationship between pronunciation ability and use of pronunciation learning strategies. This study also examines the way a number of other variables may relate to pronunciation ability and pronunciation learning strategy use. The research addresses the following questions:

1. What pronunciation strategies do Turkish learners of English employ?
2. What is the relationship between pronunciation ability and the extent of pronunciation learning strategy use?
3. What is the relationship between pronunciation ability and particular pronunciation learning strategy use?
4. How do a number of other variables (e.g., self-perception of pronunciation ability, perceived importance of pronunciation, gender, out-of-class exposure to English, length of English study and age at beginning of English study) relate to pronunciation ability? What is the relationship between pronunciation ability and each of these variables?
5. How do a number of other variables (e.g., self-perception of pronunciation ability, perceived importance of pronunciation, gender, and out-of-class exposure to English) relate to pronunciation learning strategy use? What is the relationship between pronunciation learning strategy use and each of these variables?

This chapter will provide information about the participants and setting of the study, the instruments used to obtain the data, the data collection procedures and the analysis of the collected data.

### Participants

The participants were 40 students of the English Language and Literature Department at Dumlupınar University (DPU) in Kütahya, Turkey. They were in the first year of their four-year degree program. This department was chosen for the study since the students were estimated to be novice learners with great zeal to learn more and develop themselves in English. Their proficiency level in English was estimated to be of upper-intermediate to pre-advanced level based on the entry requirements for the department. Their ages ranged between 18 and 22. As DPU is not an English-medium university and thus has no obligatory English preparatory training, the participants of the study directly enrolled in the English Language and Literature Department after passing the university entrance examination administered by the Student Selection and Placement Center (ÖSYM). The students had no special phonetics or pronunciation courses previously; however, as they were English Department students, they were expected to pay attention to their pronunciation of English.

The participants were selected using a random sampling procedure in which a total of 80 first-year students of the department were assigned a number on their class attendance list, and then the computer was asked to generate 40 random numbers (i.e., computerized random number generation). The researcher also identified ten more students for a list of alternates to use in case of absentees. The selected 40 students were invited to participate in the study, and they were asked to

sign a consent form. This was to guarantee the number of the participants and not to oblige the learners to attend involuntarily. This chosen sample of study participants was thought to be a good representative of its target population, namely the novice students of English Departments at the university level in Turkey. The demographic information of the study participants is shown in Tables 1, 2 and 3.

| <b>Gender</b> | No | %    |
|---------------|----|------|
| Female        | 33 | 82.5 |
| Male          | 7  | 17.5 |

| <b>Age</b> | No | %    |
|------------|----|------|
| 18         | 9  | 22.5 |
| 19         | 15 | 37.5 |
| 20         | 8  | 20   |
| 21         | 7  | 17.5 |
| 22         | 1  | 2.5  |

Table 1 Gender and age

| <b>Years of Learning</b> | No | %    |
|--------------------------|----|------|
| 5                        | 2  | 5    |
| 6                        | 2  | 5    |
| 7                        | 2  | 5    |
| 8                        | 6  | 15   |
| 9                        | 16 | 40   |
| 10                       | 7  | 17.5 |
| 11                       | 3  | 7.5  |
| 12                       | 2  | 5    |

Table 2 Years of English study

| <b>Age</b> | No | %    |
|------------|----|------|
| 7          | 1  | 2.5  |
| 9          | 5  | 12.5 |
| 10         | 21 | 52.5 |
| 11         | 7  | 17.5 |
| 12         | 2  | 5    |
| 14         | 2  | 5    |
| 15         | 2  | 5    |

Table 3 Age at beginning of English study

## Instruments

A quantitative research design was used in this descriptive and explorative research study. Instruments used in the study included a strategy inventory for learning pronunciation, a background questionnaire attached to this inventory (both adapted from Peterson, 1997) and two pronunciation elicitation tasks.

### *The Strategy Inventory for Learning Pronunciation (SILP)*

This study was an extension of a previous study (Peterson, 1997) in that it extended the work on pronunciation learning strategies into a different setting, language and culture. On this basis, Peterson's (1997) preliminary list of 44 pronunciation learning strategies (see Appendix A for the list) documented from the literature, interviews, and student diaries was adapted to use as a data collection tool in the current study. These 44 items, which were given in the form of phrases by Peterson in her thesis study, were first put into sentence forms. The researcher then examined these 44 strategy items with several colleagues. Eleven new items were proposed; two items were deleted; and three were assigned to different categories after this examination (see Appendix B for the relevant changes). The researcher also changed the name of the category of *social* to *cooperation* as it was felt to be more appropriate. The strategy items were also combined with a Likert scale response using a three-interval scale of *Rarely/Never*, *Sometimes* and *Frequently*. This new list (see Appendix C for the complete English version) was then checked by an expert native speaker teacher in order to confirm content validity. This expert teacher recommended the translation of the questionnaire so that the students could understand the items better. The questionnaire, written in English, was translated into Turkish through the back translation process. A colleague at DPU translated the

questionnaire into Turkish first. Another colleague at the same university again translated the Turkish version into English. After the back translation and the original version were compared by a native speaker, who is also an English teacher, necessary changes were made in the Turkish version. The revised Turkish version (see Appendix D) was then pilot tested with ten randomly selected first year students of the English Language and Literature Department of DPU prior to actual data collection. The students were asked to write, somewhere at the bottom of the inventory form, any other pronunciation learning strategies that had not been covered or written in the strategy inventory. However, participants reported no new strategy items. After discussing and evaluating the results of the pilot study with the thesis advisor, only one item (i.e., “*I practice words using flash cards*”) was subtracted due to its low rating frequency. The pilot study was very helpful in giving an idea about the time required to administer the SILP. The SILP had an alpha reliability coefficient of 0.7114 for the pilot study.

#### *The Background Questionnaire*

The background questionnaire accompanying Peterson’s (1997) SILL was also adapted. The background questionnaire for the current study (see Appendix E), designed to elicit information on the secondary variables of the study, namely self-perception of pronunciation ability, perceived importance of pronunciation, gender, out-of-class exposure to English, length of English study and age at beginning of English study, was attached to the form of the strategy inventory for learning pronunciation (SILP). English was used for the background questionnaire, and it was pilot-tested together with the SILP.



### *Pronunciation Elicitation Tasks*

Pronunciation ability was elicited by means of two oral tasks (see Appendix F). Among the elicitation tasks used in the literature, ranging from the reading aloud of sentences, words or paragraphs to extemporaneous speech samples, two techniques, a read-aloud of a diagnostic accent inventory passage and a more extemporaneous conversation, were chosen for the study. Several research studies similarly used more than one elicitation technique (e.g., Bongaerts, Planken, & Schils, 1995; Moyer, 1999; Thompson, 1991). Prator and Robinett's (1985) accent inventory, which is a reading passage to diagnose elements of foreign accent in non-native speakers of English, was used as the first elicitation task. The second elicitation task, designed as a free-response activity, was adopted from Moyer (1999). Participants were asked to choose one of five possible topics requiring some personal recount. The elicitation tasks were also piloted with the same group of ten participants from DPU. The participants had been allowed to quickly read the passage once before their voices were recorded in the pilot study; however, as they tended to waste a lot of time to understand the meaning of the whole passage and to practice it, the researcher decided to invite them to read the passage directly for the actual study.

### *The Rating Procedure and Pronunciation Rubric*

Two American native-speaker judges were asked to rate all 80 speech samples (i.e., 40 read-alouds and 40 conversations) for pronunciation ability, using a 9-point EAI scale (equal appearing interval scale). The researcher modified Bongaerts et al.'s (1997) 5-point and Peterson's (1997) 7-point scales and created her own 9-point rating scale. Prior to the rating task, the pronunciation judges received written instructions (see Appendix G). The rating sessions were conducted on an individual

basis in the free times of the judges. The ratings that were within one point of each other were accepted for the rating procedure and those scores were averaged to produce one score. A third rater was asked to judge the speech samples that the first two raters had disagreements over (i.e., the scores that were different by more than one point).

### Procedure

Before data collection could proceed, permission was sought from the English Language and Literature Department of Dumlupınar University, which is the researcher's home institution. The administration of the department accepted this request, and the researcher was allowed to work with the first-year classes of the department. Both the pilot and the actual study were conducted with the first-year students in the English Language and Literature Department at DPU. The strategy inventory for learning pronunciation (SILP) was then pilot-tested with ten students from the English Language and Literature Department of Dumlupınar University (DPU) in Kütahya, Turkey.

Forty students were selected randomly from a population of the 80 first-year students of the mentioned department for the actual study. The students were sent advance notices a few days before the actual data collection and were asked to sign the accompanying consent form (see Appendix G). The advance notices included some information about the purpose and nature of the study. This was believed to create a positive atmosphere for the administration of the data collection procedures. Students were also informed that their responses would not affect course grades, and therefore they were requested to answer honestly.

The first main data collection procedure was the administration of two pronunciation elicitation tasks. Participants were tested individually in a quiet classroom in their department, and their performances in the two elicitation tasks were recorded. They were given task sheets which included the pronunciation elicitation tasks. They were first instructed to read aloud the accent inventory at their normal rate and volume. After the participants had completed reading the inventory in turns, there was a rest period, and then the second task of extemporaneous conversation took place. Participants used the second task sheet this time to choose one of the five assigned topics to speak about for several minutes. Participants who had completed the extemporaneous conversation part were not allowed to enter the class where the others were waiting for their turns under the guidance of one colleague. This was to limit any possibility of interaction which might cause the waiting participants' nervousness or rehearsal of the task topics. Participants were randomly assigned to task sequences in each type of task so that their speech sample sequences were different between the two tasks on the tapes, which was thought to prevent any possibility of rote designation of the participants' pronunciation abilities by the pronunciation judges while they were listening to and rating the speech samples.

The second main data collection procedure, administration of the pronunciation learning strategy inventory, which also included the background questionnaire designed to gather information about the secondary variables, took place just after the administration of the pronunciation elicitation tasks after a 15-minute rest period. Two colleagues from DPU administered the inventory in two separate classes of 20

participants each. The participants were asked to read and answer the whole inventory in 15 minutes.

Participants' speech samples were judged by two native speakers on the nine-point scale ranging from 1 (very strong foreign accent) to 9 (no foreign accent at all) using a holistic scoring method. Raters were instructed to use any number along the nine-point scale to rate the speech samples. The raters first assigned an interval point on the scale for each task. Their ratings were within one point of each other in 60% of the cases for the read-alouds (24 out of 40 cases) and 72.5 % of the cases for the conversations (29 out of 40 cases). The scores that were different by more than one point were decided by a third rater. For the read aloud tape, the ratings given by each rater for this one task were first averaged for individual participants, thus making one read aloud score for the participants. The same procedure was followed for the extemporaneous conversation part, and again participants received one extemporaneous conversation score. A mean rating was then averaged between the two tapes (i.e., the two types of elicitation tasks), resulting in an average pronunciation score for each participant (see Figure 4).

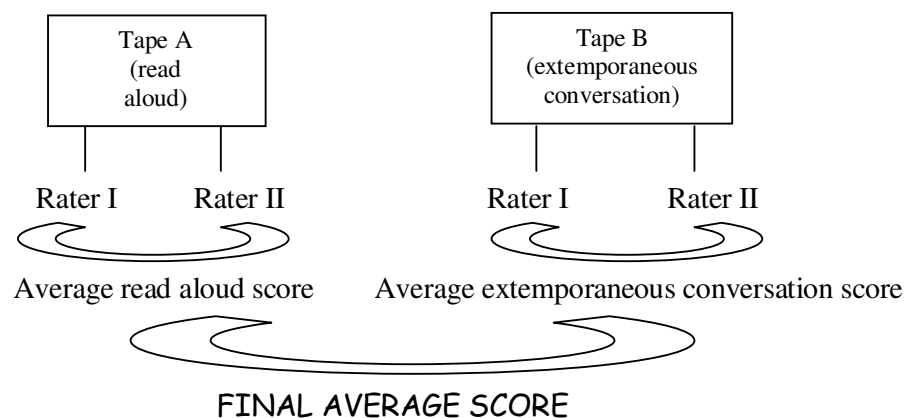


Figure 4 Final scoring of the two pronunciation elicitation tasks for an individual participant

## Data Analysis

The study made use of two main analysis procedures, descriptive and inferential statistics. The Statistical Package for Social Sciences (Version 11.5) was used to analyze all the data. For the purpose of research question one (RQ1), descriptive statistics (frequencies and percentages) were calculated first to see overall patterns of pronunciation learning strategies used by the participants. The researcher also looked at strategies in terms of each particular one and also sub-categories, in order to see what strategies and what type (sub-category) of strategies students tend to favor over others. In order to answer RQ2, the notion of extent of strategy use was handled in terms of four variables, namely number of strategies used on the whole SILP, number of strategies used on the six SILP sub-categories, overall frequency means on the whole SILP and sub-category frequency means on the SILP (see Figure 5).

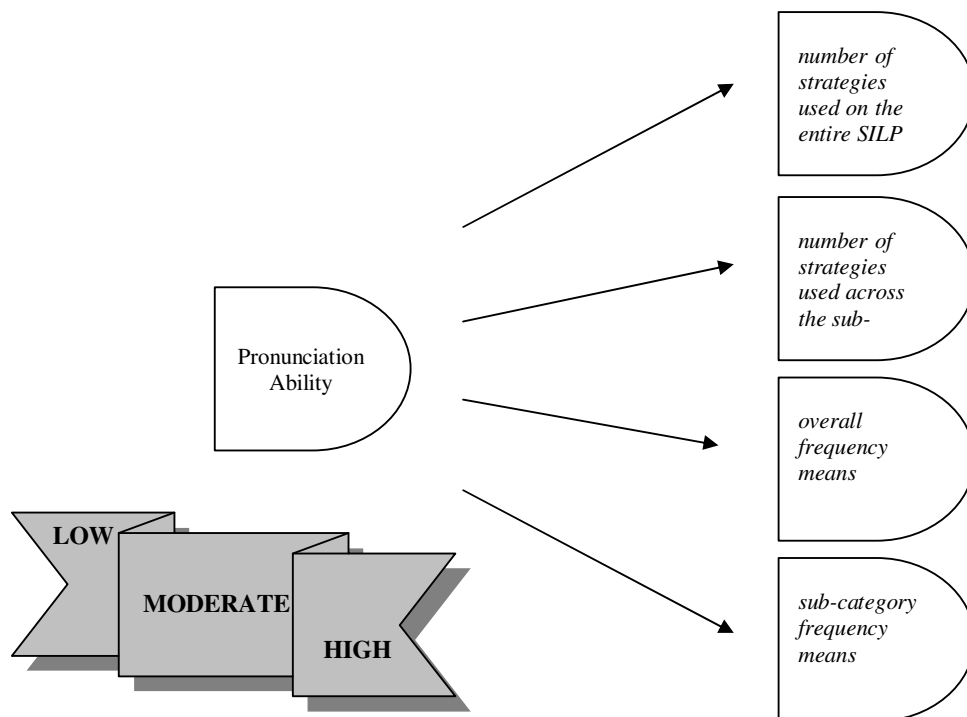


Figure 5 Relationships explored by RQ 2

One-way analyses of variance (ANOVAs) were used to determine the relationships of each of these four variables with learners' pronunciation ability (scores). Post-hoc tests were also conducted to investigate where any difference occurred.

In order to answer RQ3, chi-square tests were used to examine the relationship between pronunciation ability and each of the pronunciation learning strategy items. Before running the chi-square tests, the researcher first categorized the responses on the three-point Likert scale. In this respect, responses of 3 went under the category termed '*high strategy use*'; responses of 2 were labeled '*medium strategy use*', and responses of 1 were categorized as *low strategy use*. The number of participants at each pronunciation ability level (high, moderate and low) reporting their frequencies of each particular strategy was crosstabulated and summarized as shown in Figure 6 below prior to the administration of chi-square tests. After the strategies of significant and non-significant variation were identified, the researcher categorized the strategies of significant correlation into positive variation, negative variation and mixed variation. As for the strategies whose frequency of use did not show significant variations across the three pronunciation ability levels, the researcher looked at the frequencies of use on a scale of 1 to 3 to compare the extent to which these strategies were used relatively frequently and infrequently by students in general. The point in using such a method of classification was to show that a strategy might be popular (i.e., used with high frequencies) among both proficient and less proficient pronouncers but might not distinguish proficient from less proficient ones. Strategies whose frequencies of use did not show a significant variation across the three levels of pronunciation ability were categorized in one of three ways:

- If the mean score was between 2.5 and 3 for a particular strategy, it was classified as *frequently used*.
- If the mean score was between 1.5 and 2.4 for a particular strategy, it was labeled as *moderately used*.
- If the mean score was between 1 and 1.4 for a particular strategy, it was categorized as *infrequently used*.

| Strategy<br>Item 1, 2,<br>3... | <i>high strategy<br/>use</i> | <i>medium<br/>strategy use</i> | <i>low strategy<br/>use</i> |
|--------------------------------|------------------------------|--------------------------------|-----------------------------|
| High                           | n                            |                                |                             |
| Moderate                       |                              |                                |                             |
| Poor                           |                              |                                |                             |

Figure 6 The number of participants at each proficiency level (high-moderate-low) in terms of their reported frequencies of each strategy item

The next analysis was undertaken to explore the relationship, investigated by RQ4, between pronunciation ability (high, moderate and low) and four secondary variables of self-perception of pronunciation ability (*poor – fair – good – excellent*), perceived importance pronunciation (*not so important – somewhat important – very important*), gender (*female – male*), and out-of-class exposure to English (*very little-some - a lot*), again by means of Pearson chi-square tests. The relationships of the two variables, length of English study and age at beginning of English study to pronunciation ability were explored through ANOVAS. As a final step, for the purpose of RQ5, the relationship between pronunciation learning strategy use and all the secondary variables in question was explored by means of ANOVAs and independent samples t-tests.

## Conclusion

This chapter on methodology presented information on the participants, instruments, data collection and analysis procedures. In the next chapter, the results of the data analysis will be presented.



## CHAPTER IV: DATA ANALYSIS

### Overview of the Study

The main purpose of this study was to investigate the relationship between pronunciation ability and use of pronunciation learning strategies and also to give a detailed description of pronunciation learning strategies employed by Turkish learners of English. This research also sought to examine the way a number of other variables might relate to pronunciation ability and pronunciation learning strategy use. This chapter presents the results of the data collected and analyzed to address the following research questions:

1. What pronunciation strategies do Turkish learners of English employ?
2. What is the relationship between pronunciation ability and the extent of pronunciation learning strategy use?
3. What is the relationship between pronunciation ability and particular pronunciation learning strategy use?
4. How do a number of other variables (e.g., self-perception of pronunciation ability, perceived importance of pronunciation, gender, out-of-class exposure to English, length of English study and age at beginning of English study) relate to pronunciation ability? What is the relationship between pronunciation ability and each of these variables?
5. How do a number of other variables (e.g., self-perception of pronunciation ability, perceived importance of pronunciation, gender, and out-of-class exposure to English) relate to pronunciation learning strategy

use? What is the relationship between pronunciation learning strategy use and each of these variables?

This study was conducted with 40 first year students in the English Language and Literature Department at Dumlupınar University (DPU) in Kütahya, Turkey, with data being gathered via a strategy inventory for learning pronunciation, a background questionnaire attached to this inventory (both adapted from Peterson, 1997) and also two pronunciation elicitation tasks. A 52-item strategy inventory for learning pronunciation (SILP) was administered to students in order to gather the data on their pronunciation learning strategy use. The pronunciation ability of the participants was elicited through two different types of oral tasks. Data concerning the secondary variables were drawn from a background questionnaire accompanying the strategy inventory.

#### Data Analysis Procedures

The results of the questionnaires and pronunciation elicitation tasks were analyzed statistically. In the preliminary reliability analysis, the questionnaire (inventory) was found to have an alpha coefficient of .8548. Descriptive statistics were calculated using SPSS (version 11.5) in order to see the overall patterns of strategies used by study participants. Before running the descriptive statistics, the researcher first defined the strategies of *use* and *no use* by labeling the responses of 1 on the three-point Likert scale *no use*, and responses of 2 and 3 *use*. During this stage of data analysis, frequencies and percentages were determined for each inventory item and also for sub-categories, in order to see what strategies and what type (sub-category) of strategies students tend to favor over others. As a result of these analyses, the ten most used and the ten least used strategy items were identified. A

frequency mean for all participants in the range of 1.00 - 3.00 on the entire SILP and the six SILP sub-categories was also reported. Frequencies and percentages were also calculated to investigate the total number of strategies used by each participant in terms of the whole SILP and the six sub-categories.

Variation in mean strategy use in terms of frequency across the entire SILP and the six SILP sub-categories by the three pronunciation proficiency levels (high-moderate-low) was explored using one way analyses of variance (ANOVAs), as were the differences in mean strategy use in terms of the number of strategies used on the whole SILP and the six SILP sub-categories. The significance level was set at  $p < .05$  throughout the study.

Pearson chi-square tests were used to examine each SILP item for significant variation by pronunciation ability level. Before running the chi-square tests, responses of 3 on the three-point Likert scale were labeled '*high strategy use*'; responses of 2 were labeled '*medium strategy use*', and responses of 1 were categorized as *low strategy use*. Where significance was observed at .05, the percentages of participants at each pronunciation ability level (high-moderate-low) reporting high use (responses of 3), medium use (responses of 2), or low use (responses of 1) of each of the individual strategy items were analyzed.

When the chi-square tests showed a significant relationship for any strategy in question, it was assigned to one of three categories. The researcher classified the strategy items in question as showing positive variation if there was a regular staircase pattern, in which the percentages of participants reporting high use increased as the pronunciation ability scores (levels) of the participants increased, and correspondingly the percentages of participants reporting low use increased as

the pronunciation proficiency scores (levels) of the participants decreased (see Figure 7 for an example of such patterns). A strategy item was classified as showing negative variation when participants who had poor pronunciation abilities reported greater use of this strategy than their more proficient peers, and participants with higher pronunciation abilities reported less use of a particular strategy than their less proficient peers did (see Figure 8 for an example of such patterns). Some items, though they showed significant correlation by proficiency level, did not exhibit either of the regular patterns above, and hence a non-stairstep pattern emerged. Such strategies were categorized as showing mixed variation.

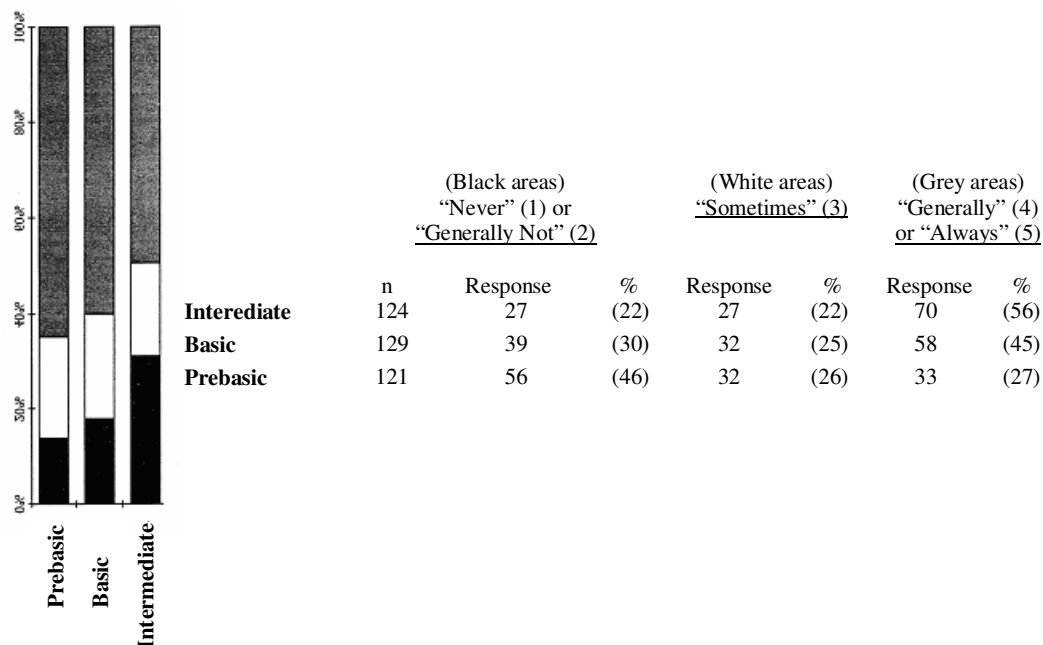


Figure 7 An example of regular stairstep pattern classified as showing positive variation (from Green & Oxford, 1995, p. 275)

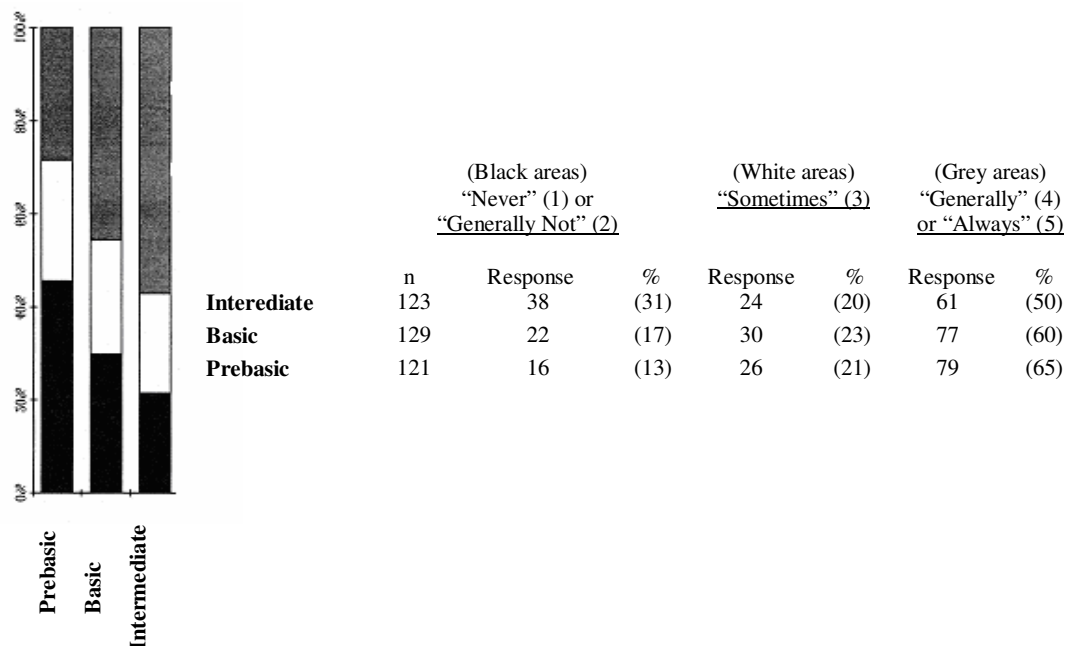


Figure 8 An example of regular staircase pattern classified as showing negative variation (from Green & Oxford, 1995, p. 276)

When there was no significant relationship for a particular strategy item across the three pronunciation proficiency levels in the chi-square tests, the researcher looked at the mean frequency of use for each individual strategy item in order to show the popularity of a particular strategy item despite its ineffectiveness in distinguishing the successful from less successful learners. These strategies of non-significant correlation were categorized according to their frequencies of use on the three-point Likert scale in one of three ways:

- If the mean score was between 2.5 and 3 for a particular strategy, it was classified as *frequently used*.
- If the mean score was between 1.5 and 2.4 for a particular strategy, it was labeled as *moderately used*.
- If the mean score was between 1 and 1.4 for a particular strategy, it was categorized as *infrequently used*.

Chi-square tests were used to determine the effects of certain secondary variables of nominal data, namely self-perception of pronunciation ability (*poor-fair-good-excellent*), perceived importance of pronunciation (*not so important-somewhat important-very important*), gender (*female-male*), and out-of-class exposure to English (*very little-some-a lot*) on pronunciation ability (*high-moderate-low*). ANOVAs were used to investigate the relationship of the two secondary variables of numeric data, the length of English study and age at beginning of English study with the participants' pronunciation abilities.

As a final analysis, t-tests and ANOVAs were conducted to explore the relationships between the secondary variables of the study and the use of pronunciation learning strategies. Pronunciation learning strategy use was approached in terms of both total number of strategies used and the frequency of use across the whole SILP, and the analyses were conducted separately for both variables.

The findings of the statistical analyses above will be analyzed in detail under five sections below. The first section explores RQ1, and data about the overall strategy use of the study participants are presented. The second section focuses on the results of the investigation of the relationship between the extent of strategy use and pronunciation ability (RQ2). The results of the ANOVAs exploring the relationships of each of four variables (i.e., *number of strategies used across the entire SILP, number of strategies used across the six SILP sub-categories, overall frequency means on the whole SILP and sub-category frequency means on the SILP*) with learners' pronunciation abilities (*high-moderate-low*) are presented in this section under four sub-sections. In the third section, the results of the chi-square tests are

presented to show the relationship between each of the pronunciation learning strategy items and pronunciation ability (RQ3). The purpose of the fourth section is to provide information about the relationship between pronunciation ability and the secondary variables in question (RQ4). The last section explores RQ5, and the results of the ANOVAs and t-tests are presented to show the relationships between pronunciation learning strategy use and each of the secondary variables in question.

## Results

*What pronunciation learning strategies do Turkish learners of English employ?*

### *Overall Patterns of Strategy Use by Study Participants*

The average score of the means of all the participants' responses on the whole strategy inventory was found to be 1.9048 on a scale of 1 to 3. In order to identify the mean frequency for all participants in the range of 1.00 - 3.00, the scale was divided into three segments. For the purpose of this analysis, the mean scores between 1 and 1.4 were designated as being low use, between 1.5 and 2.4 as medium use, and between 2.5 and 3 as high use. It can be seen that the range for medium is larger than the ranges for low or high. The reason for using such an uneven division among the ranges is that the ranges were based on which point on the Likert scale the frequency mean number would be closest to. With an even dividing spread (1-1.6; 1.7-2.3 and 2.4-3), a mean of 2.4, for instance, would be placed in the high range. However, it is closer to 2 than to 3. This kind of division, which creates a larger range for medium than high and low, is also acceptable in that a natural spread of scores has a bump in the middle range, thus making the bell curve. In this sense, a mean score of 1.9048

on the whole SILP implies that the English Language Department of DPU students' use of pronunciation learning strategies fell within the range of medium frequency (see Table 4). The averages for each sub-category of strategies also show that the study participants' mean frequency of use fell within the range of medium frequency of use across all sub-categories. Table 5 displays the mean frequencies for all participants on the six sub-categories.

|                              | N  | Minimum | Maximum | Mean   | Std. Deviation |
|------------------------------|----|---------|---------|--------|----------------|
| Individual-average frequency | 40 | 1.56    | 2.54    | 1.9048 | .22928         |

Table 4 Frequency mean for all participants on the whole SILP

|                                  | N  | Minimum | Maximum | Mean   | Std. Deviation |
|----------------------------------|----|---------|---------|--------|----------------|
| Memory-average frequency         | 40 | 1.33    | 2.83    | 1.9958 | .33861         |
| Cognitive-average frequency      | 40 | 1.50    | 2.59    | 1.9114 | .27174         |
| Compensation-average frequency   | 40 | 1.29    | 2.57    | 1.9464 | .29239         |
| meta-cognitive-average frequency | 40 | 1.00    | 2.38    | 1.7469 | .37177         |
| affective average frequency      | 40 | 1.40    | 3.00    | 2.0400 | .35720         |
| Cooperation-average frequency    | 40 | 1.25    | 2.50    | 1.8063 | .34198         |

Table 5 Frequency means for all participants on the sub-categories of SILP

The summary of the results of the average number of total strategies used and the distribution of this average by sub-categories is shown in Table 6 below. Looking at the number of strategies used in relation to the total number of strategies in each sub-category and at the mean frequencies in Table 5, it would be appropriate to conclude that the study participants appeared to favor the affective sub-category over the others. Conversely, the meta-cognitive sub-category was the least favored one.



|                             | Total N of Strategy | Minimum | Maximum | Mean  | Prcntg of use | Std. Dvtn |
|-----------------------------|---------------------|---------|---------|-------|---------------|-----------|
| Memory sub-category         | 6                   | 2       | 6       | 3,98  | 66.33         | 1,000     |
| Cognitive sub-category      | 22                  | 10      | 22      | 14,53 | 66.04         | 3,097     |
| Compensation sub-category   | 7                   | 2       | 6       | 4,78  | 68.28         | 1,050     |
| Meta-cognitive-sub-category | 8                   | 0       | 8       | 4,58  | 57.25         | 1,893     |
| Affective sub-category      | 5                   | 2       | 5       | 3,73  | 74.06         | ,933      |
| Cooperation sub-category    | 4                   | 1       | 4       | 2,75  | 68.75         | 1,006     |
| Number of strategies used   | 52                  | 23      | 49      | 34,32 | 66.00         | 6,228     |

Note: Percentage of use and mean show the amount of use in relation to how many strategies are in each category.

Table 6 The average number of strategies used on the whole SILP and SILP sub-categories

*The Ten Most Used and Ten Least Used Strategy Items (in terms of number of strategies used)*

In order to explore the ten most used strategies and ten least used strategies, frequencies and percentages of the responses given by 40 participants to individual items were computed, and the participants' responses were then rank ordered by percentages. Table 7 displays in detail the ten most used strategies along with their frequencies and percentages of use.

| Item No | Pronunciation Learning Strategies   | Frqncy of Use | Prent g of Use | Sub-ctgry |
|---------|---|---------------|----------------|-----------|
| 5       | I try to recall how my teachers have pronounced something                                     | 38            | 95             | MEM       |
| 6       | I practice a difficult word over and over.  | 38            | 95             | MEM       |
| 18      | I concentrate intensely on pronunciation while listening to the target language.              | 38            | 95             | COG       |
| 14      | I do exercises/practice to acquire target language sounds.                                    | 38            | 95             | COG       |
| 7       | I imitate native speakers' or my teachers' pronunciations.                                    | 37            | 92.5           | COG       |
| 16      | I capture pronunciation errors made by other Turkish speakers of English.                     | 37            | 92.5           | COG       |
| 28      | I mentally rehearse how to say something before speaking.                                     | 37            | 92.5           | COG       |
| 31      | I use the synonyms of words that I have difficulty in pronouncing.                            | 36            | 90             | COM       |
| 48      | I try to pay more attention to my pronunciation if my pronunciation is appreciated by others. | 35            | 87.5           | AFF       |
| 49      | I ask someone else to correct my pronunciation.   | 35            | 87.5           | COOP      |

Table 7 The ten most used strategy items by their frequencies and percentages of use

Table 8 below shows in detail, with frequencies and percentages of non-use, the ten least used strategies as reported by all the participants.

| Item No | Pronunciation Learning Strategies   | Frqncy of No-use | Prentg of No-use | Sub-ctgry |
|---------|---|------------------|------------------|-----------|
| 19      | I form and use hypotheses about pronunciation rules   | 34               | 85               | COG       |
| 38      | I seek out models for sounds.   | 33               | 82.5             | MET A     |
| 24      | I record my own voice to hear my pronunciation.   | 32               | 80               | COG       |
| 34      | I listen to the pronunciations of words from electronic dictionaries or so forth to correct my pronunciation.             | 31               | 77.5             | COM       |
| 37      | I read reference materials about target language pronunciation rules.   | 30               | 75               | MET A     |
| 1       | I use phonetic symbols or my own codes to remember how to pronounce words.  | 27               | 67.5             | MEM       |
| 15      | I practice sounds first in isolation and then in context.   | 27               | 67.5             | COG       |
| 25      | I notice or try out different accents and dialects of English.  | 26               | 65               | COG       |
| 33      | I check the phonetic symbols of the words from a dictionary for correct pronunciation when I have difficulty pronouncing. | 24               | 60               | COM       |
| 4       | I associate English pronunciations with Turkish pronunciations.   | 22               | 55               | MEM       |

Table 8 The ten least used strategy items by their frequencies and percentages of no-use

Looking at the frequency means on a three-point Likert scale on the entire SILP and the six SILP sub-categories, it has been revealed that the study participants' use of pronunciation learning strategies falls within the medium range on the whole inventory, as well as on all of the sub-categories. In addressing the question of which groups (categories) of strategies participants tend to favor over others, it is seen that the participants appear to prefer affective sub-category strategy items over others. This finding is apparent first in that the highest frequency means are seen in the affective sub-category. In addition, in comparing the sub-categorical percentages of use in relation to total number of available strategy items for each category, it is seen that the participants report using a greater percentage of the available affective strategies compared to the other sub-categories. However, as a last step in investigating the overall patterns of strategy use, the ten most and ten least used strategy items were presented along with their numerical values of use and non-use,

and it has been seen that there is only one affective strategy item among the ten most used strategies, in comparison to five cognitive strategy strategies. This different distribution appears to have resulted from the presence of more cognitive category items in the SILP.

*What is the Relationship between Pronunciation Ability and the Extent of Pronunciation Learning Strategy Use?*

The independent variable, pronunciation ability, which was represented by the scores gained in the pronunciation elicitation tasks, ranged from 2.75 to 7.75 on the nine-point assessment scale. To compose the three groups of pronunciation proficiency to be labeled as high, moderate and low, pronunciation scores between 2.75 and 3.75 were identified as being low proficiency, between 3.76 and 4.99 as moderate proficiency, and between 5.00 and 7.75 as high proficiency level. The reason for this uneven distribution among proficiency groups is the absence of the scores representing the two end points (1 and 9) on the assessment scale. The researcher rank ordered the scores first, and then looked for natural breaks in the spread of scores before assigning them to proficiency groups. The means for the pronunciation ability scores for the low, moderate and high proficiency groups are shown in Table 9 below.

| Pronunciation Proficiency Level | Minimum | Maximum | Mean   | Std. Deviation |
|---------------------------------|---------|---------|--------|----------------|
| High (n=14)                     | 5.00    | 7.75    | 5.5893 | .73777         |
| Moderate (n=19)                 | 4.00    | 4.75    | 4.3421 | .25291         |
| Low (n=7)                       | 2.75    | 3.75    | 3.3214 | .47246         |

Table 9 Descriptive statistics for the pronunciation ability scores of the three pronunciation proficiency groups

*Differences in terms of Number of Strategies Used on the Whole SILP*

Table 10 below shows the means for the total number of strategies used across the whole SILP for the three pronunciation proficiency groups. A one-way ANOVA showed that there was no significant difference in the total number of strategies used among the high, moderate and low pronunciation proficiency levels.

| Pronunciation Proficiency Level | Mean  | Std. Deviation |
|---------------------------------|-------|----------------|
| High (n=14)                     | 34.50 | 7.262          |
| Moderate (n=19)                 | 34.05 | 4.859          |
| Low (n=7)                       | 34.71 | 8.159          |

Table 10 Means for the three pronunciation proficiency groups, average number of strategies used on the entire SILP

*Differences in terms of Number of Strategies Used across the Six SILP Sub-categories*

Table 11 below presents the means for the total number of strategies used across the six SILP sub-categories for the three pronunciation proficiency groups. In comparing these means, it appears that the mean for the moderate group for memory strategies is lower than that of the other two groups, but a one-way ANOVA revealed that there is no significant difference among the pronunciation proficiency levels for any of the sub-categories.

| <b>Pronunciation Proficiency Level</b> |                | memory use/no use | cognitive use/no use | compensation use/no use | meta-cognitive use/no use | affective use/no use | cooperation use/no use |
|--|----------------|-------------------|----------------------|-------------------------|---------------------------|----------------------|------------------------|
| <b>High (n=14)</b>                     | Mean           | 4.29              | 14.29                | 4.71                    | 4.64                      | 3.71                 | 2.86                   |
|  | Std. Deviation | 1.204             | 3.429                | 1.437                   | 2.274                     | 1.139                | .864                   |
| <b>Moderate (n= 19)</b>                | Mean           | 3.74              | 14.63                | 4.89                    | 4.42                      | 3.68                 | 2.68                   |
|  | Std. Deviation | .806              | 2.216                | .809                    | 1.710                     | .885                 | 1.003                  |
| <b>Low (n=7)</b>                       | Mean           | 4.00              | 14.71                | 4.57                    | 4.86                      | 3.86                 | 2.71                   |
|  | Std. Deviation | 1.000             | 4.680                | .787                    | 1.773                     | .690                 | 1.380                  |

Table 11 Average number of strategies used on the six SILP sub-categories for the three pronunciation proficiency groups

#### *Differences in terms of Frequency of Use on the Whole SILP*

The means for overall frequency of strategy use for the low, moderate and high proficiency groups are presented in Table 12 below. It can be seen that the means for all groups fall into the range of medium frequency of use on the entire SILP. A one-way ANOVA was conducted on these means, and no significant difference was seen among the groups.

| Pronunciation Proficiency Level | Mean   | Std. Deviation |
|---------------------------------|--------|----------------|
| High (n=14)                     | 1.9025 | .21632         |
| Moderate (n=19)                 | 1.8957 | .20385         |
| Low (n=7)                       | 1.9341 | .33820         |

Table 12 Means for the three pronunciation proficiency groups, overall frequency of strategy use

#### *Differences in Frequency of Use of the Six Sub-categories of Strategies*

The summary of the means of the three proficiency levels on each SILP category is shown in Table 13 below. The table shows that the frequency means for all sub-categories fall into the range of medium frequency of use for all proficiency groups. A one-way ANOVA test conducted to see if there was any difference among the

means of the groups showed no significant differences in frequency of use in any sub-category.

| <b>Pronunciation Proficiency Level</b> |                | memory average frequency | cognitive average frequency | compensation average frequency | meta-cognitive average frequency | affective average frequency | cooperation average frequency |
|--|----------------|--------------------------|-----------------------------|--------------------------------|----------------------------------|-----------------------------|-------------------------------|
| <b>High (n=14)</b>                     | Mean           | 2.0595                   | 1.9026                      | 1.9286                         | 1.7411                           | 2.0143                      | 1.8036                        |
|  | Std. Deviation | .39553                   | .25393                      | .33031                         | .41447                           | .38801                      | .32785                        |
| <b>Moderate (= 19)</b>                 | Mean           | 1.9298                   | 1.9163                      | 1.9398                         | 1.7368                           | 2.0316                      | 1.8026                        |
|  | Std. Deviation | .27395                   | .24208                      | .26219                         | .34835                           | .33508                      | .33931                        |
| <b>Low (=7)</b>                        | Mean           | 2.0476                   | 1.9156                      | 2.0000                         | 1.7857                           | 2.1143                      | 1.8214                        |
|  | Std. Deviation | .39340                   | .40522                      | .32991                         | .39996                           | .39761                      | .42608                        |

Table 13 The means for the three proficiency groups, sub-categorical frequency of strategy use

In exploring the question of how pronunciation ability and pronunciation learning strategy use are related, ANOVAs conducted among the high, moderate and low pronunciation proficiency groups revealed no significant differences either in frequency of use or total number of strategies used across the entire SILP and the six SILP sub-categories. These analyses suggest that there is no relationship between the use of pronunciation learning strategies and pronunciation ability.

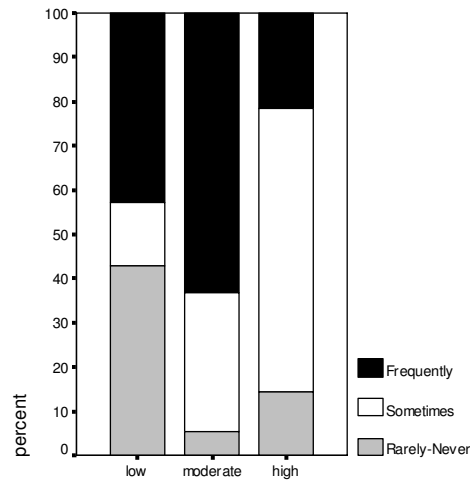
*What is the Relationship between Pronunciation Ability and Particular Pronunciation Learning Strategy Use?*

Pearson chi-square tests used to check all SILP items for significant variation by pronunciation proficiency level indicated that the relationship between frequency of use and pronunciation proficiency was significant or near-significant for only three of the 52 strategy items on the SILP. The remaining 49 strategy items did not vary significantly by pronunciation proficiency level.

*Strategies of Significant or Near-significant Variation by Proficiency Level*

Though this group of strategies is very few in number, it is worth looking at them in some detail. Of the three items that showed significant or near-significant variation (Item 1 ( $p < .054$ ), Item 21 ( $p < .021$ ) and Item 39 ( $p < .025$ )), none of them demonstrated either positive or negative variation. All three items indicated mixed variation across the three pronunciation proficiency levels.

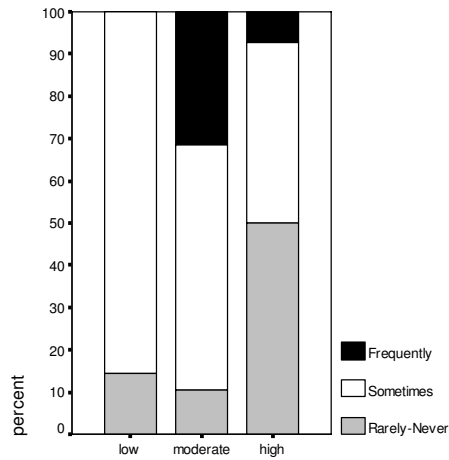
Two strategy items, Item 21 (I listen to tapes, television, movies or music; see Figure 9) and Item 39 (I purposefully focus my listening on particular sounds; see Figure 10) showed patterns in which neither the high nor the low pronunciation proficiency level students, but rather the level in between (e.g., moderate level) reported the highest level of strategy use. A similar pattern was observed with Item 1 (I use phonetic symbols or my own codes to remember how to pronounce words; see Figure 11) but in a reverse direction, in which neither the high nor the low pronunciation proficiency level, but rather the level in between (e.g., moderate level) reported the lowest level of strategy use.



|          | Never | Sometimes | Frequently |
|----------|-------|-----------|------------|
| High     | 14.3  | 64.3      | 21.4       |
| Moderate | 5.3   | 31.6      | 63.2       |
| Low      | 42.9  | 14.3      | 42.9       |

\***Note:** Frequently stands for high strategy use, sometimes is for medium use and rarely/never is for low use.

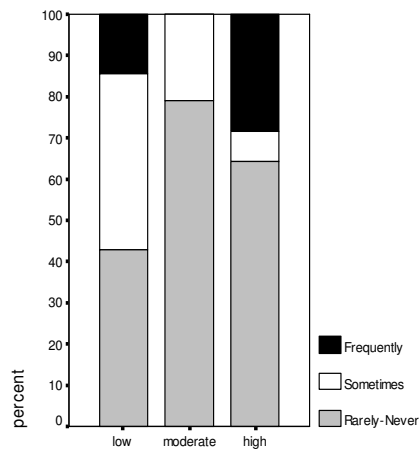
Figure 9 - Nonstairstep variation characterized as mixed - Item 21



|          | Never | Sometimes | Frequently |
|----------|-------|-----------|------------|
| High     | 50.0  | 42.9      | 7.1        |
| Moderate | 10.5  | 57.9      | 31.6       |
| Low      | 14.3  | 85.7      | 0          |

\***Note:** Frequently stands for high strategy use, sometimes is for medium use and rarely/never is for low use.

Figure 10 - Nonstairstep variation characterized as mixed - Item 39



|          | Never | Sometimes | Frequently |
|----------|-------|-----------|------------|
| High     | 64.3  | 7.1       | 28.6       |
| Moderate | 78.9  | 21.1      | 0          |
| Low      | 42.9  | 42.9      | 14.3       |

**Note:** Frequently stands for high strategy use, sometimes is for medium use and rarely/never is for low use.

Figure 11 - Nonstairstep variation characterized as mixed - Item 1



*Strategies of Non-Significant Variation by Proficiency Level*

Forty-nine of the 52 items (not including Item 1 of approaching significance above) did not demonstrate statistically significant differences in frequency of use by pronunciation proficiency level. These strategy items are grouped below according to their frequencies of use across the whole SILP (on a scale of 1 to 3). Five items were used frequently at all proficiency levels, 37 strategy items were used moderately at all proficiency levels, and 7 strategy items were used infrequently at all proficiency levels. The strategies are listed in descending order of popularity in Tables 14-16. Strategy items 5, 7, 44, 18 and 6 thus represent the most frequently used strategies of those which did not vary significantly by pronunciation proficiency level.

| Strategy Item  | Mean  | Std. Deviation |
|--|-------|----------------|
| <b><i>Strategies used frequently at all pronunciation proficiency levels (5 items)<br/>(used with frequencies between 2.5 and 3)</i></b> |       |                |
| 5 I try to recall how my teachers have pronounced something  | 2.70  | .564           |
| 7 I imitate native speakers' or my teachers' pronunciations.   | 2.53  | .640           |
| 44 I have a sense of humor about my mispronunciations.   | 2.48* | .599           |
| 18 I concentrate intensely on pronunciation while listening to the target language.  | 2.45* | .597           |
| 6 I practice a difficult word over and over.   | 2.45* | .597           |

\*These scores would be at 2.5 with rounding

Table 14 Items showing no significant variation by pronunciation proficiency level, high use

| Strategy Item  | Mean | Std. Deviation |
|--|------|----------------|
| <b><i>Strategies used moderately at all pronunciation proficiency levels (37 items)</i></b><br><b><i>(used with frequencies between 1.5 and 2.4)</i></b> |      |                |
| 28 I mentally rehearse how to say something before speaking.   | 2.35 | .622           |
| 31 I use the synonyms of words that I have difficulty in pronouncing.  | 2.33 | .656           |
| 48 I try to pay more attention to my pronunciation if my pronunciation is appreciated by others.   | 2.30 | .687           |
| 16 I capture pronunciation errors made by other Turkish speakers of English.   | 2.28 | .599           |
| 32 I use more words in the place of a single word that I have difficulty in pronouncing. (circumlocution)  | 2.25 | .707           |
| 12 I say things silently to myself.  | 2.25 | .707           |
| 10 I repeat silently.  | 2.25 | .776           |
| 49 I ask someone else to correct my pronunciation.   | 2.17 | .636           |
| 22 I concentrate intensely on pronunciation while speaking.  | 2.15 | .662           |
| 3 I associate the words that I do not know how to pronounce with the words that I do know how to pronounce.  | 2.15 | .700           |
| 35 I ask someone to pronounce the words that I have difficulty in pronouncing.   | 2.13 | .648           |
| 29 I avoid saying the word which I have difficulty in pronouncing.   | 2.10 | .632           |
| 23 I speak slowly to get the pronunciation right.  | 2.10 | .672           |
| 40 I purposefully focus my learning on particular sounds.  | 2.05 | .597           |
| 43 While preparing for a presentation, I write words that are difficult for me to pronounce very large in my notes.                                      | 2.05 | .846           |
| 30 I use mime or gesture for the words that I have difficulty in making their meanings clear with my pronunciation.                                      | 2.03 | .800           |
| 41 I try to memorize the sounds (or the alphabet) right away.  | 2.03 | .800           |
| 46 I encourage myself by making positive statements, such as “ My pronunciation is improving”  | 1.95 | .677           |
| 52 I tutor, teach, or help someone else to learn pronunciation.  | 1.95 | .504           |
| 13 I read out loud words, paragraphs or passages.  | 1.95 | .639           |
| 17 I notice mouth positions and watch lips.  | 1.93 | .797           |
| 11 I talk aloud to myself.   | 1.88 | .791           |
| 14 I do exercises/practice to acquire target language sounds.  | 1.87 | .607           |
| 26 I practice saying words slowly at first and then faster.  | 1.87 | .607           |
| 36 I try to learn something about phonetics.   | 1.78 | .660           |
| 47 I try to take risks in pronouncing words regardless of the possibility of making mistakes or looking foolish.   | 1.77 | .698           |
| 8 I repeat aloud after a teacher or native speaker.  | 1.75 | .707           |
| 42 I choose to memorize, rather than read, a presentation.   | 1.73 | .784           |
| 27 I notice contrasts between Turkish and English pronunciation.   | 1.70 | .758           |
| 45 I have fun with pronouncing target language words with native language pronunciation or vice versa. (saying Turkish la-te instead of / leit/)         | 1.70 | .785           |
| 4 I associate English pronunciations with Turkish pronunciations. (coke with kok-smell)  | 1.68 | .829           |
| 20 I try to imitate my teacher’s mouth movements.  | 1.65 | .802           |
| 9 I repeat aloud after tapes, television, a movie or electronic dictionaries.  | 1.58 | .675           |
| 51 I study with someone else.  | 1.58 | .549           |
| 2 I make up songs or rhymes to remember how to pronounce words.  | 1.55 | .597           |
| 50 I talk with people around me in English.  | 1.53 | .599           |
| 33 I check the phonetic symbols of the words from a dictionary for correct pronunciation when I have difficulty pronouncing                              | 1.50 | .679           |

Table 15 Items showing no significant variation by pronunciation proficiency level, medium use

| Strategy Item  | Mean | Std. Deviation |
|--|------|----------------|
| <i>Strategies used infrequently at any pronunciation proficiency level (7 items)</i><br><i>(used with frequencies between 1 and 1.4)</i> |      |                |
| 25 I notice or try out different accents and dialects of English.  | 1.43 | .636           |
| 15 I practice sounds first in isolation and then in context.   | 1.40 | .632           |
| 34 I listen to the pronunciations of words from electronic dictionaries or so forth to correct my pronunciation.                         | 1.30 | .608           |
| 37 I read reference materials about target language pronunciation rules.   | 1.25 | .439           |
| 24 I record my own voice to hear my pronunciation.   | 1.25 | .543           |
| 38 I seek out models for sounds.   | 1.17 | .385           |
| 19 I form and use hypotheses about pronunciation rules.  | 1.15 | .362           |

Table 16 Items showing no significant variation by pronunciation proficiency level, low use

In investigating how the use of particular pronunciation learning strategies and pronunciation ability are related, all SILP items were checked for significant variation by pronunciation proficiency level. Only three of the 52 SILP items varied significantly by pronunciation proficiency level (one being near-significant). When the remaining 49 items of non-significant variation were categorized according to the mean frequency of use on the three-point scale to show the popularity in spite of non-significance, seven items were found to be used infrequently (i.e., with low frequency), 37 items moderately (i.e., with medium frequency), and 5 items frequently (i.e., with high frequency) in any pronunciation proficiency group.

### *What is the Relationship between Pronunciation Ability and the Secondary Variables?*

#### *Pronunciation Ability and Self-perception of Pronunciation Ability*

Looking at the overall frequencies for the self-ratings for pronunciation ability, it is seen that out of 40 participants, three (7.5%) classified themselves as having *poor*, 23 (57.5%) as having *fair* and 14 (35%) as having *good* pronunciation abilities. No one reported their pronunciation ability as *excellent*. Figure 12 depicts the

relationship between pronunciation proficiency level (i.e., pronunciation ability levels) and self-perception of pronunciation ability, illustrating the percentages of participants' self-assessments of their own pronunciation abilities at each pronunciation proficiency level (high, moderate and low). Surprisingly, no students in the low pronunciation proficiency level rated their pronunciation abilities as *poor*, but there were some poor ratings in the moderate and high pronunciation proficiency levels. The Pearson chi-square test results demonstrated no significant relationship ( $p < .917$ ) between actual pronunciation proficiency level and self-perception of pronunciation ability.

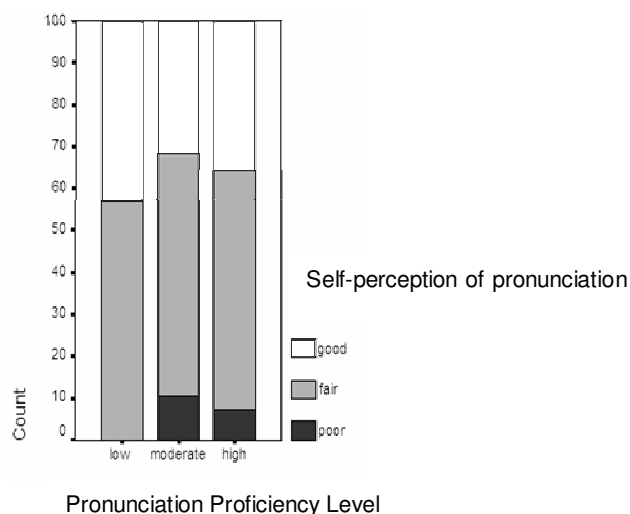


Figure 12 Distribution of students' self-ratings of pronunciation by pronunciation proficiency level

### *Pronunciation Ability and Perceived Importance of Pronunciation*

Of 40 study participants, nine (22.5%) viewed pronunciation proficiency as *somewhat important* while the remaining 31 (77.5%) viewed it as *very important*. None of the participants chose the response of *not so important* on the background questionnaire for their perceptions of the importance of pronunciation. Figure 13 illustrates the percentages of participants reporting their perceptions of the

importance of English pronunciation proficiency at the three pronunciation proficiency levels. Pearson chi-square test results showed no significant relationship between pronunciation ability and perceived importance of pronunciation ( $p < .803$ ).

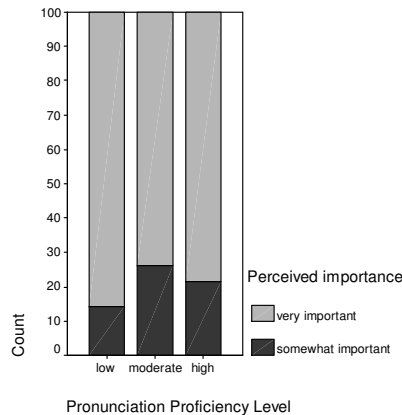


Figure 13 Distribution of students' perception of the English pronunciation by pronunciation proficiency level

#### *Pronunciation Ability and Out-of-class Exposure to English*

In exploring the distribution of all participants' ratings for their exposure to English, it has been observed that 25 (62.5%) of the participants have chosen *very little*, 13 (32.5%) *some* and two *a lot* (5%) for their amount of exposure to English outside the classroom. Figure 14 illustrates the distribution (by percentage) of the students' estimates of their out-of-class exposure to English at the three pronunciation proficiency levels (designated as high, moderate and low). As clearly displayed in Figure 14, the response of *very little* was the most common response among the three proficiency levels, and the distributions of this response at each proficiency level are quite similar. No one in the high proficiency level reported their exposure to English as *a lot*, but almost 10.5 % (2 students out of 19) of the students in the moderate level reported this level of out-of-class exposure. The results of the

Pearson chi-square test indicated that students' out-of-class exposure to English did not vary significantly among the pronunciation ability groups ( $p < .600$ ).

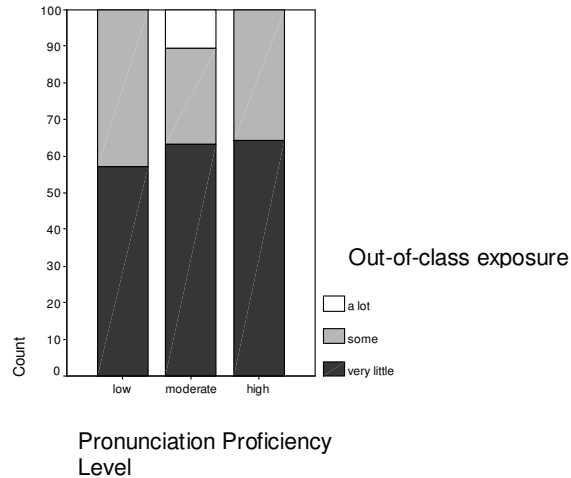


Figure 14 Distribution of students' estimates of out-of-class exposure to English by pronunciation proficiency level

#### *Pronunciation Ability and Gender*

Figure 15 depicts the percentages of the female and male students at each pronunciation proficiency level (high, moderate and low). The distributions at two of the proficiency levels (high and moderate) are quite similar. Pearson chi-square tests revealed no difference in pronunciation proficiency levels between the females and males in this study ( $p < .406$ ).

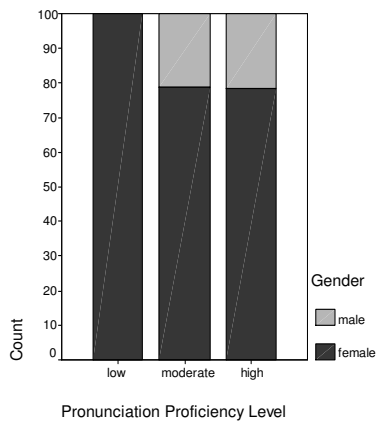


Figure 15 Distribution of female and male students by pronunciation proficiency level

*Pronunciation Ability and Age at Beginning of English Study*

Table 17 below shows the means for the three pronunciation proficiency levels for the ages at which the study participants reported having started studying English. It is obvious that the means for the ages increase as the pronunciation proficiency levels decrease. It is also obvious that participants at more advanced proficiency levels started English study at earlier ages and thus have the lowest mean values.

| Groups          | Mean  | Std. Deviation |
|-----------------|-------|----------------|
| Low (n=7)       | 12.14 | 2.410          |
| Moderate (n=19) | 10.42 | 1.427          |
| High (n=14)     | 9.86  | .535           |

Table 17 Means for the three pronunciation proficiency groups, age at beginning of English study

Age at beginning of English study, according to the ANOVA test conducted among the high, moderate and low pronunciation proficiency groups, varied significantly with pronunciation proficiency level ( $p < .005$ ; see Table 18 for detailed results). Bonferroni post-hoc tests were conducted to see where the differences occurred. Post-hoc test results indicated that the difference seen between low and high pronunciation ability, and that seen between low and moderate levels are significant ( $p < .004$  and  $p < .029$  respectively). No significant difference was found between moderate and high proficiency groups ( $p < .806$ ).

|                | Sum of Squares | df | Mean Square | F     | Sig. |
|----------------|----------------|----|-------------|-------|------|
| Between Groups | 24,772         | 2  | 12,386      | 6,094 | ,005 |
| Within Groups  | 75,203         | 37 | 2,033       |       |      |
| Total          | 99,975         | 39 |             |       |      |

Table 18 The degree of difference among the pronunciation ability and age at beginning of English study

### *Pronunciation Ability and Length of English Study*

The means for the length of English study for the three pronunciation proficiency levels are presented in Table 19 below. In looking at these means, it appears that those students at higher proficiency levels have studied English for a longer period of time.

| Groups          | Mean | Std. Deviation |
|-----------------|------|----------------|
| Low (n=7)       | 7.43 | 2.070          |
| Moderate (n=19) | 8.95 | 1.545          |
| High (n=14)     | 9.50 | .941           |

Table 19 Means for the three pronunciation proficiency groups, length of English study

In a one-way ANOVA test conducted to explore the differences among the groups, a significant difference was revealed ( $p < .016$ ; see Table 20 for detailed results). In the post-hoc tests conducted to see where the differences lay, a significant difference was observed only between the low and high proficiency groups ( $p < .013$ ).

|                | Sum of Squares | df | Mean Square | F     | Sig. |
|----------------|----------------|----|-------------|-------|------|
| Between Groups | 20,213         | 2  | 10,107      | 4,665 | ,016 |
| Within Groups  | 80,162         | 37 | 2,167       |       |      |
| Total          | 100,375        | 39 |             |       |      |

Table 20 The degree of difference among the pronunciation ability and length of English study

In investigating whether there is any relationship between pronunciation ability and the secondary variables of the study, namely self-perception of pronunciation ability, perceived importance of pronunciation, out-of-class exposure to English, gender, age at beginning of English study and the length of English study, it has been seen that there are no significant differences between pronunciation ability and four of the secondary variables, whereas the two secondary variables of age at beginning



of English study and length of English study showed significant relationships to pronunciation ability.

*What is the Relationship between Pronunciation Learning Strategy Use and Secondary Variables?*

*Pronunciation Learning Strategy Use and Self-perception of Pronunciation Ability*

Table 21 below shows the average number of strategies used for the groups of students reporting their own pronunciation ability as *poor*, *fair* and *good* on the questionnaire (no one chose *excellent*). There appear to be slight differences among the groups, with those reporting good pronunciation ability using slightly more strategies. However, a one-way ANOVA test showed no significant differences among the groups ( $p < .568$ ).

| Groups      | Mean  | Std. Deviation |
|-------------|-------|----------------|
| Poor (n=3)  | 34.67 | 1.528          |
| Fair (n=23) | 33.43 | 5.274          |
| Good (n=14) | 35.71 | 8.119          |

Table 21 Means for the three pronunciation self-perception groups, number of strategies used

The means for the frequency of strategy use (as measured by individual mean scores) across the entire SILP for the three groups of students self-assessing their pronunciation abilities as *poor*, *fair* and *good* are shown in Table 22 below. No difference was observed among the means of the three groups of students in an ANOVA test, which means that self-perception of pronunciation ability appears to have no significant relationship to the frequency of strategy use ( $p < .797$ ).

| Groups      | Mean   | Std. Deviation |
|-------------|--------|----------------|
| Poor (n=3)  | 1.9167 | .17868         |
| Fair (n=23) | 1.8838 | .19547         |
| Good (n=14) | 1.9368 | .29363         |

Table 22 Means for the three pronunciation perception groups, overall frequency of use

*Pronunciation Learning Strategy Use and Perceived Importance of Pronunciation*

Table 23 below presents the means for the total number of strategies used, for the two groups of participants reporting their perceptions of the importance of pronunciation as *somewhat important* and *very important*. Though the means might suggest some difference between the groups, with those choosing very important for their perceptions of the importance of pronunciation using more strategy items, the t-test results indicated no significant relationship between pronunciation learning strategy use (in terms of the number of strategies used) and the perceptions of the importance of pronunciation ( $p < .439$ ).

| Groups                   | Mean  | Std. Deviation |
|--------------------------|-------|----------------|
| somewhat important (n=9) | 32.89 | 4.106          |
| very important (n=31)    | 34.74 | 6.718          |

Table 23 Means for the two perceived importance of pronunciation groups, number of strategies used

Table 24 below presents the means of the overall frequency of use for the two groups of participants reporting *somewhat important* and *very important* for their perceptions of the importance of pronunciation. The t-test indicated that the frequency of pronunciation learning strategy use across the whole SILP did not vary significantly by perceptions of the importance of English pronunciation ( $p < .309$ ).

| Groups                   | Mean   | Std. Deviation |
|--------------------------|--------|----------------|
| somewhat important (n=9) | 1.8355 | .17992         |
| very important (n=31)    | 1.9249 | .24052         |

Table 24 Means for the two perceived importance of pronunciation groups, overall frequency of use

*Pronunciation Learning Strategy Use and Out-of-class Exposure to English*

The means of the three groups of students reporting their out-of-class exposure as *very little*, *some* or *a lot* for the total number of strategies used are shown in Table 25 below. While it appears that the number of strategies used increases with reported out-of-class exposure to English, a one-way ANOVA among these groups revealed no significant difference ( $p < .186$ ).

| Groups             | Mean  | Std. Deviation |
|--------------------|-------|----------------|
| very little (n=25) | 33.04 | 5.919          |
| Some (n=13)        | 36.00 | 6.683          |
| a lot (n=2)        | 39.50 | 2.121          |

Table 25 Means for the three out-of-class exposure groups, total number of strategies used

The means of these three groups' individual frequency averages are presented in Table 26. Again, it appears that the frequency of use increases with exposure, but once again, a one-way ANOVA indicated that there was no significant difference in the frequency of pronunciation learning strategy use among these three groups ( $p < .289$ ).

| Groups             | Mean   | Std. Deviation |
|--------------------|--------|----------------|
| very little (n=25) | 1.8646 | .21389         |
| Some (n=13)        | 1.9556 | .24657         |
| a lot (n=2)        | 2.0769 | .29916         |

Table 26 Means for the three out-of-class exposure groups, overall frequency of use

*Pronunciation Learning Strategy Use and Gender*

Table 27 below shows the means of females and males for the total number of strategies used on the whole SILP. In looking at the means, there appears to be a striking difference among the genders, with females using more strategies. The number of strategies used, according to the t-test results, varied significantly by gender ( $p < .003$ ; see Table 28 for detailed results).

| Gender        | Mean  | Std. Deviation |
|---------------|-------|----------------|
| Female (n=33) | 35.61 | 5.777          |
| Male (n=7)    | 28.29 | 4.751          |

Table 27 Means for females and males, the total number of strategies used

|                           |                             | Levene's Test for Equality of Variances |      | t-test for Equality of Means |        |                 |                 |                       |   |        |
|---------------------------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|--------|
|                           |                             | F                                       | Sig. | t                            | df     | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |        |
|                           |                             |   |      |                              |        |                 |                 |                       | Lower                                     | Upper  |
| number of strategies used | Equal variances assumed     | .706                                    | .406 | 3,126                        | 38     | .003            | 7,32            | 2,342                 | 2,580                                     | 12,061 |
|                           | Equal variances not assumed |   |      | 3,557                        | 10,166 | .005            | 7,32            | 2,058                 | 2,745                                     | 11,896 |

Table 28 The degree of difference between pronunciation learning strategy use and gender

The means for the individual frequency means across the whole SILP for females and males are shown in Table 29 below. In looking at the table, there appears to be a significant difference between genders. An independent samples t-test was conducted to explore this difference and revealed that the difference between females and males was significant ( $p < .015$ ; see table 30 for detailed results), with females showing more frequent strategy use than males.

| Gender        | Mean   | Std. Deviation |
|---------------|--------|----------------|
| Female (n=33) | 1.9446 | .22554         |
| Male (n=7)    | 1.7170 | .14336         |

Table 29 Means for females and males, overall frequency of use

|                              |                             | Levene's Test for Equality of Variances |      | t-test for Equality of Means |        |                 |                 |                       |   |        |
|------------------------------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|--------|
|                              |                             | F                                       | Sig. | t                            | df     | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |        |
|                              |                             |   |      |                              |        |                 |                 |                       | Lower                                     | Upper  |
| Individual average frequency | Equal variances assumed     | 1,535                                   | .223 | 2,548                        | 38     | .015            | .2276           | .08933                | .04677                                    | .40844 |
|                              | Equal variances not assumed |   |      | 3,401                        | 13,269 | .005            | .2276           | .06691                | .08335                                    | .37187 |

Table 30 The degree of difference between the overall frequency of use and gender

In investigating how pronunciation learning strategy use is related to the secondary variables of self-perception of pronunciation ability, perceived importance of pronunciation, out-of-class exposure to English and gender, only the comparison of means for females and males of the study has been found to show significant differences.

### Conclusion

This chapter focused on presenting the findings of the analysis of the data using statistical measurements. The results were examined in five main sections, which dealt with the research questions in turn. First, the descriptive statistics findings of the strategy inventory for learning pronunciation (SILP) were presented to look at the overall picture of strategy use by the study participants. Then, the findings concerning the relationship between pronunciation ability and pronunciation learning strategy use were reported with their statistical values. In the next section, the results for the relationship between pronunciation ability and particular strategy use were discussed in detail. Then, the findings for the relationship between pronunciation ability and the six secondary variables of the study (i.e., self-perception of pronunciation ability, perceived importance of pronunciation, gender, out-of-class exposure to English, the length of English study and age at beginning of English study) were presented. Finally, the results for the relation of the four secondary variables in question to the use of pronunciation learning strategies were presented. The next chapter will discuss the findings, pedagogical implications, suggestions for further research and the limitations of the current study.

## CHAPTER V: CONCLUSIONS

### Introduction

The main purpose of this research was to shine new light on pronunciation learning strategies through an investigation of the set of strategies used by Turkish learners of English at the university level and of the relationship between the use of pronunciation learning strategies and learners' pronunciation ability. The data concerning pronunciation learning strategy use were gathered through a 52-item strategy inventory for pronunciation learning (SILP), which was administered to 40 first year students of the English Language and Literature Department at Dumlupınar University (DPU) in Kütahya, Turkey. The data for the participants' pronunciation ability were elicited via two pronunciation elicitation tasks of read-alouds and extemporaneous conversations. Frequencies and percentages were calculated to see the overall picture of strategy use and pronunciation proficiency. One-way analyses of variance (ANOVAs), t-tests and Pearson chi-square tests were then used to analyze the relationships of a number of independent variables first to learners' pronunciation ability and second to the use of pronunciation learning strategies.

### General Results and Discussion

#### *A Detailed Picture of Pronunciation Learning Strategies used by Turkish Learners of English*

In terms of frequency of use, study participants were found to use pronunciation learning strategies with medium frequency on the entire strategy inventory, as well as on the sub-categories. This finding of medium use rather than high use may be linked

to the absence of strategy training in terms of pronunciation learning or the lack of pronunciation courses in the English Language and Literature Department at DPU, and in their previous language classes before they began their studies at DPU.

In investigating frequency of use in terms of the six sub-categories on the SILP, the highest frequency means were seen for the affective sub-category, followed by the memory, compensation, cognitive, cooperation and meta-cognitive sub-categories. It was also seen that the study participants reported the highest percentage of use of the available strategies on the affective sub-category, while reporting the smallest percentage for the metacognitive sub-category. The probable reason for this may stem from the sensitive nature of pronunciation in comparison to other language skills. That is, pronunciation is bound up with one's individual and social identities. In this respect, pronunciation tends to operate at the affective level in that it enables human beings to reflect their "regional, social and ethnic identities", which, in fact, makes the self in human beings (Setter & Jenkins, 2005, p. 1). This close link between pronunciation and self identity might have affected the participants, leading them to use a greater percentage of the available items included in the affective category of the inventory.

Five of the ten most popular strategy items, recalling how the teachers have pronounced something, practicing a difficult word over and over, concentrating intensely on pronunciation while listening to the target language, doing exercises/practice to acquire target language sounds and imitating native speakers' or the teachers' pronunciations are, in my experience, among the most known and typical classroom activities or suggestions English teachers make to help learners in improving pronunciation ability in the Turkish education system. When

concentrating intensely on pronunciation while listening to the target language, students may naturally be apt to notice pronunciation mistakes, another strategy found in the ten most popular. Therefore, the finding that both of these strategies (noticing pronunciation mistakes and concentrating intensely on pronunciation) took place among the ten most popular strategy items might suggest that most students used them in concert with one another. A probable explanation for frequency of use of the strategy of using the synonyms of a word in case of difficulties in pronouncing this particular word is that second language learners are generally said to have a tendency to avoid using difficult words or phrases (either in writing or speaking) while learning a foreign language. This is what Corder (1978, as cited in Palmberg, 1983, 1978) calls a risk-avoiding strategy when mentioning the communication strategies second language learners make use of when faced with language difficulties.

It will be recalled that 11 new pronunciation learning strategy items were added to Peterson's (1997) original list of 44 items. Interestingly, when we look at the ten most used strategies, only two out of the 11 new strategies occurred in the ten most used. While compiling these 11 new items, the researcher asked eight colleagues, who are working at several universities, the most popular learning strategies they use or they observe that their students use for learning English pronunciation. The feeling was that the strategies gained from these eight colleagues would represent the strategies used by highly proficient and advanced learners (in this case, teachers as life-long learners). However, the study participants, who are upper-intermediate/pre-advanced levels in language proficiency, appear not to have preferred them.



In looking at the ten least used strategy items, it is obvious that most of these strategies are related to formal instruction in pronunciation or phonetics. As study participants had no training in such subjects, their reports of less use of these items is understandable.

#### *Overall Strategy Use and Pronunciation Ability*

When the relationship between pronunciation ability and the extent of pronunciation learning strategy use was examined, no significant difference in mean strategy use, either in terms of frequency or the number of the strategies used, on the entire SILP or for the six SILP sub-categories was seen for the different pronunciation proficiency groups. This finding suggests that it does not matter what proficiency level the learners are, they all use pronunciation learning strategies. In other words, proficiency level does not determine which strategies or how many strategies or how frequently the students use strategies of pronunciation learning.

The findings of the current research are inconsistent with the general tenor of strategy research. The finding that there was no difference in strategy use among the proficiency groups has contradicted the previous studies. In contrast to previous strategy research in terms of general language skills (Green & Oxford, 1995; Naiman et al, 1978; Oxford & Nyikos, 1989; Rubin, 1975; Wharton, 2000), the results did not show greater use of strategies or of strategy types by proficient learners than less proficient learners.

In a previous study of a similar type, Peterson (1997) saw positive relationships between pronunciation learning strategy use and pronunciation ability. However, pronunciation learning strategy use was dealt with using factor analysis in her study. This factor analysis was conducted on a 100-item strategy inventory which was made

up of 80 original SILL items and 20 pronunciation related strategies. Of the six factors (strategy groupings or clusters) of pronunciation strategy use in her study, only two factors showed positive correlations to pronunciation ability. As suggested above, these two factors also included non-pronunciation related strategy items, from the original SILL. If only the 20 pronunciation learning strategy items had been correlated with pronunciation ability, the same positive correlations among the pronunciation proficiency groups might have not been observed.

A possible explanation for the non-significance of the findings is that pronunciation strategy use may vary with language proficiency, but not with pronunciation ability. In this respect, if this study had incorporated more proficiency levels rather than a group of students at one particular proficiency level (i.e., upper intermediate/pre-advanced), some degree of variation might have been observed among the participants.

As pronunciation ability probably varies within all proficiency groups, it is not generally used as a factor in placement decisions, which may suggest that pronunciation ability does not necessarily overlap with overall language proficiency, as other particular language skills might. Reading ability, for instance, tends to go hand in hand with overall language proficiency (Carrell, 1991; Ku, 2005). Students who have satisfactory degrees of reading skills and thus better reading comprehension abilities will probably have a correspondingly satisfactory level of overall language proficiency. However, pronunciation ability may not be related to overall language proficiency in the same way.

### *Particular Strategy Use and Pronunciation Ability*

The findings at the particular strategy level provide more complex and detailed patterns of use than have been presented in most of the other strategy studies in the literature. Such comprehensive analyses of the use of individual strategies, however, have been conducted by several researchers before (e.g., Green & Oxford, 1995; Wharton, 2000).

In looking at patterns of variation by pronunciation proficiency at the individual item level, it was revealed that only three of the 52 strategy items on the SILP varied significantly or near-significantly, while the remaining 49 strategy items showed no variation by pronunciation proficiency. Significant variation by proficiency level was of a mixed type for all of the three cases. A possible explanation for the complex mixed patterns for Item 39 (I purposefully focus my listening on particular sounds), where the moderate level of students reported the highest level of strategy use followed by the low and then high proficiency students, is that moderate students may create or find more opportunities to practice English, and they are working on English pronunciation in a conscious manner. However, the need for practicing (meta-cognitive) strategies diminishes with the more advanced levels as their language competencies develop (Green & Oxford, 1995). No students at the low level used this item frequently, with the ratings accumulating around moderate frequencies. If they had focused more on and thus noticed particular sounds before they could actually produce them, these poor pronouncers may have been placed at higher proficiency levels. Therefore, this finding may provide evidence for the assumption that there is a close relationship between perception and production (Browning, 1974, as cited in Celce-Murcia et al., 1996).

To suggest a probable explanation for Item 21 (I listen to tapes, television, movies or music), for which again the moderate level pronouncers reported the highest level of strategy use than the high and low pronouncers, it would be better to interpret the phenomenon first in terms of the other two levels. Why is this strategy not preferred by low level pronouncers? This could be related to the previous strategy that has the same pattern – if these learners do not focus their listening on particular sounds, perhaps they do not look to input as a source of information about pronunciation. For high level pronouncers, the reason may be that they don't need more input to improve their pronunciation. However, moderate pronouncers, as was also the case with the previous strategy item, are consciously looking for sources from all avenues to improve themselves.

For Item 1 (I use phonetic symbols or my own codes to remember how to pronounce words) neither the high nor the low pronouncers, but rather the moderate pronouncers reported the lowest level of strategy use. The most obvious reason may be the sheer size of the task implied by this strategy. Again starting with the levels that use this strategy the most, the low level pronouncers may be paying attention to a few words that are really problematic for them; perhaps they just pick the ones that interfere with communication and disregard the rest of the words. High level pronouncers, however, may be focusing on a few words that they know they have some trouble with (but they still have good control of most words). For the moderate level pronouncers, they may be trying to actively control or remember the pronunciation of many words, possibly too many words to use codes with.

Forty-nine of the 52 items did not show significant differences in frequency of use by pronunciation proficiency level; however, in further analyses based on the frequency of use at all proficiency levels (i.e., by students in general), it is observed that most of the strategies of non-significant variation (37 items) were used moderately frequently, seven were used infrequently, and five were used frequently by students at all three levels of proficiency. The distribution of most of the items in the moderately used range further clarifies the overall frequency mean on the SILP, which indicated medium use overall, and illustrates that this mean comes not from many students using many strategies at high or low frequencies, but from the majority of them using the majority of the strategies moderately frequently.

In comparing the strategy choices of learners, it might be thought that the specific strategies successful learners used more (with greater percentages) than their less successful peers should be paid more attention to in the current research. However, as it will be recalled from the general findings of this study, no significant relationship has been seen between pronunciation learning strategy use and pronunciation ability. Therefore, exploring the total range of strategies used by proficient pronouncers might be more productive and reasonable. In looking at the descriptive statistics (means) of all of the strategy items for the successful pronouncers of this study, it is revealed that Item 6 (I practice a difficult word over and over) was used by all of the successful learners (mean= 1.00), followed by Items 16 (I capture pronunciation errors made by other Turkish speakers of English), 18 (I concentrate intensely on pronunciation while listening to the target language), 28 (I mentally rehearse how to say something before speaking), 48 (I try to pay more attention to my pronunciation if my pronunciation is appreciated by others), 49 (I ask

someone else to correct my pronunciation) and 52 (I tutor, teach, or help someone else to learn pronunciation) (means = .93). These seven strategies that successful learners highly preferred to use might have made a considerable contribution to these learners' reaching this high level of proficiency.

Looking at the strategies of non-significance categorized according to their frequency of use, it is obvious that successful learners also reported using these strategies despite the fact that they had no direct influence in differentiating successful pronouncers from unsuccessful pronouncers. Therefore, strategies used frequently, moderately frequently and infrequently by proficient and improficient learners alike are not necessarily unproductive and unimportant. These strategies of non-significance categorized according to their popularity by frequency of use may be termed "bedrock strategies" (Green & Oxford, 1995, p. 289). The researchers define these strategies as "strategies, which contribute significantly to the learning process of the more successful students, although, not being in themselves sufficient to move the less successful students to higher proficiency levels" (p. 289).

#### *Secondary Variables of the Study and Pronunciation Ability*

When the relationship between the secondary variables and pronunciation ability was analyzed, it was revealed that the only variables varying significantly with proficiency level were the age at the beginning of English study and the length of English study. The remaining variables, self-perception of pronunciation ability, perceived importance of pronunciation, gender, and out-of-class exposure to English, showed no significant relationship to pronunciation proficiency.

Differences in age at beginning of English study were significant between low and high pronunciation ability, and between low and moderate levels. There was no difference between the moderate and high proficiency groups. Such a finding is consistent with previous foreign accent research. The results of previous studies (e.g., Flege & Fletcher, 1992; Flege et al., 1995; Long, 1990; Patkowski, 1990; Scovel, 1988) have shown that the earlier the age at which one starts learning a second language, the better and the less accented one's speech, compared to late starters. Looking at the results of the descriptive statistics of the current study (means of ages for the proficiency groups), a very similar result was found in this study, in that the participants who are at less advanced pronunciation levels started learning English at later ages than the more successful pronouncers. This finding supports the implications of Lenneberg's (1967) original formulation of the Critical Period Hypothesis (CPH). In the present study, native-like attainment of pronunciation was not observed in the assessment of the pronunciation judges (no ratings of 9 on the assessment scale). As the ages for the end of the critical period for the ultimate attainment differ according to different researchers (see Long, 1990; Patkowski, 1990; Scovel, 1988), this study does not attempt to draw conclusions about the CPH and the relevant puberty issue based on the differences in ages at which the study participants started learning English. However, the results support the idea that very few individuals will speak with no perceived foreign accent after a certain age (Scovel, 1988) as no individual gained a nine in the pronunciation assessment. It is also important to note that this lack of native-like attainment in pronunciation is more likely due to the fact that none of the participants studied in the target language environment. Typological differences in the sound structures of Turkish and English

may also cause Turkish students to have trouble with English pronunciation, which is also a research area open to further investigation.

Differences in length of English study by proficiency were significant when the low level was compared with only the high level, which suggests that the longer the participants studied English, the better their pronunciation was. This finding is consistent with Flege and Fletcher's (1992) finding that the number of years of English language formal instruction acts as a main determinant for the degree of foreign accent. Suter (1976, as cited in Flege & Fletcher, 1992), on the other hand, working on the accuracy of pronunciation, found that there is a negative relationship between the years of formal instruction and pronunciation accuracy. Both studies above were done in second language settings. Foreign accent studies investigating formal classroom training are scarce in the literature, especially in first language environments.

In investigating whether there is any kind of variation by proficiency in gender, no difference was found in pronunciation proficiency levels between the females and males of this study. Peterson (1997), who appears to be the first researcher working on strategies of pronunciation learning, also did not observe any kind of relationship (either positive or negative) between pronunciation ability and gender of the participants. At a broader foreign accent research level, the finding of no significant relationship between pronunciation ability and gender appears to agree with the results of several previous studies (Elliott, 1995; Flege & Fletcher, 1992; Suter, 1976, as cited in Flege & Fletcher, 1992).



No significant relationship was found between the self-perception of pronunciation ability and the actual performance of pronunciation on the elicitation tasks. It has been observed that there were no poor ratings in the low level, whereas some of the students at more advanced pronunciation proficiency levels reported their pronunciation ability as poor. There were also more ratings of good in the low level in comparison to moderate and high levels. In this sense, it appears that some study participants were mistaken in interpreting their proficiency in English pronunciation at their respective proficiency levels. However, an interesting finding was the absence of excellent ratings in spite of a considerable degree of misinterpretation and over/underestimation in terms of pronunciation proficiency in the study. The finding of non-significance between the two variables in question provides counterevidence to the findings reported by Peterson (1997), who observed a somewhat significant relationship between the two variables. However, looking at a broader perspective, the literature exhibits divergent findings as to the relationship of the self-perception of language ability to actual language proficiency. As in the current study where no one at the low proficiency level rated poor for their pronunciation ability, Santalka (2007) in her study of ESP vocabulary, observed that none of the participants reported their knowledge of vocabulary as weak, while 40% of participants demonstrated unsatisfactory knowledge of vocabulary in the actual testing situation. Though she did not investigate the relationship between the self-perception of vocabulary knowledge and the actual test scores statistically, her findings suggest poor correlations between these two variables.

A probable factor for the non-relationship between pronunciation ability and self-ratings of pronunciation ability in this study may arguably have been the lack of previous pronunciation or phonetics training, which may help learners to be better aware of their own pronunciation proficiency levels. These students had no courses or testing situations related to English pronunciation or phonetics before. Further, there is a lack of native speaker role models and of feedback as to the quality of the pronunciation ability of the participants in their study environments to help them assess their pronunciation abilities more effectively and accurately.

When the relationships between pronunciation ability and the two remaining variables of out-of-class exposure to English and perceived importance of pronunciation were analyzed, the findings indicated that neither of these variables varied significantly by pronunciation ability. Peterson (1997), however, found a moderate positive relationship between pronunciation ability and each of these secondary variables. The probable reason for the non-significant relationship between pronunciation ability and the perceived importance of pronunciation in the present study is that none of the study participants chose not so important for their perceptions as to the importance of English pronunciation proficiency, which may be explained with the fact that most of the study participants are planning to be teachers of English at the end of their four-year degree program, and thus would be expected to appreciate the importance of pronunciation. The absence of a relationship between pronunciation ability and out-of-class exposure to English may be explained by the greater number of ratings for the response of *very little* when the participants were asked to identify their out-of-class exposure to English.

*Secondary Variables of the Study and Pronunciation Learning Strategy Use*

This study appears to be the first to specifically focus on the relationship of the secondary variables of self-perception of pronunciation ability, perceived importance of pronunciation, gender and out-of-class exposure to English to learners' pronunciation learning strategy use. Analyses showed pronunciation learning strategy use to have no significant relationship with self-ratings of pronunciation ability, perceived importance of pronunciation or out-of-class exposure to English, while a significant difference was observed between genders in terms of pronunciation learning strategy use.

The finding that there is a significant relationship between pronunciation learning strategy use and gender shows that strategy use is a complex issue, related not only to second language proficiency but also to some other factors. This study found supporting evidence for the gender differences in overall strategy use, which also has been shown in most studies of learning strategies conducted in various ESL/EFL settings (Ehrman & Oxford, 1989; Green & Oxford, 1995; Khalil, 2005; Lan & Oxford, 2003). In these studies, as well as the current one, females reported greater strategy use in comparison to males. Just as in the previous studies, thinking about a probable reason for this finding raises another question of whether psychological types of variables (underlying learning styles, motivations and attitudes) contribute to or influence the greater strategy use by women.

The analysis of the data showed an absence of a relationship between self-ratings of pronunciation ability and pronunciation learning strategy use. However, strategy studies in Singapore (Wharton, 2000) and the USA (Oxford & Nyikos, 1989) found that students with higher self-perceived proficiency ratings showed more frequent

use of the learning strategies on the inventory. Looking at the descriptives of the self-rated pronunciation proficiency, it is observed that there is a curvilinear relationship between strategy use and self-perception of pronunciation ability, with students in the fair level (in terms of self-ratings of pronunciation) reporting less use of pronunciation learning strategies than the good level above them and the poor level below them. A probable reason for the absence of a linear relationship is the misinterpretations on the part of some of the moderate or low level of students as to their pronunciation ability.

No relationship was found between pronunciation learning strategy use and out-of-class exposure to English, which may stem from the fact that the responses of *very little* and *some* as to the learners' out-of-class exposure to English showed similar distributions within and between the groups. Interestingly, only the moderate level of students chose the response of *a lot* for their out-of-class exposure.

It might be said that the strategy items included in the strategy inventory for learning pronunciation (SILP) are not, in fact, strategies for learning as the findings failed to find a significant relationship with regard to pronunciation achievement. However, all of the items in the inventory were reported as being used by all of the participants (with varying degrees) while learning English pronunciation. The statistical finding that there is a difference by gender in terms of pronunciation learning strategy use, with females reporting more strategy use than males, agrees with the findings of most ESL/EFL strategy studies (Ehrman & Oxford, 1989; Green & Oxford, 1995; Khalil, 2005; Lan & Oxford, 2003) around the globe, and this provides support for the labeling of these items as learning strategies; these strategies

of pronunciation learning are behaving like any other learning strategies reported in the literature.

It might also be said that the measures used for the assessment of pronunciation ability were unreliable, as a possible explanation for the lack of a significant relationship between strategy use and pronunciation ability. However, the findings as to the existence of a relationship between pronunciation ability and age of learning and also years of language study, which has also been observed in most foreign accent studies (e.g., Flege & Fletcher, 1992; Flege et al., 1995; Long, 1990; Patkowski, 1990; Scovel, 1988) may refute this claim and provide support for the reliability of the measures.

#### Pedagogical Implications of the Study

Although no significant relationship was found between pronunciation ability and pronunciation learning strategy use, the findings as to the strategies of mixed variation, bedrock strategies and the most popular strategies used by successful learners can suggest some implications for the classroom. Despite the fact that there are only three strategy items that show significant variation by proficiency level, the direction of the significance could not be guessed in this study (mixed variation). However, if teachers can set good conditions and understand some other factors that might influence learning strategy use, such as personal traits of individual learners, motivation or previous learning experience, they may turn these strategies of mixed variation into strategies of positive variation. The same comment can be made for the bedrock strategy items, as well. As Oxford and Green (1995) suggest, teachers should be aware of the fact that some strategies may be more appropriate for some learners than for others. The strategy items in the SILP, including both the strategies

of significant variation and non-significant variation, may be more suited to their particular learners in their own particular settings than the population of the current study. As mentioned earlier, some learner-dependent and independent factors may have an important effect on strategy use (learning style, degrees and types of motivation, cultural setting, prior instruction, and so on). Therefore, one possible implication of this study is that there is “no most commonly occurring pattern of strategy use either for proficient or improficient learners, suggesting that a number of factors are responsible for strategy use” (Oxford, 1990a, as cited in Wharton, 2000, p. 206). The finding that students at all proficiency levels used bedrock strategies equally often should not imply that all second language learners striving to learn second language pronunciation are equally aware of these strategies. Thus, teachers who are reminded of the possibility of individual differences, with this study, may vary and organize their teaching situations by injecting a variety of pronunciation learning strategies so that their learners are made more aware of these strategies and choose the ones that are more suited to themselves.

As was also shown in this research, strategy use has an important and indispensable role in second language learning, as participants of this research reported a particular degree of use for each strategy item in the inventory. Hence, teachers to speakers of other languages should enhance their pronunciation teaching with learning strategies so as to empower their learners. As Oxford (1990) suggests, “language learning strategies stimulate the growth of communicative competence in general” (p. 8). Teachers of communicatively-oriented classes, who are trying to teach second language pronunciation communicatively, should make use of the pronunciation learning strategies provided in this research in a detailed manner.

The idea put forth by MacIntyre (1994, as cited in Oxford 1995) and Oxford (1990, as cited in Oxford 1995) may persuade teachers as to the complex nature of the learning strategies. The two authors above suggest that use of individual strategies may pave the way for proficiency. However, the outcome of this is bidirectional; learners either continue or give up using them after they have gained some proficiency. In the light of this claim, the finding of no significant difference between successful and unsuccessful pronouncers may be mitigated as some advanced and less advanced learners may have experienced either use or abandonment of each item at the time they answered the inventory. Nevertheless, a causal relationship between learning strategy use (or training) and success cannot be warranted just based on this research conducted in a particular setting and with a particular target and mother language.

#### Limitations of the Study

Because of time constraints, the data collection methods concerning pronunciation learning strategy use were limited to the use of questionnaires. Due to the questionability of the self-report results, which may stem from the simplicity or straightforwardness of the questions and from the limited working time on the part of the respondents (Dörnyei, 2007), results should be treated with caution rather than as clear-cut evidence. In order to probe deeply into the phenomenon of pronunciation learning strategies, data collection procedures could have included the use of interviews in addition to questionnaires as a way of increasing the reliability of the scores. Another limitation also stemming from time constraints is the relatively small number of respondents. It is possible that with more participants in a statistical study of this type, the results would have been stronger.

For the assessment procedures of the speech samples data obtained, in training pronunciation judges, the researcher talked to each judge and explained the rating procedure to be followed in the study. She also provided detailed written instruction sheets for each judge. The researcher preferred a nine point equal appearing interval scale (EAI) scale over 3-, 4-, or 5-point scales each point of which was defined by a particular verbal descriptor, thinking that there would be less likelihood of misinterpretation as to the set of verbal descriptors. The semantic interpretation of the verbal descriptors may vary from one individual to another and the calibration of the various verbal descriptors that define the number points on these -3,-4 or -5 point scales is also problematic (J. E. Fledge, personal communication, March 7, 2008). The pronunciation raters of the current study, however, reported their difficulty in interpreting the 9-point scale defined by only two verbal endpoints and a mid point (1, 5 and 9). Thus, there were more disagreements between two judges than expected when compared to, for instance, a test of speaking using an analytic assessment rubric. This shows that assessing pronunciation should be approached with caution, and requires more detailed rater training, perhaps practicing with all judges before actually inviting them to be involved in the rating procedures.

#### Suggestions for Further Research

Based on the limitations and the findings of the study, this study opens a number of avenues for further research. In the first place, there is a need for more studies focusing on the relationship between pronunciation learning strategy use and pronunciation ability. Such further research would enable researchers to determine and examine the nature of the relationship and generalizability of the findings of the current research. Based on the limitations of the present study, the same study with



the same research design can be replicated with a larger number of participants. Another replication would be to conduct this study with participants at different general language proficiency levels or to examine different proficiency levels together. The results may be stronger in the two types of replications above. A very similar study might be conducted by using different data collection procedures, such as think-alouds, interviews or examination of learning diaries or a combination of several methods to get more reliable data. Such likely avenues of further research may also involve languages other than English and Turkish.

Further research into the factors that might influence the strategy choice other than pronunciation proficiency level, self-perception of pronunciation ability, perceived importance of pronunciation, out-of-class exposure and gender differences might be very useful to show the complex nature of learning strategy use. Students coming from different cultural backgrounds, with different learning styles and motivation types, in foreign language versus second language settings may choose different strategies (Green & Oxford, 1995; Oxford, 1990; Wharton, 2000), which suggests a further investigation into the relationship of pronunciation learning strategy use to some other secondary variables not included in the current study. Further research on the existence of phonologic intelligence and on Multiple Intelligences (MI) Theory and on the probable relationships of intelligence types to learners' pronunciation learning strategy preferences may be an interesting study area.

The present study could not find a significant and a common pattern valid either for successful and less successful students. In other words, the results did not suggest a particular set of strategies that may distinguish proficient learners from less

proficient ones, suggesting the possible influence of some unidentified personality or learner-independent factors that might influence individuals at any proficiency level. In this sense, much work is needed at the individual strategy level to investigate whether some set of pronunciation learning strategies can account for differences in pronunciation ability at different levels.

Also worthy of further investigation is the phenomenon of bedrock strategies. How can such strategies of non-significance contribute to the language knowledge and proficiency of the students at more advanced levels while not influencing the less successful students? A study investigating a causal relationship between the use of bedrock strategies and pronunciation proficiency might also be an interesting topic for further research.

Conducting a strategy training/instruction study (after identifying and getting more results on some particular strategies that can contribute to second language pronunciation proficiency), which would address the issue of causality, may provide a better understanding of the nature of the relationship between pronunciation learning strategy use and pronunciation ability. In order to explain such causal relationships, a longitudinal study design may be conducted. A study centering on the developmental course of pronunciation learning strategy use over time may contribute to our understanding of whether learners continue to use or abandon the use of pronunciation learning strategies as their language competence and proficiency grows.

## Conclusion

This thesis provided information about the nature and the direction of the relationship between pronunciation ability and pronunciation learning strategy use with a special reference to the investigation of pronunciation learning strategies used by Turkish speakers of English at the university level. Part of the aim of this research was to examine how a number of secondary variables might influence pronunciation ability and pronunciation learning strategy use. No significant relationship was observed between pronunciation ability and the use of pronunciation learning strategies with regard to the overall or the individual strategy level.

The study provided a detailed examination of this relationship at the individual level and presented a complex and divergent patterns of particular strategy use. In spite of their ineffectiveness in differentiating successful from unsuccessful pronouncers, most strategy items in the inventory showed popularity of use at all pronunciation proficiency levels. These strategies may be what are called bedrock strategies. This research supports the use and importance of these strategies, suggesting the possible influences of some other factors on the strategy choices of individual learners. Thus, learners at the same level of proficiency may differ from the overall group picture of their respective levels; a low level student may correspond more to a high level of student in terms of his/her strategy choice than the same proficiency level peer. This may cause weak or no differences among pronunciation proficiency levels (groups). Successful pronouncers also reported using all of these bedrock strategy items in addition to their most popular ones. Therefore, paying attention to all the items of either significant or non-significant variation or that are used popularly by high proficiency learners may enhance second

language pronunciation teaching and contribute to various learning styles and preferences of learners in the language classes. As Oxford and Green (1995) put it, “Students and teachers would do well to think of the active use of strategies as being like the keystone that holds together the pieces of an arch whose strength derives from all its pieces and the way they are combined” (p. 292).

The finding that pronunciation ability is significantly related to the age of learning, length of English study and gender contributed to the accuracy and reliability of the assessment procedures of the study and also tied the present research to the debatable and popular issues of foreign accent studies. This thesis, contributing 11 more strategies of pronunciation learning that have not been documented in the literature before, suggests that more attention to pronunciation learning strategies and strategy research is needed so as to make pronunciation learning much more enjoyable, autonomous and suited to the demands of communicatively-oriented classes, based on the rationale that:

A more fluent tongue,  
A more involved heart,  
A more responsive mind.

(Oxford, 1990, p. ix)

## REFERENCES

- Acton, W. (1984). Changing fossilized pronunciation. *TESOL Quarterly*, 18(1), 71-85.
- Allen, V. F. (1971). Teaching intonation, from theory to practice. *TESOL Quarterly*, 5(1), 73-81.
- Anderson, J. R. (1983). *The architecture of cognition*. Cambridge, MA: Harvard University Press.
- Anderson, J. R. (1985). *Cognitive psychology and its implication*. New York: Freeman.
- Bialystok, E., & Hakuta, K. (1994). *In other words: The science and psychology of second-language acquisition*. New York: Basic Books.
- Bialystok, E., & Miller, B. (1999). The problems of age in second-language acquisition: Influences from language, structure, and task. *Bilingualism: Language and Cognition*, 2(2), 127.
- Bongaerts, T. (1999). Ultimate attainment in L2 pronunciation: The case of very advanced late learners. In D. Birdsong (Ed.), *Second language acquisition and the critical period hypothesis* (pp. 133-159). Mahway, NJ: Erlbaum.
- Bongaerts, T. (2005). Introduction: Ultimate attainment and the critical period hypothesis for second language acquisition. *International Review of Applied Linguistics in Language Teaching*, 43(4), 259-267.
- Bongaerts, T., Planken, B., & Schils, E. (1995). Can late starters attain a native accent in a foreign language? A test of the critical period hypothesis. In D. Singleton & Z. Lengyel (Eds.), *The age factor in second language acquisition: A critical look at critical period hypothesis* (pp. 30-50). Clevedon, UK: Multilingual Matters Ltd.
- Bongaerts, T., van Summeren, C., Planken, B., & Schils, E. (1997). Age and ultimate attainment in the pronunciation of a foreign language. *Studies in Second Language Acquisition*, 19, 447-465.
- Bowen, J. D. (1972). Contextualizing pronunciation practice in the ESOL classroom. *TESOL Quarterly*, 6(1), 83-94.
- Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (1996). *Teaching pronunciation: A reference for teachers of English to speakers of other languages*. New York: Cambridge University Press.

- Celik, M. (2008). Description of Turkish-English phonology for teaching English in Turkey. *Journal of Theory and Practice in Education*, 4(1), 159-174.
- Chamot, A. U., Interstate Research Associates, I. R. V. A., & et al. (1988). *A Study of Learning Strategies in Foreign Language Instruction. The Third Year and Final Report*.
- Chen, I. J. (2002). *Language learning strategies used by high and low English proficiency students in a technology college*. Unpublished master's thesis, National Taiwan Normal University, Taipei.
- Cinemre, Y. (1991). *An investigation of listening comprehension strategies in intermediate level Turkish EFL students*. Unpublished master's thesis, Bilkent University, Ankara.
- Cohen, A. D. (1998). *Strategies in learning and using a second language*. London: Longman.
- Cohen, A. D., Minnesota Univ, M. N. L. R. C., & et al. (1995). *The Impact of Strategies-Based Instruction on Speaking a Foreign Language. Research Report, October 1995*.
- Cummins, J. (1981). Educational success for Canadian minority language children: The role of mother tongue development. *Canadian Journal of Italian Studies*, 4(3-4), 299-315.
- Dalton, C., & Seidlhofer, B. (1994). *Pronunciation*. Oxford: Oxford University Press.
- Dalton-Puffer, C., Kaltenboeck, G., & Smit, U. (1997). Learner attitudes and L2 pronunciation in Austria. *World Englishes*, 16(1), 115-128.
- Demirezen, M. (2007). A model to rehabilitate a fossilized pronunciation error of Turkish English language teachers: the English consonant phoneme /ŋ/ wrongly articulated as /ŋk/ through nasal devoicing. *Journal of Language and Linguistic Studies*, 3(2), 289-303.
- Derwing, T. M., & Rossiter, M. J. (2002). ESL learners' perceptions of their pronunciation needs and strategies. *System*, 30(2), 155-166.
- Dickerson, W. B. (1987). Orthography as a pronunciation resource. *World Englishes*, 6(1), 11-20.
- Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford: Oxford University Press.

- Ehrman, M., & Oxford, R. (1989). Effects of sex differences, career choice, and psychological type on adult language learning strategies. *Modern Language Journal*, 73(1), 1-13.
- Elliott, A. R. (1995). Foreign language phonology: Field independence, attitude, and the success of formal instruction in Spanish pronunciation. *The Modern Language Journal*, 79(4), 530-542.
- Ellis, R. (1994). *The study of second language acquisition*. Oxford: Oxford University Press.
- Firth, S. (1987). Developing self-correcting and self-monitoring strategies. In P. Avery & S. Ehrlich (Eds.), *The teaching of pronunciation: An introduction for teachers of English as a second language [Special Issue]* (pp. 148-152): TESL Talk.
- Flege, J. E., & Fletcher, K. L. (1992). Talker and listener effects on degree of perceived foreign accent. *Journal of the Acoustical Society of America*, 91(1), 370-389.
- Flege, J. E., Munro, M. J., & MacKay, I. R. A. (1995). Factors affecting strength of perceived foreign accent in a second language. *Journal of the Acoustical Society of America*, 97(5 pt. 1), 3125-3134.
- Flege, J. E., & Yeni-Komshiam, G. H. (1999). Age constraints on second-language acquisition. *Journal of Memory & Language*, 41(1), 78.
- Goodwin, J. (2001). Teaching pronunciation. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (pp. 117-149). Boston, MA: Heinle & Heinle.
- Grant, L. (1988). Enhancing pronunciation skills in the adult learner. *TESOL in Action*, 3(3), 1-10.
- Green, J. M., & Oxford, R. L. (1995). A closer look at learning strategies, L2 proficiency and gender. *TESOL Quarterly*, 29, 261-297.
- Grenfell, M., & Harris, V. (1999). *Modern languages and learning strategies*. London: Routledge.
- Halsey, W. D. E. (Ed.) (1986). New York: Macmillan Educational Company.
- Hyltenstam, K., & Abrahamsson, N. (2000). Who can become native-like in a second language? All, some or none? *Studia Linguistica*, 54(2), 150-166.
- Janulevičienė, V., & Kavaliauskienė, G. (Writer) (2007). Self-assessment of vocabulary and relevant language skills for evaluation purposes [Article], *Santalka: Santalka*.

- Jenkins, J. (2000). *The phonology of English as an international language*. Oxford: Oxford University Press.
- Kao, C.-C. (2006). *EFL listening comprehension strategies used by students at the Southern Taiwan University of Technology*. Unpublished Dissertation, University of South Dakota, United States.
- Kelly, L. G. (1969). *25 centuries of language teaching*. Rowley, Massachusetts: Newbury House Publishers.
- Kenworthy, J. (1997). *Teaching English pronunciation*. London: Longman.
- Khaldieh, S. A. (2000). Learning strategies and writing processes of proficient vs. less-proficient learners of Arabic. *Foreign Language Annals*, 33(5), 522-534.
- Khalil, A. (2005). Assessment of language learning strategies used by Palestinian EFL learners. *Foreign Language Annals*, 38(1), 108-119.
- Kolic-Vehovec, S., & Bajanski, I. (2007). Comprehension monitoring and reading comprehension in bilingual students. *Journal of Research in Reading*, 30(2), 198-211.
- Krashen, S. D. (1979). Age, rate and eventual attainment in second language acquisition. *TESOL Quarterly*, 13(4), 573-582.
- Kreidler, C. (1989). *The pronunciation of English*. Oxford: Basil Blackwell.
- Kuhn, D. (2000). Metacognitive development. *Current Directions in Psychological Science*, 9(1), 178-181.
- Ku, K. Y. (2005). *Korean high school students' English language proficiency and Korean reading ability as factors in reading English as a second language*. Unpublished Ph.D., Southern Illinois University at Carbondale, United States -- Illinois.
- Ladefoged, P. (1982). *A course in phonetics* (2nd ed.). New York: Harcourt Brace Jovanovich.
- Lan, R., & Oxford, R. L. (Writer) (2003). Language learning strategy profiles of elementary school students in Taiwan [Article], *IRAL: International Review of Applied Linguistics in Language Teaching*: Walter de Gruyter GmbH & Co. KG.
- Larsen-Freeman, D. (1986). *Techniques and principles in language teaching*. Oxford: Oxford University Press.
- Lau, K. L. (2006). Reading strategy use between Chinese good and poor readers: a think-aloud study. *Journal of Research in Reading*, 29(4), 383-399.



- Lawson, M. J., & Hogben, D. (1996). The vocabulary learning strategies of foreign language students. *Language Learning*, 46(1), 101-135.
- Leather, J. (1983). State of the art: Second language pronunciation learning and teaching. *Language Teaching*, 16, 198-219.
- Lee, M. B. (2001). *Language learning strategies, EFL performance and gender: A synchronized look at the forest and the trees*. Unpublished master's thesis, University of Kansas, Kansas.
- Lenneberg, E. H. (1967). *Biological foundations of language*. New York: Wiley.
- Levis, J. M. (2005). Changing contexts and shifting paradigms in pronunciation teaching. *TESOL Quarterly*, 39(3), 369-377.
- Long, M. H. (1990). Maturation constraints on language development. *Studies in Second Language Acquisition*, 12(3), 251-285.
- Mofareh, A. L. Q. (2005). The use of vocabulary learning strategies by EFL learners at three different educational levels, *Dissertation Abstracts International, Section C: Worldwide* (Vol. 66, pp. 552-552): U of Essex.
- Morley, J. (1991). The pronunciation component in teaching English to speakers of other languages. *TESOL Quarterly*, 25(3), 481-520.
- Morley, J. (1998). Trippingly on the tongue. *ESL Magazine*, 1, 20-23.
- Morley, J. (Ed.). (1987). *Current perspectives on pronunciation: Practices anchored in theory*. Washington, DC: TESOL.
- Moyer, A. (1999). Ultimate attainment in L2 phonology: The critical factors of age, motivation, and instruction. *Studies in Second Language Acquisition*, 21, 81-108.
- Naiman, N., Frohlich, M., Stern, H. H., & Todesco, A. (1978). *The good language learner*. Toronto: Ontario Institution for Studies in Education.
- O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge: Cambridge University Press.
- O'Malley, J. M., Chamot, A. U., Stewner-Manzanares, G., Kupper, L., & Russo, R. P. (1985). Learning strategies used by beginning and intermediate ESL students. *Language Learning: A Journal of Applied Linguistics*, 35(1), 21-46.
- Osburne, A. G. (2003). Pronunciation strategies of advanced ESOL learners. *International Review of Applied Linguistics in Language Teaching*, 41(2), 131-143.

- Oxford, R. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House.
- Oxford, R., & Nyikos, M. (1989). Variables affecting choice of language learning strategies by university students. *Modern Language Journal*, 73(3), 291-300.
- Palmberg, R. (1978). Strategies of second-language communication. *CIEFL Bulletin*, 14(2), 1-8.
- Palmberg, R. (1983). *On the use of lexical avoidance strategies in foreign-language communication*. Abo: Papers from a conference (Stockholm, Sweden and Abo, Finland October, 25-26, 1982).
- Patkowski, M. S. (1990). Age and accent in a second language: A reply to James Emil Flege. *Applied Linguistics*, 11(1), 73-89.
- Pennington, M. C., & Richards, J. C. (1986). Pronunciation revisited. *TESOL Quarterly*, 20(2), 207-225.
- Prator, C. H. (1991). The corner stones of method. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (2nd ed., pp. 11-22). Boston: Heinle & Heinle.
- Prator, C. H., & Robinett, B. W. (1985). *Manual of American English pronunciation*: Harcourt College Pub.
- Purpura, J. E. (1997). An analysis of the relationships between test takers' cognitive and metacognitive strategy use and second language test performance. *Language Learning*, 47, 289-325.
- Rao, Z., Gu, P. Y., & Hu, G. (2007). Reading strategies and approaches to learning of bilingual primary school pupils. *Language Awareness*, 16(4), 243-262.
- Rubin, J. (1975). What the "good language learner" can teach us. *TESOL Quarterly*, 9(1), 41-51.
- Schmitt, N., & Schmitt, D. R. (1993). Identifying and assessing vocabulary learning strategies. *Thai TESOL Bulletin*, 5(4), 27-36.
- Scovel, T. (1969). Foreign accents, language acquisition, and cerebral dominance. *Language Learning*, 19(3-4), 245-253.
- Scovel, T. (1988). *A time to speak: A psycholinguistic inquiry into the critical period for human speech*. New York: Newbury House.
- Seidlhofer, B. (2001). Pronunciation. In R. Carter & D. Nunan (Eds.), *The Cambridge guide to teaching English to speakers of other languages* (pp. 56-65). Cambridge, UK: Cambridge University Press.

- Setter, J., & Jenkins, J. (2005). State-of-the-art review article. *Language Teaching*, 38(1), 1-17.
- Shaw, A. M. (1983). Strategies for oral interaction and learning. *MEXTESOL Journal*, 7(1), 58-74.
- Skehan, P. (1991). Individual differences in second language learning. *Studies in Second Language Acquisition*, 13(2), 275-298.
- Smith, L. E., & Rafiqzad, K. (1979). English for cross-cultural communication: The question of intelligibility. *TESOL Quarterly*, 13(3), 371-380.
- Soukhanov, A. (Ed.). (1992). *The American heritage dictionary of the English language* (3rd ed.). Boston: Houghton Mifflin.
- Stern, H. H. (1975). What can we learn from the good language learner? *Canadian Modern Language Review*, 31(4), 304-318.
- Stevick, E., Morley, J., & Robinett, B. W. (1975). Round robin on the teaching of pronunciation. *TESOL Quarterly*, 9(1), 81-88.
- Sullivan, M. E. (2006). Self-regulatory writing strategies of high achieving and low achieving preservice students, *Dissertation Abstracts International, Section A: The Humanities and Social Sciences* (Vol. 67, pp. 903-904): Fordham U.
- Taylor, D. S. (1990). The place of phonetics, phonology and transcription in language teaching. In B. Verner (Ed.), *Language use, language teaching and the curriculum* (pp. 384-392). Hong Kong: Institute of Language in Education.
- Thompson, I. (1984). *An experimental study of foreign accents (Russian, Phonology, interlanguage)*. Unpublished doctoral dissertation, The George Washington University, United States -- District of Columbia.
- Thompson, I. (1991). Foreign accents revisited: The English pronunciation of Russian immigrants. *Language Learning: A Journal of Applied Linguistics*, 41(2), 177-204.
- Uzuncakmak, P. (2005). *Successful and unsuccessful readers' use of reading strategies*. Unpublished master's thesis, Bilkent University, Ankara.
- Webster's encyclopedic unabridged dictionary of the English language. (1989). New York: Gramercy Books.
- Wells, J. C. (1982). *Accents of English*. Cambridge: Cambridge University Press.
- Wenden, A., & Rubin, J. (1987). *Learner strategies in language learning*. New Jersey: Prentice Hall.

- Wharton, G. (2000). Language learning strategy use of bilingual foreign language learners in Singapore. *Language Learning*, 50(2), 203.
- White, L., & Genesee, F. (1996). How native is near-native? The issue of ultimate attainment in adult second language acquisition. *Second Language Research*, 12(3), 233-265.
- Wong, R. (1986). Does pronunciation teaching have a place in the communicative classroom? In D. Tannen & A. J. (Eds.), *Georgetown University Roundtable on Languages and Linguistics* (pp. 226-236). Washington, DC: Georgetown University Press.
- Yalcin, E. (2003). *An analysis of the relationship between the use of grammar learning strategies and student achievement*. Unpublished master's thesis, Gaziantep University, Gaziantep.
- Yule, G. (1989). The spoken language. *Annual Review of Applied Linguistics*, 10, 163-172.
- Zhang, D., & Goh, C. C. M. (2006). Strategy knowledge and perceived strategy use: Singaporean students' awareness of listening and speaking strategies. *Language Awareness*, 15(3), 199-219.

## APPENDIX A - PRELIMINARY LIST OF PRONUNCIATION LEARNING

## STRATEGIES

|               |  |
|---------------|--|
| Memory        | <ol style="list-style-type: none"> <li>1. using phonetic symbols or one's own codes to remember how to pronounce something</li> <li>2. making up songs or rhymes to remember how to pronounce words</li> </ol>   |
| Cognitive     | <ol style="list-style-type: none"> <li>3. imitating native speakers or one's teacher</li> <li>4. repeating aloud after a teacher or native speaker</li> <li>5. repeating aloud after tapes, television or a movie</li> <li>6. repeating silently</li> <li>7. talking aloud to oneself</li> <li>8. saying things silently to oneself</li> <li>9. reading aloud</li> <li>10. doing exercises/practicing to acquire target language sounds</li> <li>11. practicing sounds first in isolation and then in context</li> <li>12. listening to pronunciation errors made by target language speakers speaking one's native language</li> <li>13. noticing mouth positions, watching lips</li> <li>14. concentrating intensely on pronunciation while listening to the target language</li> <li>15. forming and using hypotheses about pronunciation rules</li> <li>16. trying to recall how one's teacher pronounced something</li> <li>17. trying to recall and imitate one's teacher's mouth movements</li> <li>18. practicing words using flash cards</li> <li>19. listening to tapes/television/movies/music</li> <li>20. concentrating intensely on pronunciation while speaking</li> <li>21. speaking slowly to get the pronunciation right</li> <li>22. recording oneself to listen to one's pronunciation</li> <li>23. noticing or trying out dialects of Spanish</li> <li>24. practicing saying words slowly at first and then faster</li> <li>25. noticing contrasts between Spanish and English pronunciation</li> <li>26. mentally rehearsing how to say something before speaking</li> </ol> |
| Compensation  | <ol style="list-style-type: none"> <li>27. practicing a difficult word over and over</li> </ol>  |
| Metacognitive | <ol style="list-style-type: none"> <li>28. acquiring a general knowledge of phonetics</li> <li>29. reading reference material about target language pronunciation rules</li> <li>30. seeking out models for sounds</li> <li>31. seeking out individuals to correct one's pronunciation</li> <li>32. purposefully avoiding practicing inappropriate native language sounds</li> <li>33. deciding to focus one's listening on particular sounds</li> <li>34. deciding to focus one's learning on particular sounds</li> <li>35. deciding to memorize the sounds (or the alphabet) right away.</li> <li>36. choosing to memorize, rather than read, a presentation</li> <li>37. for a presentation poster paper, writing difficult words very large</li> </ol>  |
| Affective     | <ol style="list-style-type: none"> <li>38. having a sense of humor about mispronunciations</li> <li>39. having fun with pronunciation, such as imitating the overall target language sound with native language words</li> </ol>   |
| Social        | <ol style="list-style-type: none"> <li>40. asking someone else to correct one's pronunciation</li> <li>41. talking with others in English</li> <li>42. asking someone to pronounce something</li> <li>43. studying with someone else</li> <li>44. tutoring, teaching, or helping someone else with the language</li> </ol>   |

(Peterson, 1997)

APPENDIX B - CHANGES MADE IN PETERSON'S PRELIMINARY LIST OF  
PRONUNCIATION LEARNING STRATEGY ITEMS

PART A (Memory)

1. I use phonetic symbols or my own codes to remember how to pronounce words.
2. I make up songs or rhymes to remember how to pronounce words.
3. I associate the words that I do not know how to pronounce with the words that I do know how to pronounce. **NEW**
4. I associate English pronunciations with Turkish pronunciations. (coke with kok- (smell) **NEW**
5. I try to recall how my teachers have pronounced something **TRANSFERRED FROM META-COGNITIVE**
6. I practice a difficult word over and over. **TRANSFERRED FROM COMPENSATION**

PART B (Cognitive)

7. I imitate native speakers' or my teachers' pronunciations.
8. I repeat aloud after a teacher or native speaker.
9. I repeat aloud after tapes, television, a movie or electronic dictionaries.
10. I repeat silently.
11. I talk aloud to myself.
12. I say things silently to myself.
13. I read out loud words, paragraphs or passages.
14. I do exercises/practice to acquire target language sounds.
15. I practice sounds first in isolation and then in context.
16. I capture pronunciation errors made by other Turkish speakers of English.
17. I notice mouth positions and watch lips.
18. I concentrate intensely on pronunciation while listening to the target language.
19. I form and use hypotheses about pronunciation rules.
20. I try to imitate my teacher's mouth movements.
21. I practice words using flash cards. **DELETED (\*after the pilot study)**
22. I listen to tapes, television, movies or music.
23. I concentrate intensely on pronunciation while speaking.
24. I speak slowly to get the pronunciation right.
25. I record my own voice to hear my pronunciation.
26. I notice or try out different accents and dialects of English.
27. I practice saying words slowly at first and then faster.

28. I notice contrasts between Turkish and English pronunciation.

29. I mentally rehearse how to say something before speaking.

PART C (Compensation)

30. I avoid saying the word which I have difficulty in pronouncing. **NEW**

31. I use mime or gesture for the words that I have difficulty in making their meanings clear with my pronunciation. **NEW**

32. I use the synonyms of words that I have difficulty in pronouncing. **NEW**

33. I use more words in the place of a single word that I have difficulty in pronouncing. (circumlocution) **NEW**

34. I check the phonetic symbols of the words from a dictionary for correct pronunciation when I have difficulty pronouncing. **NEW**

35. I listen to the pronunciations of words from electronic dictionaries or so forth to correct my pronunciation. **NEW**

36. I ask someone to pronounce the words that I have difficulty in pronouncing. **TRANSFERRED FROM SOCIAL**

PART D (Metacognitive)

37. I try to learn something about phonetics.

38. I read reference materials about target language pronunciation rules.

39. I seek out models for sounds.

40. I seek out individuals to correct my pronunciation. **DELETED**

41. I purposefully avoid practicing inappropriate native language sounds. **DELETED**

42. I purposefully focus my listening on particular sounds.

43. I purposefully focus my learning on particular sounds.

44. I try to memorize the sounds (or the alphabet) right away.

45. I choose to memorize, rather than read, a presentation.

46. While preparing for a presentation, I write words that are difficult for me to pronounce very large in my notes.

PART E (Affective)

47. I have a sense of humor about my mispronunciations.

48. I have fun with pronouncing target language words with native language pronunciation or vice versa. (saying Turkish la-te instead of / leit/)

49. I encourage myself by making positive statements, such as “My pronunciation is improving” **NEW**

50. I try to take risks in pronouncing words regardless of the possibility of making mistakes or looking foolish. **NEW**

51. I try to pay more attention to my pronunciation if my pronunciation is appreciated by others. **NEW**

PART F (Cooperation)

52. I ask someone else to correct my pronunciation.

53. I talk with people around me in English.

54. I study with someone else.

55. I tutor, teach, or help someone else to learn pronunciation.

## APPENDIX C - STRATEGY INVENTORY FOR LEARNING PRONUNCIATION

(SILP; THE ENGLISH VERSION)

(Based on Peterson, 1997)

**Directions:** This form of the Strategy Inventory for Pronunciation Learning has been designed for students learning English as a second or foreign language. **Please indicate by circling the numbers (1, 2, or 3) how often you use the strategies described and labeled in the following part.**

1. Rarely-Never
2. Sometimes
3. Frequently

Answer in terms of how well each statement describes you, NOT in terms of what you think you should do, or what other people do. **There are no right or wrong answers to the statements below.** Your responses will not affect your course grades, therefore try to be relaxed and answer honestly.

Depending on your language experience and needs, you may be using different types of strategies. Therefore, not everyone needs to use the same or similar kind of strategies. A low or high score and different numbers do not show that you are a bad or good learner.

**Example**

Read the strategy item, choose your frequency response and then circle the number.

|   |   |   |   |
|---|---|---|---|
| I pay attention when someone is speaking English. | 1 | ② | 3 |
|---|---|---|---|

## Strategy Inventory for Learning Pronunciation (SILP)

1. Rarely-Never
2. Sometimes
3. Frequently



| PART A (Memory)  | R/N | S | F |
|--|-----|---|---|
| 1. I use phonetic symbols or my own codes to remember how to pronounce words.                                | 1   | 2 | 3 |
| 2. I make up songs or rhymes to remember how to pronounce words.   | 1   | 2 | 3 |
| 3. I associate the words that I do not know how to pronounce with the words that I do know how to pronounce. | 1   | 2 | 3 |
| 4. I associate English pronunciations with Turkish pronunciations. (coke with kok-(smell))                   | 1   | 2 | 3 |
| 5. I try to recall how my teachers have pronounced something   | 1   | 2 | 3 |
| 6. I practice a difficult word over and over.  | 1   | 2 | 3 |
| PART B (Cognitive)   |     |   |   |
| 7. I imitate native speakers' or my teachers' pronunciations.  | 1   | 2 | 3 |
| 8. I repeat aloud after a teacher or native speaker.   | 1   | 2 | 3 |
| 9. I repeat aloud after tapes, television, a movie or electronic dictionaries.                               | 1   | 2 | 3 |
| 10. I repeat silently.   | 1   | 2 | 3 |
| 11. I talk aloud to myself.  | 1   | 2 | 3 |
| 12. I say things silently to myself.   | 1   | 2 | 3 |
| 13. I read out loud words, paragraphs or passages.   | 1   | 2 | 3 |
| 14. I do exercises/practice to acquire target language sounds.   | 1   | 2 | 3 |
| 15. I practice sounds first in isolation and then in context.  | 1   | 2 | 3 |
| 16. I capture pronunciation errors made by other Turkish speakers of English.                                | 1   | 2 | 3 |
| 17. I notice mouth positions and watch lips.   | 1   | 2 | 3 |
| 18. I concentrate intensely on pronunciation while listening to the target language.                         | 1   | 2 | 3 |
| 19. I form and use hypotheses about pronunciation rules.   | 1   | 2 | 3 |
| 20. I try to imitate my teacher's mouth movements.   | 1   | 2 | 3 |
| 21. I listen to tapes, television, movies or music.  | 1   | 2 | 3 |
| 22. I concentrate intensely on pronunciation while speaking.   | 1   | 2 | 3 |
| 23. I speak slowly to get the pronunciation right.   | 1   | 2 | 3 |
| 24. I record my own voice to hear my pronunciation.  | 1   | 2 | 3 |
| 25. I notice or try out different accents and dialects of English.   | 1   | 2 | 3 |
| 26. I practice saying words slowly at first and then faster.   | 1   | 2 | 3 |
| 27. I notice contrasts between Turkish and English pronunciation.  | 1   | 2 | 3 |
| 28. I mentally rehearse how to say something before speaking.  | 1   | 2 | 3 |

|   |   |   |   |
|---|---|---|---|
| PART C (Compensation)   |   |   |   |
| 29. I avoid saying the word which I have difficulty in pronouncing.   | 1 | 2 | 3 |
| 30. I use mime or gesture for the words that I have difficulty in making their meanings clear with my pronunciation.                              | 1 | 2 | 3 |
| 31. I use the synonyms of words that I have difficulty in pronouncing.  | 1 | 2 | 3 |
| 32. I use more words in the place of a single word that I have difficulty in pronouncing. (circumlocution)  | 1 | 2 | 3 |
| 33. I check the phonetic symbols of the words from a dictionary for correct pronunciation when I have difficulty pronouncing.                     | 1 | 2 | 3 |
| 34. I listen to the pronunciations of words from electronic dictionaries or so forth to correct my pronunciation.                                 | 1 | 2 | 3 |
| 35. I ask someone to pronounce the words that I have difficulty in pronouncing.   | 1 | 2 | 3 |
| PART D (Metacognitive)  |   |   |   |
| 36. I try to learn something about phonetics.   | 1 | 2 | 3 |
| 37. I read reference materials about target language pronunciation rules.   | 1 | 2 | 3 |
| 38. I seek out models for sounds.   | 1 | 2 | 3 |
| 39. I purposefully focus my listening on particular sounds.   | 1 | 2 | 3 |
| 40. I purposefully focus my learning on particular sounds.  | 1 | 2 | 3 |
| 41. I try to memorize the sounds (or the alphabet) right away.  | 1 | 2 | 3 |
| 42. I choose to memorize, rather than read, a presentation.   | 1 | 2 | 3 |
| 43. While preparing for a presentation, I write words that are difficult for me to pronounce very large in my notes.                              | 1 | 2 | 3 |
| PART E (Affective)  |   |   |   |
| 44. I have a sense of humor about my mispronunciations.   | 1 | 2 | 3 |
| 45. I have fun with pronouncing target language words with native language pronunciation or vice versa. (saying Turkish la-te instead of / leit/) | 1 | 2 | 3 |
| 46. I encourage myself by making positive statements, such as “ My pronunciation is improving”  | 1 | 2 | 3 |
| 47. I try to take risks in pronouncing words regardless of the possibility of making mistakes or looking foolish.                                 | 1 | 2 | 3 |
| 48. I try to pay more attention to my pronunciation if my pronunciation is appreciated by others.   | 1 | 2 | 3 |
| PART F (Cooperation)  |   |   |   |
| 49. I ask someone else to correct my pronunciation.   | 1 | 2 | 3 |
| 50. I talk with people around me in English.  | 1 | 2 | 3 |
| 51. I study with someone else.  | 1 | 2 | 3 |
| 52. I tutor, teach, or help someone else to learn pronunciation.  | 1 | 2 | 3 |

## APPENDIX D - STRATEGY INVENTORY FOR LEARNING PRONUNCIATION

(SILP; THE TURKISH VERSION)

(Based on Peterson, 1997)

**Directions:** This form of the Strategy Inventory for Pronunciation Learning has been designed for students learning English as a second or foreign language. **Please indicate by circling the numbers (1, 2, or 3) how often you use the strategies described and labeled in the following part.**

1. Rarely-Never
2. Sometimes
3. Frequently

Answer in terms of how well each statement describes you, NOT in terms of what you think you should do, or what other people do. **There are no right or wrong answers to the statements below.** Your responses will not affect your course grades, therefore try to be relaxed and answer honestly.

Depending on your language experience and needs, you may be using different types of strategies. Therefore, not everyone needs to use the same or similar kind of strategies. A low or high score and different numbers do not show that you are a bad or good learner.

**Example**

Read the strategy item, choose your frequency response and then circle the number.

|   |   |   |   |
|---|---|---|---|
| I pay attention when someone is speaking English. | 1 | ② | 3 |
|---|---|---|---|

## Strategy Inventory for Learning Pronunciation (SILP)

1. Rarely-Never (Nadiren- Asla)
2. Sometimes (Bazen)
3. Frequently (Sık Sık)

| BÖLÜM A  | N/A | B | S |
|--|-----|---|---|
| 1. Kelimelerin nasıl telaffuz edildiğini hatırlamak için fonetik sembolleri ya da kendi oluşturduğum kodları kullanırım. | 1   | 2 | 3 |
| 2. Kelimelerin nasıl telaffuz edildiğini hatırlamak için şarkı ya da kısa şiirler uydururum.                             | 1   | 2 | 3 |
| 3. Telaffuzunu bilmediğim kelimeleri telaffuzunu bildiğim kelimelerle bağdaştırırım                                      | 1   | 2 | 3 |
| 4. İngilizce telaffuzları Türkçe telaffuzlarla bağdaştırırım. (Örnek: coke kelimesini kok- fiiliyle bağdaştırma.)        | 1   | 2 | 3 |
| 5. Öğretmenlerimin bir kelimeyi nasıl telaffuz ettiğini anımsamaya çalışırım.  | 1   | 2 | 3 |
| 6. Zor bir kelimeyi defalarca tekrar ederim.   | 1   | 2 | 3 |
| BÖLÜM B  |     |   |   |
| 7. Anadili İngilizce olanların ya da öğretmenlerimin telaffuzlarını taklit ederim.                                       | 1   | 2 | 3 |
| 8. Anadili İngilizce olanların ya da öğretmenlerimin söylediklerini yüksek sesle tekrar ederim.                          | 1   | 2 | 3 |
| 9. Elektronik sözlükleri, filmi, televizyonu ya da teybi yüksek sesle tekrar ederim.                                     | 1   | 2 | 3 |
| 10. Sessizce tekrar ederim.  | 1   | 2 | 3 |
| 11. Kendi kendime yüksek sesle konuşurum.  | 1   | 2 | 3 |
| 12. Kelimeleri kendi kendime sessizce söylerim.  | 1   | 2 | 3 |
| 13. Sesli okuma yaparım.   | 1   | 2 | 3 |
| 14. Öğrendiğim dilin seslerini kavramak için egzersiz/pratik yaparım.  | 1   | 2 | 3 |
| 15. Sesleri öncelikle tek başına daha sonra da bir bütün içinde çalışırım.   | 1   | 2 | 3 |
| 16. Türklerin İngilizce konuşurken yapmış olduğu telaffuz hatalarını yakalarım.  | 1   | 2 | 3 |
| 17. Ağız hareketlerine dikkat eder, dudakları izlerim.   | 1   | 2 | 3 |
| 18. Öğrendiğim dili dinlerken telaffuza yoğunlaşırım.  | 1   | 2 | 3 |
| 19. Telaffuz kuralları hakkında hipotezler oluşturup kullanırım.   | 1   | 2 | 3 |
| 20. Öğretmenimin ağız hareketlerini taklit etmeye çalışırım.   | 1   | 2 | 3 |
| 21. Müzik ya da teyp dinler, televizyon ya da film seyredirim.   | 1   | 2 | 3 |
| 22. Konuşurken telaffuza yoğunlaşırım.   | 1   | 2 | 3 |
| 23. Kelimeleri doğru telaffuz etmek için yavaş konuşurum.  | 1   | 2 | 3 |
| 24. Telaffuzumu dinlemek için sesimi kaydedirim.   | 1   | 2 | 3 |
| 25. İngilizce'nin farklı diyalektlerine ve aksanlarına dikkat eder ya da kullanmaya çalışırım.                           | 1   | 2 | 3 |
| 26. Kelimeleri önce yavaş daha sonra hızlı bir şekilde tekrar ederim.  | 1   | 2 | 3 |
| 27. Türkçe ile İngilizce arasındaki telaffuz farklılıklarına dikkat ederim.  | 1   | 2 | 3 |
| 28. Konuşmadan önce bir kelimeyi zihnimde prova ederim.  | 1   | 2 | 3 |

| BÖLÜM C   |   |   |   |
|---|---|---|---|
| 29. Telaffuz etmekte zorlandığım kelimeleri söylemekten kaçınıyorum.  | 1 | 2 | 3 |
| 30. Telaffuzumla anlamını belirginleştiremediğim kelimeler için jest ya da mimik kullanırım.  | 1 | 2 | 3 |
| 31. Telaffuzunda zorlandığım kelimelerin eş anlamlılarını kullanırım.   | 1 | 2 | 3 |
| 32. Telaffuzunda zorlandığım bir kelimenin yerine daha fazla sayıda kelime kullanırım. (Bir düşünceyi az sözcük ile anlatmak yerine daha fazla sözcük kullanarak anlatma) | 1 | 2 | 3 |
| 33. Telaffuzunda zorlandığım kelimelerin fonetik sembollerini sözlükten kontrol ederim.   | 1 | 2 | 3 |
| 34. Telaffuzumu düzeltmek için elektronik sözlüklerden kelimeleri dinlerim.   | 1 | 2 | 3 |
| 35. Telaffuzunda zorlandığım kelimeleri başka birinden telaffuz etmesini isterim  | 1 | 2 | 3 |
| BÖLÜM D   |   |   |   |
| 36. Fonetik hakkında bir şeyler öğrenmeye çalışırım.  | 1 | 2 | 3 |
| 37. Öğrendiğim dilin telaffuz kuralları hakkında başvuru kitapları okurum.  | 1 | 2 | 3 |
| 38. Seslere model ararım.   | 1 | 2 | 3 |
| 39. Dinlememi belirli seslere yoğunlaştırırım.  | 1 | 2 | 3 |
| 40. Öğrenmemi belirli seslere yoğunlaştırırım.  | 1 | 2 | 3 |
| 41. Sesleri (ya da alfabeyi) anında ezberlemeye çalışırım.  | 1 | 2 | 3 |
| 42. Bir sunumunu ezberlemeyi okumaya tercih ederim.   | 1 | 2 | 3 |
| 43. Bir sunum hazırlarken telaffuzunda zorlandığım kelimeleri not kâğıtlarıma belirgin bir şekilde yazarım.   | 1 | 2 | 3 |
| BÖLÜM E   |   |   |   |
| 44. Yaptığım telaffuz hatalarını komik bulurum.   | 1 | 2 | 3 |
| 45. Öğrendiğim dildeki kelimeleri anadilimdeki telaffuzuyla telaffuz ederek ya da tam tersini yaparak eğlenirim. (/leit/ yerine Türkçe la-te telaffuzunda olduğu gibi)    | 1 | 2 | 3 |
| 46. “Telaffuzum düzeliyor” gibi pozitif ifadelerle kendimi cesaretlendiririm.   | 1 | 2 | 3 |
| 47. Hata yapma ya da aptal görünme olasılığını göz ardı ederek kelimeleri telaffuz etme riskini alırım.   | 1 | 2 | 3 |
| 48. Telaffuzum diğerleri tarafından beğeniliyorsa telaffuzuma daha çok dikkat ederim.   | 1 | 2 | 3 |
| BÖLÜM F   |   |   |   |
| 49. Bir başkasından telaffuzumu düzeltmesini rica ederim.   | 1 | 2 | 3 |
| 50. Çevremdeki insanlarla İngilizce konuşurum.  | 1 | 2 | 3 |
| 51. Bir başkasıyla çalışırım.   | 1 | 2 | 3 |
| 52. Kelimelerin telaffuzunu öğrenmek için bir başkasına yardım eder ya da öğretirim.  | 1 | 2 | 3 |

## APPENDIX E - BACKGROUND INFORMATION SHEET

(Based on Peterson, 1997)

1. Full Name: \_\_\_\_\_ 2. Date: 03/ 03/ 2008
3. Age: \_\_\_\_\_ 4. Sex: F or M (Please circle)
4. At what age did you start learning English?  
\_\_\_\_\_
5. How do you rate your overall proficiency in English pronunciation? (Circle one)
- Poor Fair Good Excellent
6. How important is it for you to be proficient in the pronunciation of English?
- not so important somewhat important very important
7. Do you enjoy learning English pronunciation? (Circle one) Yes No
8. Why do you want to learn pronunciation? (Put a tick  $\surd$ )
- \_\_\_\_\_ interested in the language as a whole with its all skills
- \_\_\_\_\_ need it for my future career
- \_\_\_\_\_ need it for good foreign language knowledge
- \_\_\_\_\_ my teachers urge me
- \_\_\_\_\_ other (list): .....
9. How much exposure do you have to English **outside the classroom**?
- very little some a lot  
(less than 1 hour per week) (1-4 hours per week) (5 or more hours per week)
- If *some* or *a lot* please explain briefly.
- .....
- .....
10. Is there anything else in your background that might have an influence upon your pronunciation ability?
- .....
- .....
- .....
- .....

## APPENDIX F - PRONUNCIATION ELICITATION TASKS

Task 1: Please read the following passage at your normal pace.

(1) When a student from another country comes to study in the United States, he has to find the answers to many questions, and has many problems to think about. (2) Where should he live? (3) Would it be better if he looked for a private room off campus or if he stayed in a dormitory? (4) Should he spend all of his time just studying? (5) Shouldn't he try to take advantage of the many social and cultural activities which are offered? (6) At first it is not easy for him to be casual in dress, informal in manner, and confident in speech. (7) Little by little he learns what kind of clothing is usually worn here to be casually dressed for classes. (8) He also learns to choose the language and customs which are appropriate for informal situations. (9) Finally, he begins to feel sure of himself. (10) But, let me tell you, my friend, this long-awaited feeling doesn't develop suddenly- does it? (11) All of this takes practice.

Task 2: Please choose and respond to ONE of the conversation topics below.

A. Describe your weekend or daily routine: what you normally do, when, with whom, for how long, what is interesting about it, etc.

B. Describe an experience you had which was meaningful in your life: Who was involved? How old were you? How did this influence you?

C. Describe a person in your life who means a lot to you: How do you know this person? Why is s/he significant in your life?

D. Describe a problem or a challenge you recently faced and how you dealt with it: what steps did you take to solve it? What was the outcome? Who was affected?

E. Discuss an issue or subject matter you are vitally interested in: why is this important for your life? How did you become so interested in it? What has shaped your views and knowledge of the subject?

## APPENDIX G - INSTRUCTIONS TO PRONUNCIATION JUDGES

You are going to be listening to two tapes of recordings. In the first one, individuals read aloud a short reading passage for approximately one minute. In the second tape, each participant speaks about one of the five assigned topics depending on their choices. Each speech sample in this part lasts approximately two minutes.

Please rate each person's pronunciation on the following five-point scale.

|                              |   |   |                              |          |   |                          |   |          |
|------------------------------|---|---|------------------------------|----------|---|--------------------------|---|----------|
| <u>1</u>                     | 2 | 3 | 4                            | <u>5</u> | 6 | 7                        | 8 | <u>9</u> |
| <b>definitely non-native</b> |   |   | <b>Intermediately native</b> |          |   | <b>definitely native</b> |   |          |

If an individual appears to have the pronunciation ability of a native English speaker (from any geographic origin), mark a **(9)** on the scoring sheet. If an individual sounds not at all native, mark a **(1)**. If the individual sounds intermediately native, please mark a score from 5 to 8, depending on the degree of nativeness. Please choose an exact number; you are not allowed to use fractional numbers. Feel free to use the whole nine point range.

In addition, if you feel that it would help you to distinguish between scores, especially in the 2-8 range, please feel free to jot down more detailed descriptions of each number, such as the following:

- |  |                                       |
|--|---------------------------------------|
| 1 Very strong foreign accent: definitely nonnative |                                       |
|  | (1-5)degrees of strong foreign accent |
| 5 Noticeable foreign accent                        |                                       |
|  | (5-9)degrees of slight foreign accent |
| 9 No foreign accent at all: definitely native      |                                       |

These descriptions are merely examples of what is possible to jot down; please feel free to use your own notation or none at all.

It is critical that pronunciation be the only quality you are judging. **Take special care not to let factors like speed, volume, reading and conversation ability, or your perception of grammatical ability affect your judgments.**



## APPENDIX H - AN ADVANCE NOTICE

Dear participant,

You are kindly requested to participate in research which will contribute to the arena of foreign language teaching. For the purpose of my study, you are asked to participate in two data collection procedures. In the first one, you will be requested to take part in an oral activity. Your responses will be recorded in this procedure. In the second procedure, you will be asked to read and answer the statements in a questionnaire. Your task and questionnaire scores will have no effect on your course grades, either positively or negatively. Your responses and identity will be treated as completely confidential. Your identity will not be informed in any report derived from this study, either.

I would appreciate if you can attend in and contribute to my study. If you agree to participate, please sign the attached consent form.

Best Regards,

Researcher,  
Gülçin BERKİL  
MA TEFL Program  
Bilkent University  
Ankara  
gulcin\_berkil@yahoo.com  
0312 290 27 19

## The Consent Form

I have read and understand the advance notice form above.

I agree to participate in the study conducted by Gülçin Berkil.

Name:

Signature:

Date: