THE EFL PRE-SERVICE TEACHERS' PHONOLOGICAL PROCESSING, EVALUATION OF THEIR PHONETIC AWARENESS AND PEDAGOGICAL NEEDS

Canan AKSAKALLI

Doctoral Dissertation

Department of Foreign Language Education

2018

(All Rights Reserved)

T.C.
ATATÜRK ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ
YABANCI DİLLER EĞİTİMİ ANA BİLİM DALI
İNGİLİZ DİLİ EĞİTİMİ BİLİM DALI

İNGİLİZ DİLİ EĞİTİMİ ÖĞRETMEN ADAYLARININ FONOLOJİK İŞLEME SÜREÇLERİ İLE FONETİK FARKINDALIKLARI VE PEDAGOJİK GEREKSİNİMLERİNİN DEĞERLENDİRİLMESİ

(The EFL Pre-Service Teachers' Phonological Processing, Evaluation of Their Phonetic Awareness and Pedagogical Needs)

DOKTORA TEZİ

Canan AKSAKALLI

Danışman: Dr. Öğr. Üyesi Oktay YAĞIZ

Erzurum

Kasım, 2018

KABUL VE ONAY TUTANAĞI

Canan AKSAKALLI tarafından hazırlanan "İngiliz Dili Eğitimi Öğretmen Adaylarının Fonolojik İşleme Süreçleri İle Fonetik Farkındalıkları ve Pedagojik Gereksinimlerinin Değerlendirilmesi" başlıklı çalışması 09/11/2018 tarihinde yapılan tez savunma sınavı sonucunda başarılı bulunarak jürimiz tarafından Yabancı Diller Eğitimi Ana Bilim Dalı, İngiliz Dili Eğitimi Bilim Dalında doktora tezi olarak kabul edilmiştir.

Jüri Başkanı:	Prof.Dr. Mehmet TAKKAÇ *Atatürk Üniversitesi*
Danışman:	Dr.Öğr.Üyesi Oktay YAĞIZ *Atatürk Üniversitesi*
Jüri Üyesi:	Prof.Dr. İsmail ÇAKIR *Ankara Yıldırım Beyazıt Üniversitesi*
Jüri Üyesi:	Dr.Öğr. Üyesi Muzaffer BARIN *Atatürk Üniversitesi*
Jüri Üyesi:	Ahmet Selçuk AKDEMİR *Fırat Üniversitesi*

Bu tezin Atatürk Üniversitesi Lisansüstü Eğitim ve Öğretim Yönetmeliği'nin ilgili maddelerinde belirtilen şartları yerine getirdiğini onaylarım.

23 kasım 2018

Prof. Dr. Mustafa SÖZBİLİR

Enstitü Müdürü

ETİK VE BİLDİRİM SAYFASI

Doktora Tezi olarak sunduğum "İngiliz Dili Eğitimi Öğretmen Adaylarının Fonolojik İşleme Süreçleri İle Fonetik Farkındalıkları ve Pedagojik Gereksinimlerinin Değerlendirilmesi" başlıklı çalışmanın tarafımdan bilimsel etik ilkelere uyularak yazıldığını ve yararlandığım eserleri kaynakçada gösterdiğimi beyan ederim.

09 / 11 / 2018

Canan AKSAKALLI

☐ Tezle ilgili patent başvurusu yapılması / patent alma sürecinin devam etmesi sebebiyle Enstitü Yönetim Kurulunun …./…/…. tarih ve ……. sayılı kararı ile teze erişim 2 (iki) yıl süreyle engellenmiştir.

☐ Enstitü Yönetim Kurulunun …./…/…. tarih ve ……. sayılı kararı ile teze erişim 6 (altı) ay süreyle engellenmiştir.

ACKNOWLEDGEMENTS

Writing a thesis was an exciting but absolutely a demanding journey, and I would like to thank the people who helped me throughout the whole process. Assist. Prof. Dr. Oktay YAĞIZ, my thesis director, advisor and mentor. Thank you for encouraging me to carry out this project and for your guidance in it from the very beginning. Your expert guidance and constant assistance were the key factors not only during this project but also my doctoral program. Thank you for being there for me and believing in me.I also want to express my thanks to dissertation monitoring committee members, Prof. Dr. Mehmet TAKKAÇ and Asst. Prof. Dr. Muzaffer BARIN for their contributions besides their kindness and encouragement.I also would like to thank my dissertation defense jury members Prof. Dr. İsmail ÇAKIR and Asst. Prof. Dr. Ahmet Selçuk AKDEMİR for their precious comments and recommendations concerning my thesis.

I am grateful to TUBITAK (The Scientific and Technological Research Council of Turkey) that supported me financially through its scholarship 2211-National Graduate Scholarship Programme as well.

A special gratitude goes to the students having participated in this study for their invaluable ideas and help that contributed to this dissertation.

Canan AKSAKALLI

ÖZ

DOKTORA TEZİ

İNGİLİZ DİLİ EĞİTİMİ ÖĞRETMEN ADAYLARININ FONOLOJİKİŞLEME SÜREÇLERİ İLE FONETİK FARKINDALIKLARI VE PEDAGOJİK GEREKSİNİMLERİNİN DEĞERLENDİRİLMESİ

Canan AKSAKALLI

2018, 243 Sayfa

Amaç: Bu çalışma İngilizce Öğretmenliği adaylarının İngilizce telaffuzu ve telaffuz eğitimine karşı tutumlarını, fonolojik farkındalıklarını, İngilizce telaffuzu ile ilgili zorluk ve problemlerini araştırmayı amaçlamaktadır. Ayrıca, telaffuz eğitiminin İngilizce Öğretmen adaylarının telaffuz gelişimi üzerine etkileri ve bu veriler ışığında belirlenen ihtiyaçları doğrultusunda önerilerde bulunmak hedeflenmektedir.

Yöntem: Çalışmada karma araştırma yöntemi kullanılmıştır. Anket, ön test / son test ve mülakat yoluyla hem nitel hem de nicel veriler elde edilmiştir. Nicel veri toplama sürecine 107 öğretmen adayı katılmıştır. Katılımcıların telaffuza karşı tutumları ile ilgili veri toplamak için telaffuz tutum ölçeği kullanılmıştır. Telaffuz eğitiminin etkilerini belirlemek için araştırmacı tarafından İngilizce Öğretmenliği adaylarına bir dönem boyunca İngilizce telaffuzunun parçasal ve parçaüstü birimlerinin öğretimini içeren İngilizce telaffuz eğitimi verilmiştir. Sürecin başında ve sonunda verilen eğitimin etkilerini belirlemek için testler yapılmıştır. Ön test/ son test uygulaması için bir okuma parçası seçilerek katılımcıların okumaları istenmiş ve performansları ses kaydına alınmıştır. Nitel veri toplama sürecinde ise 6 öğretmen adayı ile görüşme yapılmıştır. Veri çeşitlemesi toplanan nicel ve nitel verilerin birbiriyle tutarlı olduğunu göstermiştir.

Sonuç: Katılımcılar genel olarak telaffuza karşı olumlu tutum sergilemiştir. Öğretmen adaylarının İngilizce telaffuzu ile ilgili birtakım zorluk ve problemleri olduğu da çalışmanın bulguları arasındadır. Diğer taraftan İngilizce öğretmen adaylarının aldıkları eğitim sonunda hem parçasal ve parçaüstü birimlerde hem de anlaşılabilirlik konusunda büyük oranda gelişim gösterdikleri ortaya çıkmaktadır. Fakat bazı katılımcıların İngilizcedeki birtakım ses ve yapıların telaffuzunda sahip oldukları zorluk ve problemlerin eğitim süreci sonunda tam olarak giderilmediği gözlenmiştir Yapılan araştırma sonucunda, yabancı dil eğitimini alan öğrencilerin telaffuz bilgi, beceri ve farkındalıklarını artırmak için bazı öneriler sunulmuştur.

Anahtar Kelimeler: Telaffuz eğitimi, tutumlar, zorluklar, fonolojik farkındalık, İngilizce Öğretmenleri, pedagojik gereksinimler

ABSTRACT

DOCTORAL DISSERTATION (PhD)

THE EFL PRE-SERVICE TEACHERS' PHONOLOGICAL PROCESSING, EVALUATION OF THEIR PHONETIC AWARENESS AND PEDAGOGICAL NEEDS

Canan AKSAKALLI

2018, 243 Pages

Purpose: This study aimed at investigating EFL pre-service teachers' attitudes toward pronunciation and pronunciation teaching, their phonological awareness, difficulties and problems regarding English pronunciation. Another purpose was to explore the outcomes of pronunciation instruction on EFL pre-service teachers' phonological development and based on the findings to provide suggestions taking learners' pedagogical needs into consideration.

Method: The study was conducted using a mixed methods research design. 107 EFL pre-service teachers participated in the quantitative phase of the study. The quantitative instruments were Pronunciation Attitude Inventory, pre- and post-tests. During one term, the researcher provided EFL pre-service teachers with pronunciation instruction focusing on segmental and suprasegmental features in English pronunciation. Pre- and post-tests were used to measure to what extent language learners improved their pronunciation in English. Also, pre/post tests were implemented using a reading passage and participants' performances were recorded through a tape recorder. The qualitative phase of the study included one-on-one interviews with 6 participants. The triangulation of both types of data revealed that quantitative and qualitative findings were highly consistent with each other.

Results: The participants had generally positive attitudes toward pronunciation. Also, it was found that they had certain difficulties and problems in English pronunciation while pronunciation instruction improved the participants' pronunciation at the segmental and suprasegmental levels as well as their comprehensibility. However, some participants still had difficulties in English pronunciation even after pronunciation instruction. The findings of the study presented implications for improving the quality of pronunciation education provided for language learners especially EFL pre-service teachers.

Key Words: Pronunciation Education, attitudes, difficulties, phonological awareness, EFL pre-service teachers, pedagogical needs.

TABLE OF CONTENTS

KABUL VE ONAY TUTANAĞI i
ETİK VE BİLDİRİM SAYFASI ii
ACKNOWLEDGEMENTS iii
ÖZ iv
ABSTRACT v
TABLE OF CONTENTS vi
LIST OF TABLES x
LIST OF FIGURES xi
ABBREVIATIONS xii

CHAPTER ONE 1
Introduction 1
Background of the Study 1
Statement of the Problem 6
Purpose of the Study 7
Research questions. 7
Significance of the Study 7
Overview of Methodology 8

CHAPTER TWO 11
Literature Review 11
Introduction 11
Pronunciation 11
Definition of pronunciation. 11
The role of pronunciation in language teaching. 13
Components of pronunciation 20
Segmental and Suprasegmental Features of English Phonetics 29
Pronunciation Related Issues 40
Foreign accent. 40
Native speaker. 48
Intelligibility and comprehensibility. 52
Pronunciation Teaching 64

Historical background of pronunciation teaching. 64
Pedagogical issues in pronunciation teaching. 67
Pronunciation teaching approaches. 92
Research on pronunciation teaching in Turkey. 93

CHAPTER THREE 99
Methodology 99
Introduction 99
Research Design 99
Setting 101
Participants 101
The students. 101
Pronunciation instructor. 102
Raters 102
Data Collection Instruments 103
Pronunciation attitude inventory. 103
Semi-structured interview. 103
Reading aloud text 104
Textbook for pronunciation instruction. 104
The rubric. 105
Data Collection Procedure 106
Quantitative data collection procedure 106
Qualitative data collection 109
Data Analysis 110
Analysis of quantitative data. 110
Analysis of semi-structured interviews. 112
Overview of the Study 112

CHAPTER FOUR 114
Qualitative Results 114
Introduction 114
Qualitative Data Results from the Pre-service Teachers of English 114
Theme 1: Perceptions of pre-service teachers of english toward L2 Pronunciation. 114
Theme 2: Affective issues regarding pronunciation instruction. 127
Theme 3: Teaching aspects of pronunciation instruction. 132

Theme 4: The outcomes of the pronunciation intervention: improved versus insistent aspects. 141

CHAPTER FIVE 150
Quantitative Results 150
Results of Pronunciation Attitude Inventory 150
Results of Pre-/Post-Tests 152

CHAPTER SIX 154
Discussion 154
What are the Attitudes of Pre-service Teachers of English Language Toward Pronunciation and Pronunciation Instruction? 154
What are the Perspectives of Pre-service EFL Teachers Regarding the Aspects of Pronunciation Teaching? 162
What are the Problems and Difficulties of Pre-service English Language Teachers in English Pronunciation? 174
Does the Pronunciation Instruction Result in Improvements in the General Quality of Pre-service Teachers' Pronunciation at the Segmental and Suprasegmental Levels and Their Comprehensibility? 178

CHAPTER SEVEN 184
Conclusion 184
Overview of the Study 184
Pedagogical Implications 187
Limitations of the Study 193
Further Research 194

REFERENCES 196
APPENDICES 218
APPENDIX-1. Pronunciation Attitude Inventory 218
APPENDIX-2. Interview Questions for Pre-Service EFL Teachers 220
APPENDIX-3. Reading Aloud Text 224
APPENDIX-4. Pronunciation Assessment Rubric 222
APPENDIX-5.Pronunciation Rubric Assessment Tool 223
APPENDIX-6. Syllabus for Pronunciation Course 224

CURRICULUM VITAE 229

LIST OF TABLES

Table 1. Results of Kolmogorov-Smirnov Test....110
Table 2. Theme for Perceptions of Pre-service Teachers of English Toward L2 Pronunciation....115
Table 3. Theme for Teaching Aspects of Pronunciation Instruction....128
Table 4. Theme for Teaching Aspects of Pronunciation Instruction....133
Table 5. Theme for The Outcomes of the Pronunciation Intervention: Improved versus Insistent Aspects....141
Table 6. Mean Scores and Standard Deviation Values related to Attitudes toward Pronunciation....150
Table 7. T-Test Results Related To Attitudes Toward Pronunciation According to Gender Variable....152
Table 8. Paired Samples t-test Results for Pronunciation Scores of the Pre-test and Post-test of Pre-service Teachers....152
Table 9. A summary of the Study....186

LIST OF FIGURES

Figure 1. The articulators.....30
Figure 2. The classification of North American English consonants phonemes.....32
Figure 3. The classification of English vowel system.....33
Figure 4. The one-group pre-test/post-test design.....100

ABBREVIATIONS

ESL : English Second Language
SLA : Second Language Acquisiton
EFL : English Foreign Language
PAI : Pronunciation Attitude Inventory
SPSS : Statistical Package for the Social Sciences
L1 : First Language
L2 : Second/Foreign Language
NEST : Native English Speaking Teacher
NNEST: Non Native English Speaking Teacher
NS : Native Speaker
NNS : Non Native Speaker
ELF : English Lingua Franca
WE : World Englishes
ASEAN: The Association of South East Asian Nations
CLT : Communicative Language Teaching
CEFR : Common European Framework of Reference
RP : Received Pronunciation
GA : General American

CHAPTER ONE

Introduction

Background of the Study

In this innovative and competitive world, languages play increasingly significant role in how people keep up with the new ideas and developments in order to improve their skills needed in global workplace no matter what field they want to be involved. Likewise, they need to be advanced speakers of second or foreign languages in order to gain status and respect in the community of target language. For these reasons, the importance of language in people's lives is undeniable especially in terms of communication and interaction. In this sense, language learners need to develop efficient language skills in order to share ideas, follow new developments and to be one step ahead of those who have inadequate language skills in every respect. In English language, speaking is complex and it is worth mentioning since it is an interactive process involving many components. Therefore, it can be considered that it is not just an instrument used to transform ideas into words (Figueroa Seda, 2009).

Within a phenomenon in which mutual intelligibility and effective communication are primary considerations, pronunciation can be regarded as one of the most significant aspects of spoken language that should be taken into consideration (M. Hişmanoğlu & S. Hişmanoğlu, 2010; Mehrabi & Mousavinia, 2013; Tlazalo Tejeda & Basurto Santos, 2014). Though there is a general consensus among pronunciation researchers that pronunciation is worth mentioning within language teaching field, there is still a small number of articles devoted to pronunciation in English Second Language (ESL) and second language acquisition (SLA) research journals (Derwing, 2010). However, a sufficient amount of research dedicated to pronunciation can provide some implications for the status of pronunciation in language teaching settings. Also, instructors can benefit from practical research in terms of deciding what to focus on in their own classrooms. Due to this fact, pronunciation, somewhat has been the subject of several investigations. Fraser (2000), for example, has put invaluable effort to emphasize the importance of pronunciation in successful communication stating that pronunciation can be considered to be of vital importance to be able to speak English rather than other skills such as vocabulary, grammar and pragmatics. Being intelligible enables to be understood even if there are grammar, vocabulary or pragmatic- based errors. Similarly, Yates

and Zielinski (2009, p. 11) explains the superiority of pronunciation over other language skills such as vocabulary and grammar in effective communication as following:

> Pronunciation is important because it does not matter how good a learner's vocabulary or grammar is if no one can understand them when they speak! And to be understood, a learner needs a practical mastery of the sounds, rhythms and cadences of English and how they fit together in connected speech. Learners with good pronunciation will be understood even if they make errors in other areas, while those with unintelligible pronunciation will remain unintelligible, even if they have expressed themselves using an extensive vocabulary and perfect grammar

However, Fraser (2000) maintains that pronunciation is a difficult aspect of language to acquire, therefore it requires special training for an effective use of language as also stated by Smakman (2016). The researcher attributes the difficulty in learning pronunciation to the fact that pronunciation is both an academic and analytic skill and requires a certain amount of physiological control since language users need to use their vocal tract for the articulation of phonological forms. Similarly, Gilner (2006, p.93) emphasizes the importance of pronunciation in successful communication and describes the role of pronunciation as "In the context of English language teaching (ELT), pronunciation is an integral aspect of communicative competence that can influence the desire to use the language as well as the quantity and quality of input received and output produced". According to Madden and Moore (1997), pronunciation can be regarded as the most undeniable and necessary component of language proficiency. This means that high level of language proficiency can be achieved through the acquisition of pronunciation.

Concerning the role and importance of pronunciation in language teaching, researchers and practitioners adopt different attitudes toward the practicality of teaching pronunciation. Richards and Renandya (2002) claim that according to some researchers and practitioners, pronunciation teaching can help language learners with the improvement of their pronunciation with very little satisfactory results whereas others believe that teaching pronunciation is of considerable help since it both guides learners for developing new ways of learning pronunciation and improves their attitudes toward the status of pronunciation within the field of language teaching.

It can be noted that pronunciation is prerequisite for effective speaking and fluency even though it is deemphasized in language teaching and applied linguistics to a great extent as stated by many researchers (Derwing & Munro, 2005; Fraser, 2000; Gilakjani, 2011; Saran, Seferoğlu & Çağıltay, 2009) as well as in teacher preparation programs (Breitkreutz, Derwing, & Rossiter, 2001; Derwing & Munro, 2005). While some skills such as grammar and vocabulary are considered to be vital in language learning and teaching, pronunciation is

marginalized within the same field. In one of the most frequently cited studies, Hebert (2002) asserts that pronunciation is generally neglected by teachers who at most, focus on the articulation of single sounds despite its more important and global aspects at the suprasegmental level. This neglected component of English language requires a continuous process of teaching and practice in order to attain desired levels of pronunciation skills for effective and intelligible communication despite the fact that language learners are mostly deprived of such education (Lu, 2002).

In contrast to the studies mentioned above, Thomson and Derwing (2014) state that recently, pronunciation can be viewed as a non-negligible area in second language learning and research based on the large number of studies conducted in order to highlight this issue from different perspectives. Despite the growing interest in pronunciation teaching in recent years, further research is still needed in order to have a better understanding about the issues that can provide contribution to the learning of pronunciation by English foreign language (EFL) learners in a classroom setting. Since English has been increasingly used by nonnative speakers whose number has been growing and exceeding that of native English speakers in the world (Zamora, 2015), the importance of pronunciation in language teaching process in a variety of programs deserves great attention to date.

Considering the overall impacts of pronunciation on both perception and production skills of target language, in recent times, pronunciation instruction has received great attention (Agostinelli, 2013; Chang, 2006; Counselman, 2010; Dauer, 2005; Lee, 2009; Martin, 2013; Roccamo, 2015; Trofimovich & Gatbonton, 2006). Calling for more research, Couper (2006) asserts that explicit pronunciation teaching has positive effects on language learners' phonological development and thereby their communication abilities as also stated by Derwing and Munro (2009). Emphasizing the necessity of explicit pronunciation teaching, Chiu (2008) attributes the increasing interest in and demand for pronunciation teaching to the growing global use of English. Over the past half century, pronunciation instruction has witnessed different degrees of emphases in line with the dominance of different approaches and methods in language teaching. While native-like pronunciation was emphasized by proponents of audio-lingual approach who prioritized teaching of pronunciation in language classrooms (Saito & Lyster, 2012), with the advent of communicative language teaching, a global conversational competence and intelligibility have been the ultimate goals as well as accurate use of phonological forms and patterns (Chiu, 2008). Accordingly, pronunciation teaching practices shifted from minimal-pair drills, imitation, repetition and reading aloud to more meaningful communicative activities. Depending on the changes toward pronunciation

teaching practices, teaching materials, especially textbooks which play a significant part in language teaching process in fact should reflect recent changes. However, Richards and Renandya (2002) assert that there may be a dilemma between the focus of teaching pronunciation and teaching activities in the textbooks. While the aim desired to be attained with teaching of pronunciation is based on current approaches, techniques and tasks to teach it such as imitation, discrimination drills and reading aloud reflect behaviorist notions of language teaching rather than more recent ones. Based on this notion, it can be asserted that the status of pronunciation still seems to be uncertain within the field of language teaching.

Investigating the efficacy of pronunciation instruction, Saito and Lyster (2012) advocate that the concentration on communicative side of phonological form is beneficial for L2 pronunciation development. In recent years, the focus of pronunciation teaching has also been investigated by many researchers (Pardo, 2004; Munro & Derwing, 2011; Thomson & Derwing, 2014). Regarding teaching of pronunciation in language teaching programs, the first issue is the aim of pronunciation instruction desired to be attained by language teaching programs. Throughout the history of language teaching, various language teaching methods were developed and thereby the viewpoints of the methods toward the aim of pronunciation in language teaching considerably changed. While some of these methods, especially older ones, emphasized the importance of accurate pronunciation, more recent methods such as cognitive movement and communicative language teaching viewed native-like pronunciation as an unrealistic goal. According to Celce-Murcia, Brinton & Goodwin (2010), intelligibility and comprehensibility are the notions that can be considered of vital importance for successful oral communication rather than accentedness. They defined intelligibility as "the extent to which a listener actually understands an utterance or message" and comprehensibility as "a listener's perception of how difficult it is to understand the utterance or message" while accentedness is described as "a listener's perception of how different a speaker's accent is from that of the L1 community" (p.32). Based on these definitions, it can be uttered that intelligibility and comprehensibility point out the use of language for the purposes of communication. For this reason, a number of studies focused on the notions of intelligibility and comprehensibility in pronunciation teaching considering that recent methods and approaches address communication as the main goal of language teaching (Atechi, 2004; Becker & Kluge, 2014; Berns, 2008; Deterding & Kirkpatrick, 2006; Gass & Varonis, 1984; Hahn, 2004; Kim, 2008; Munro & Derwing; 1999; Nelson, 2008; O'Brien, 2014; Sewell, 2010).

With the considerable attention paid to the intelligibility and comprehensibility in pronunciation education, prosodic features of English have begun to be emphasized within the field of pronunciation instruction. Segmental features, suprasegmental features and voice quality settings are the types of pronunciation teaching components. Earlier studies, to a large extent, concentrated on teaching and learning accurate pronunciation of segmental features. More recent research, on the other hand, have placed greater importance to teaching of suprasegmental features and voice quality settings in English. (Celce-Murcia et al., 2010). Some researchers associate the acquisition of suprasegmental features of English to the notions of intelligibility and comprehensibility asserting that suprasegmentals have more impacts on the improvement of intelligibility and comprehensibility than the accurate production of vowels and consonants. (Field, 2005; Hahn, 2004; Tikkakoski, 2015). Referring to this relationship in pronunciation teaching, Hahn's (2004) comment is worth mentioning. The researcher asserts that teaching prosodic features to nonnative speakers can be beneficial to improve intelligibility in their speaking skills, which this knowledge may contribute to the establishment of the basic principles of current pronunciation teaching. Due to this fact, the significance of intelligible and comprehensible speech has now been noticed for a successful language development procedure. Playing a crucial part in communicative processes, suprasegmentals has become a vital consideration of the pronunciation-related studies focusing on different dimensions. For example, the studies have concentrated on the effects of the relationship between suprasegmentals and the notions of intelligibility and comprehensibility (Liu, 2017), the difficulties of nonnative speakers in prosodic features (Hua, 2003), and the development of pronunciation with the instruction of suprasegmentals as well as segmentals (Atechi, 2004; Ueno, 1995; Zamora, 2015).

In contrast to the studies claiming the superiority of suprasegmentals in the development of intelligibility and comprehensibility, it is possible to find examples of studies revealing that segmental are more important for intelligibility and comprehensibility development such as in the study conducted by Maassen and Povel (1985). Based on the studies they conducted in order to investigate the effects of teaching segmentals and suprasegmentals on the improvement of intelligibility, Maassen and Povel (1985) revealed that teaching of speech sounds at the segmental level leads to more improvement in intelligibility than the correction of prosodic features. Given the controversial ideas regarding the aspects of pronunciation in the relevant literature, it can be deduced that there is still a need for exploring the issues of pronunciation in language teaching. Since pronunciation teaching has regained its status in improving general language competence, this notion should

be investigated in terms of different perspectives in order to increase language learners' phonological awareness and improvement as well as general language skills.

Statement of the Problem

Language learners generally have a lack of attaining desired levels of pronunciation proficiency even if they are proficient language users in terms of other linguistic features such as grammar, vocabulary and reading skills. This problem is frequently observed among the pre-service language teachers (Derwing & Munro, 2005). This issue can be attributed to the reason that the current language teaching programs do not provide the learners with the essential pronunciation teaching settings in order to enable learners to attain adequate levels of pronunciation skills. When investigating the relevant literature, it can be seen that there are a number of studies exploring foreign language pronunciation teaching from many different perspectives all around the world (Arrieta, 2017; Baker Smaoe & Haslam, 2012; Burgess & Spencer, 2000; Couper, 2011; Jenkins, 2002; Kissling, 2013; Lee, 2009; Lee, Jang & Plonsky, 2014; Sifakis, 2014; Tehrani, Vahdany & Arjmandi, 2014; Tlazalo Tejeda & Basurto Santos, 2014; Tsiartsioni, 2017;).

As for Turkish EFL context, the literature reveals that the study of pronunciation is a relatively ignored issue especially in classroom contexts. In spite of the fact that there has been a renewed interest in foreign language pronunciation in Turkish EFL classrooms, there is still a limited number of studies conducted in order to investigate the issues regarding pronunciation instruction (Coşkun, 2010; Coşkun, 2011; Çakır & Baytar, 2014; Çelik, 2008; Demirezen, 2005, 2009, 2010; Hişmanoğlu, 2006, 2009, 2012; Saran et al., 2009; Seferoğlu, 2005; Şenel, 2006). These studies generally focused on segmental features of English pronunciation and learners' and teachers'' attitudes toward pronunciation. This means that there is still some scarcity in Turkish EFL research concerning the examination of sugrasegmental features of English pronunciation as well as learners' difficulties and needs regarding pronunciation and its teaching. Therefore, suprasegmental features of English pronunciation and learners' needs and difficulties regarding English pronunciation should be emphasized more and it is necessary to investigate these issues in order to provide further insights about its role and place in foreign language teaching and to present some suggestions for an efficient pronunciation teaching process in and out of classroom. In the present study, with the investigation of pre-service language teachers' difficulties, attitudes and needs regarding English pronunciation in terms of different aspects of pronunciation, it is anticipated to contribute to the relevant literature and provide language teaching practitioners

and language teachers with some practical implications that can be beneficial to the efficacy of pronunciation teaching process.

Purpose of the Study

One of the primary aims of the foreign language learners is to be intelligible and comprehensible when speaking in target language. Recently, there has been an increased interest in pronunciation teaching aiming at the development of listening and speaking skills in target language. This study aims to investigate whether pronunciation instruction improves language learners' phonological awareness and their pronunciation proficiency. In addition to this, another purpose of the study is to explore EFL pre-service teachers' attitudes, needs and difficulties regarding English pronunciation and to provide some implications based on the findings of the study.

Research questions.

From the purposes mentioned above, following research questions arise:

1. What are the attitudes of pre-service teachers of English language toward pronunciation and pronunciation instruction?
2. What are the perspectives of pre-service EFL teachers regarding the aspects of pronunciation teaching?
3. What are the problems and difficulties of pre-service English language teachers in English pronunciation?
4. Does the pronunciation instruction result in improvements in the general quality of pre-service teachers' pronunciation at the segmental and suprasegmental levels?
5. What suggestions can be made based on the EFL pre-service teachers' phonological awareness and needs?

Significance of the Study

By investigating EFL pre-service teachers' difficulties and needs in pronunciation learning process as well as the effects of pronunciation instruction on their pronunciation skills and phonological awareness, this study may shed more light on the issues of English pronunciation in Turkish EFL context. The rationale of the study is mainly based on the notion that little attention has been paid to pronunciation in language teaching process. In order to fully understand the nature of issues regarding pronunciation in Turkish EFL context, further investigation into pronunciation teaching is required. Therefore, this study may provide a further understanding of pronunciation teaching in language teaching programs in

terms of different population and setting. Besides, the findings of the study may provide contributions to the existing literature by identifying the most problematic areas of English pronunciation experienced by EFL pre-service teachers. For this reason, a mixed method research design is utilized in order to address the lack of information in this area.

Based on the findings of the present study, it is expected to provide some pedagogical implications about what aspects of pronunciation should be emphasized in pronunciation instruction and to suggest some necessary techniques and ways for the solution of the pronunciation-based difficulties and problems experienced by EFL pre-service teachers in Turkey. The study will also contribute to language teachers by guiding them about what should be done in order to provide language learners with efficient pronunciation teaching process and help them use correct phonological forms and patterns of target language.

Overview of Methodology

The current study was carried out utilizing a combination of quantitative and qualitative methods, which is defined as mixed method research design in an attempt to understand the issues related to pronunciation learning and teaching of target language in a classroom context and thereby to provide answers to the research questions in detail. In the quantitative portion of the study, one-group pre-test/post-test design which is one of the quasi-experimental designs was used. An inventory and pre-/post- tests were used in the quantitative data collection phase while the qualitative data collection phase was conducted through face-to-face interviews. The researcher purposefully selected a mixed method design for the reason that a better understanding of the nature of foreign language pronunciation teaching process requires a comprehensive data. To collect the data needed and to become more familiar with the participants of the study, the researcher provided pronunciation instruction during 14 weeks including teaching of segmental and suprasegmental features of English pronunciation. The first instrument of the study was pre and post tests used in order to evaluate learners' pronunciation development and to answer to what extent pronunciation instruction would improve pronunciation skills of EFL pre-service teachers. Using a reading passage involving critical phonological forms and patterns, a pre-test was implemented before pronunciation training process began. All the students in the first grade in EFL department performed the same passage and their performances were recorded with a voice recorder. The data needed for comparing the difference between their pronunciation skills before and after pronunciation instruction they received was also gathered at the end of the instruction provided by the researcher.

The second instrument used in the quantitative data collection phase of the current study was "Pronunciation Attitude Inventory" (PAI) developed by Elliott (1993), and adapted by Roccamo (2015). The inventory included 13 statements regarding pronunciation attitudes of the participants, and was designed in the form of five-point Likert scale ranging from "always and almost always true of me" to "never and almost never trues of me". PAI was implemented in order to investigate EFL pre-service teachers' attitudes toward pronunciation of target language.

In the qualitative data collection phase, there were 6 interview questions asked to the participants in order to explain the quantitative data in detail. The interview questions developed by the researcher were mainly about general issues in pronunciation teaching, which led participants not only to explain their perceptions and preferences about pronunciation teaching but also their perceived levels of phonological development in English pronunciation.

The quantitative data were collected from all the pre-service language teachers studying in EFL department at Atatürk university, 107 of whom handed valid responses of the inventory and 89 of the participants who participated in pre/post-tests provided valid audio recordings for the evaluation of pronunciation instruction. On the other hand, the interviews were carried out with a relatively small number of participants for the convenience of data analysis. The interviews were conducted with only one participant at a time, which was considered to be more appropriate for the nature of the study. The day and time of the meetings with the participants were determined according to the participants' preferences.

Statistical Package for the Social Sciences (SPSS) 23 was used for the quantitative data analysis. The audio recordings were rated by two native speakers of English using a rubric that included 5 categories, and the ratings were analyzed through SPSS 23. For the analysis of the inventory, after identifying the assumption of normality as the first step, mean and standard deviation values were presented. As for the analysis of the qualitative data analysis, codes, categories and themes were determined and then were analyzed using content analysis.

Definitions of Key Terms

Accent: Accent refers to a particular way of speaking.

Native Language (L1): Native language refers to the language that a human being is exposed to from birth.

Second language (L2): Second language is a language which is learned after the first language or mother tongue. In this study, second language is used interchangeably with target language or foreign language.

Pronunciation: This term refers to "the description of the systems and patterns of speech sounds in a language" (Yule, 2011, p.42).

Phonology:"The description of the sound system of a language, the link between speech and meaning" is referred to as phonology (Kreidler, 2004, p. 11).

Phonetics: Phonetics is "the science which studies speech sounds as sounds" (Kreidler, 2004, p. 11).

Segmentals: Segmentals refer to"discrete units of speech that can be identified physically or auditorily" (Eckstein, 2007, p.4).

Suprasegmentals: Suprasegmentals are"speech features which are over and above the segmentals of an utterance for the purpose of conveying meaning" (Liu, 2017, p. 19). In this study, the terms prosody and suprasegmentals are used interchangeably.

Intelligibility: This term refers to the word/ utterance recognition (Holland, 2016, p.5).

Comprehensibility: Comprehensibility refers to word/ utterance meaning (Holland, 2016, p.5).

CHAPTER TWO

Literature Review

Introduction

In recent years, several researchers and practitioners have called attention to the fact that research on pronunciation appears to be deficient in second language teaching and pronunciation tends to be ignored in the second language (L2) classrooms. With the rise in the significance of communicative functions of language, a wide range of second language pronunciation studies have been carried out to explore pronunciation phenomena that affect successful communication between speakers of target language. The aim of these studies is to offer teaching and learning preferences and to present appropriate syllabi to teach pronunciation in EFL and ESL classrooms. This chapter begins with the definitions of pronunciation and relevant terms. Then, it offers historical background of pronunciation teaching and issues related to pronunciation, and continues with the importance of pronunciation in current language acquisition research. Finally, the chapter concludes with the studies on teaching pronunciation in EFL settings in Turkey.

Pronunciation

Definition of pronunciation.

Professional and academic life place great emphasis on competent communicators in a foreign language. As experts who are competent and proficient in communication skills are very knowledgeable in their field, bilinguals have better opportunities in professional life. Consequently, individuals who want to be efficient in academic and professional life are supposed to acquire oral communication skills effectively and have communication competency. For this reason, the development of oral communication competency plays an important part in the future development of professionals, regardless of the field they select. Attaining better communication skills is intimately related to learners' pronunciation competence levels. Learners who have good pronunciation are doubtlessly to be understood even if they have grammatical errors while poor pronunciation skills may cause confusion and misunderstanding when learners try to express themselves. Also, learners with good language skills will likely be judged as incompetent if they have inadequate knowledge in

pronunciation. Therefore, high level of pronunciation knowledge is necessary for being more qualified language learners.

The concept of pronunciation has received a number of definitions and the role of pronunciation has changed with the advent of different language teaching methods and theories. Therefore, it is possible to define pronunciation from different perspectives. One of the most common definitions considers pronunciation as the perception and production of segmental features including consonants and vowels, and of suprasegmental features, such as stress, rhythm, and intonation.

A comparatively recent and one of the most frequently cited definitions is provided by Yule (2010, p.42) who defines pronunciation as "the description of the systems and patterns of speech sounds in a language". Approaching the issue from a different point of view, Dalton and Sheidlhofer (1994, p.3) describe pronunciation "as the production of significant sound in two senses" one of which views sound as "part of a code of a particular language" and based on this sense, pronunciation is considered "as the production and reception of sounds of speech". The other sense asserts that sound is used to acquire meaning in which the code integrates other factors for a good communication. Pronunciation can be associated with the acts of speaking according to this sense. For these reasons, two senses consider sound is important in communication (Dalton & Seidlhofer, 1994).

Regarding pronunciation as one of the main components of communication, Yates and Zielinski (2009) conceives pronunciation as the way of producing the sounds which are used to make meaning when speaking. The components of pronunciation are consonants and vowels of a language at the segmental level, features of speech beyond the level of individual segments such as stress, intonation, rhythm, and timing which are identified as suprasegmental features, and voice quality which means how the voice is represented. Similarly, emphasizing communicative aspect of pronunciation, Berkil (2008) claims that pronunciation involves production and perception of sounds to receive the intended meaning in the situations in which language is used.

Having a similar perspective, according to Gilakjani (2012a), pronunciation refers to the production and perception of the sounds to understand and interpret meaning in a particular language. Based on this description, it is possible to explain that pronunciation includes both segmental and suprasegmental features. In addition to segmental and suprasegmental levels, voice quality, gestures and expressions that affect the way language learners and users speak a language can also be included in pronunciation's broadest definition.

One of the most comprehensible definitions is provided by Stevick (1978, p. 145) who explains pronunciation in his philosophy of pronunciation as “the primary medium through which we bring our use of language to the attention of other people”. Therefore, it cannot be denied that learners need to know pronunciation well in order to communicate efficiently in professional and social life. To continue with a different definition in focus from other definitions, Zemanova (2007, p.4) regards pronunciation as “the way a word of a language is spoken, the accepted standard of sound rhythm for words in a given language”. This definition suggests that interlocutors of a language converge on common speech sounds and patterns in interaction process. These common characteristics appear to reflect the nature of that language.

Pronunciation is considered as a problematic and challenging aspect in real life since it cannot be controlled for the reason that this aspect of language usually occurs at a subconscious level. Tlazalo Tejedaand Basurto Santos (2014) suggest individuals cannot interact with other speakers without sufficient or intelligible pronunciation despite the fact that it is not regarded as one of the most significant aspects of language. Kreidler (2004) discusses two aspects of pronunciation and states not only how people articulate sounds and words but also the main characteristics of voice settings connected with these sounds and words should be paid attention. According to Kreidler (2004), there is a system of pronunciation that learners should obtain and there are many rules which control sound patterns, intonation patterns and stress in this system. They must be acquired to be competent in pronunciation as well as learning the articulation of vowel and consonant sounds. When considered from this point of view, pronunciation should be discussed with the concepts of two disciplines, phonetics and phonology.

The role of pronunciation in language teaching.

The role of pronunciation and its instruction in language teaching profession has considerably evolved from the earliest methods such as Grammar- Translation and Audio-lingual to the current methods and thereby pronunciation teaching (Otlowski, 1998) and learning has long been a subject of research although it is considered as a neglected area by many practitioners and researchers who obviously recognize pronunciation as an undeveloped field in EFL profession. In accordance with Brown (1991), for example, declaring his anthology about this issue, pronunciation has sometimes been identified as a worthless concept in language teaching field. For this reason, it is not taken into account of as much as other aspects of language even if it is not completely neglected.

Varasarin (2007) attributes the lack of importance given to pronunciation to the teacher as well. The researcher claims that pronunciation is a crucial factor in the learning of oral skills in a second language. Its role in a language program and the amount of time and effort dedicated to it mostly depend on the individual teacher. Likewise, Levis (2005) also thinks the significance level of pronunciation in language teaching classrooms varies according to teachers and explains that the significance of pronunciation has been substantially based on ideology and intuition rather than research. Therefore, language instructors rely on their intuitions in order to decide which aspects of pronunciation are the most influential and teachable in a classroom setting. From the perspective of Gilakjani and Sabouri (2016), pronunciation promotes language users to communicate as one of the significant parts of language learning and teaching. In case of lack of pronunciation skills, learners not only suffer the problems regarding self-confidence and social interaction but also might be judged by listeners negatively in terms of their overall language ability. The contribution of good pronunciation to the learners' self-confidence is explained by Gilakjani and Sabouri (2016) who claim that inaccurate and incomprehensible pronunciation results in not only misunderstandings among speakers and listeners but also low self-confidence and negative effect on learners' judges on their abilities. Based on this notion, it can be asserted that pronunciation plays an important part in both social interactions among language users and language learners' professional and psychologicallives.

As mentioned above, pronunciation has a significant role in communicative issues and has been investigated from this point of view by a number of researchers who took the relationship between pronunciation and communication into consideration from different perspectives (Alastuey, 2013; Elias, 2000; Gilakjani; 2012b; Hebert, 2002; Isaacs, 2009; Jones, 1997; Levis, 2005; Pennington & Richards, 1986). Examining the status of pronunciation, Pennington and Richards (1986) conducted a study including the investigation of the effects of segmentals, suprasegmentals and voice-setting features on referential and interactional meaning. The researchers emphasized the importance of pronunciation for its contribution to not only referential meaning but also "interactional dynamics of communication process" (p.208). Based on this notion, pronunciation seems to be an inseparable part of communication as well as other aspects of language use, which makes it move beyond the correct articulation of speech sounds to an important part of conversational fluency. Providing support to the notion regarding the necessity of pronunciation for efficient communication, Isaacs (2009) maintained that pronunciation has a significant place in facilitating communication, which gains a position of prominence in language teaching process. Sharing a similar perspective, Gilakjani (2012b) regards pronunciation as a necessary

part of communicative competence and goes on commenting that intelligible pronunciation should have superiority over native-like accent in pronunciation classrooms since intelligibility can be considered to be of vital for interactional needs of language learners. Considering pronunciation as an integral part of language and communication, Moedjito (2018, p.10) explains the relationship between pronunciation and communication as following:

> The nature of language as a system implies that a language is composed of two systems: a system of sounds and a system of meaning. The relationship between those two systems is important because in human verbal communication meaning or message is conveyed or received primarily through sounds or vocal symbols. These vocal symbols are expressed in the form of words (vocabulary) and arranged in certain grammatical structures (grammar).

Communication problems can be viewed as failure at the level of phonological perception and production. Pronunciation thus becomes one means for speakers to abstain from communication breakdowns. This view firmly establishes pronunciation as an essential component within communicative approaches to language teaching. From this vantage point, pronunciation component of a language emerges as a useful framework for researchers to explain some complexities of language learners' L2 development from communicative perspectives as well as for teachers to develop and reform activities for teaching L2 pronunciation.

Similarly, Elias (2000) points out the importance of spelling instruction in her study in order to improve pronunciation for effective speaking skills. According to the researcher, for reading and writing skills, the negligence of pronunciation of spelling patterns does not influence word recognition and understanding. For oral purposes, on the other hand, pronunciation seems to be crucial as well as spelling-to-sound correspondences.

Another reason for having good pronunciation is explained by Lord (2008) who focuses on the place of pronunciation in language teaching claiming that language instructors do not pay attention to pronunciation in their classes since they believe learners can learn pronunciation themselves at some point in future. However, pronunciation instruction is essential because good pronunciation prevents learners from being recognized as foreigners. In order to provide contribution to the field of pronunciation teaching, Lord (2008) carried out a mixed method study aiming at showing the need for and advantages of pronunciation instruction. The participants were 19 undergraduate students who were enrolled in a Spanish phonetics course. Through an inventory used for assessing participants' attitudes toward foreign language pronunciation and a podcast project coursework including some oral tasks in target language, the researcher collected both quantitative and qualitative data in order to

investigate participants' pronunciation improvement. The main results showed that after the weekly podcasts projects over the course of a semester, the participants' attitudes toward pronunciation training improved significantly. Also, the participants improved their foreign language pronunciation after taking part in weekly podcast projects. These results reveal that language learners often benefit from pronunciation instruction and thereby language instructors should worry about including pronunciation instruction in language teaching classes as well as grammar, vocabulary and culture for the reason that accurate and acceptable pronunciation is generally regarded as "the most salient feature in the speech of a foreigner" (Lord, 2008, p.364). Also, in today's professional life, the continuing demand for global competence and international communication and collaboration drives individuals to have accurate and acceptable pronunciation as well as being proficient in grammar and vocabulary. In a similar vein, emphasizing the effects of pronunciation on social interaction, Sasanapradit (2012) states that speakers with good pronunciation can make a good impression on other listeners and speakers while heavily accented speech may cause to be judged negatively.Based on the notions of the researchers mentioned above, it can be noted that without some basic knowledge of target language pronunciation, learners can suffer serious problems in social interactions since pronunciation may contribute to the sense of belonging to the community of target language.

Approaching pronunciation accuracy from the sociolinguistic point of view, Gatbonton, Torfimovich and Magid (2005) attach particular importance to pronunciation accuracy since it promotes learners' group identity. Every human being wants to belong to a particular group in order to be able to have similar worldviews and behavioral norms. In such a situation that non-native speakers of a language need to communicate with other groups of speakers in their own settings, group identity and affiliation issues come to prominence. The researchers conducted a study to investigate the relationship between ethnic group affiliation and pronunciation accuracy aiming to find out whether there is a relationship between learners' L2 accent and perceived ethnic group affiliation and the behavioral consequences of such a relationship. In their studies, the participants were L2 learners from two different ethnic groups including Francophone and Chinese people in Quebec.To determine whether non-native speakers' pronunciation influence native speakers' attitudes toward their group identity and affiliation issues, they used questionnaires and stimulus tapes. The participants listened to fellow learners speaking an L2 and estimated these learners' degree of ethnic group affiliation. The findings of the study showed that there is a relationship between L2 accent and ethnic affiliation, which also has particular behavioral consequences. Based on the results of the studies, it is suggested that learners regard their peers' L2 accent as an indicator

of their degree of ethnic affiliation. Pronunciation, for this reason, is important for identifying learners' affiliation and belonging to the group of target language. The relationship is also significant in terms of its effects on L2 pronunciation accuracy (Gatbonton, et al., 2005).

Similarly, Dragojevic, Giles, Back and Tatum (2017) underline the importance of foreign accented speech for deducing language speakers' social group that they belong to. The researchers carried out an experimental study in order to investigate whether speakers with heavy foreign are evaluated more negatively than those with mild foreign accents accents. To do this, they conducted two studies including two different groups of learners. In their first study, the participants were 96 Punjabi-accented speakers ranging in age from 18 to 25 years while 197 undergraduate students with Mandarin-accented speech were included in their second study. In both studies, the same procedure was followed. The participants completed some tasks including listening, reading and writing activities and completed a questionnaire. The findings revealed that heavy foreing- accented speakers were evaluated more negatively than mild foreign-accented speakers since the speech of heavy foreign-accented speakers reduces listeners' processing fluency. These results may lead to some implications. According to Dragojevic et all (2017), accented speech affects cognitive and affective processes and accent can be seen as a determining factor of social identity. Speakers' different degrees of accentedness can be perceived by listeners, which cause them to evaluate speakers according to their accented speeches. In this sense, it can be inferred that speakers who utter heavy foreign accented speeches may be evaluated more negatively by listeners for the reasons that foreign accented speech affects speakers' fluency and listeners find it difficult to understand their speeches, which leads communication breakdowns to occur. Based on above-mentioned notions, one can hypothesize that pronunciation accuracy is needed for social identity and processing fluency.

The relationship between social identity and pronunciation illustrates another important aspect of pronunciation which cannot be undervalued. Because, many L2 speakers encounter discrimination as a reaction to their accented speech. Even though this situation does not only result from L2 speakers' accented speech, but also prejudiced and intolerant listeners who preconceive that they will not understand accented speech. However, there is often a need for minimizing discrimination by improving interactions and thereby for good pronunciation. Speakers' utterances can be intelligible but it would demand more effort on the listener, which might be a reason for negative attitude to heavily accented English. Thus having better pronunciation skills may lead to a more positive evaluation.

Pronunciation deserves more attention in terms of examining what the main purpose of pronunciation instruction should be since the aims of pronunciation instruction determine the role and level of importance to be devoted to pronunciation in language teaching classes. In some pronunciation syllabi, native like accent is emphasized, Kelly (2000) stresses the importance of dealing with pronunciation in language classroomsince phonological errors restrict efficient interaction. Emphasizing that difficulties in understanding and being understood might be annoying for language learners even if they have a good level of grammar and vocabulary knowledge, Kelly (2000) points to the importance of intelligible speech and the contributions of accurate pronunciation to the intelligibility. The lack of intelligibility may cause nervousness, which is explained by Lu (2002, p.37) as following:

> Although non-native pronunciation and intonation are not necessarily obstacles to successful communication with English speakers from other parts of the world, too much accented or distorted speech will frequently give rise to misunderstandings, miscommunication, and frustration. Incomprehensible non-standard pronunciation and intonation will produce psychological nervousness in speakers, which is likely to also block their efforts to seek clarification or to paraphrase using alternative expressions with phonetically different pronunciation and intonation.

Given the importance of intelligibility to efficient communication, it would be distracting to see some teachers actually ignoring pronunciation in their own teaching. Not being understood, in spite of control over grammatical patterns and vocabulary of target language, can be demoralizing and disgraceful for not only the speaker but also the speaker's interlocutors. In this respect, speaking with phonological errors and the loss of intelligibility stemmed from these errors can entail social costs. A widely accepted notion is that second or foreign language speakers, with very few exceptions have pronunciation problems resulting in the loss of intelligibility. Yet, pronunciation is learnable. Exposure to target language pronunciation, especially in classroom settings, can lead to some changes in the direction of improving intelligibility. Therefore, language teachers should pay adequate attention to pronunciation in their classes in order to help learners develop their interactional skills through phonological instruction. According to Nelson (2008), pronunciation is of great value as sounds are representatives of language spoken by non-native speakers. This means that people in the same language community can evaluate language proficiency through speakers' pronunciation. Given the consideration that intelligibility should be defined with native-like pronunciation since it is accepted as minimal pronunciation standard, learner must be able to have sufficient pronunciation intelligibility and for this reason, pronunciation should be included in L2 curriculum (Arteaga, 2000).

More recent studies have displayed a direct and positive relationship between pronunciation and listening comprehension skills (Ak, 2012; Gebhard, 1996; Marzá, 2014). As an example to this issue, Marzá (2014) examined learners' perceptions about pronunciation and comprehension and the results of the studies showed a significant relationship between learners' pronunciation competence and their ability to understand English sentences. Therefore, it can be concluded that pronunciation instruction is important for learners in terms of development of their listening comprehension. Similarly, Gebhard (1996) emphasizes the importance of pronunciation in language classrooms in terms of such a relationship claiming that knowledge of sounds, intonation, and stress pattern and how speech is organized is needed for the ability to perceive and produce speech. Contributing to the same issue, Ak (2012) investigated to what extent listening comprehension skills are improved through pronunciation awareness training. Conducting an experimental study, she revealed that the participants in the experimental group receiving pronunciation awareness training improved more than the control group receiving no special training of pronunciation awareness. On the basis of this finding, it can be concluded that pronunciation and listening comprehension skills are correlated since pronunciation is effective in developing listening comprehension skills. Although these findings are significant, it is not sufficient to know that pronunciation training is efficient. Also, how pronunciation should be incorporated into language teaching is needed to know. If not, there might be a risk of teaching things that will not lead to actual improvement in listening comprehension.

The status and importance of pronunciation can be ameliorated by favor of exploring learners' and teachers' views about pronunciation. Their views may contribute to understand the nature of pronunciation in language classes. This understanding, in turn, can strengthen their motivation in the process of incorporating pronunciation into language classrooms. In this respect, Kanellou (2011) carried out a study to examine teachers' and learners' attitudes and views related to the status and role of pronunciation. Questionnaires were given to 327 upper intermediate and advanced ELF students and 47 EFL teachers as well as interviews conducted with 12 EFL teachers. The findings showed that learners and teachers considered pronunciation as an important component for the development of speaking skills. From the findings of the interviews, it can be interpreted that although teachers and learners find a good level of pronunciation essential in terms of intelligibility, pronunciation is less important than vocabulary according to the teachers and more time and effort are devoted to teach vocabulary by them in teaching speaking.

Another study that provides insight into the role of pronunciation with teachers' beliefs regarding pronunciation teaching was carried out by Chiu (2008). Native English speaking teachers (NEST) and non-native English speaking teachers (NNEST) were involved in the study and the results revealed that NESTs view pronunciation more differently than NNESTs and they adopted different teaching methods for different features of pronunciation. This study demonstrates that the role of pronunciation may vary from teacher to teacher and the role of pronunciation has great impacts on the methods to be used in teaching pronunciation and the route that teachers will follow during this process.

It is worth remembering that achieving good pronunciation is a challenging and long process but it deserves much effort and attention to cope with pronunciation problems of EFL learners and he suggests five strategies to teach phonetic symbols. Learners can apply familiar sounds to learn unfamiliar ones. The sounds unique to target language can be emphasized. Another way is that common letter combinations can be prepared and showed students. Practicing phonetic symbols in real life situations may help learners acquire phonetic symbols and teachers can encourage them to seek words with the same letters representing more than one sound.

Overall, there appears to be a clear consensus among pronunciation researchers about the importance of pronunciation aspects. Accordingly, pronunciation teachers might need to prioritize phonological aspects in classroom instruction for the increase of intelligibility, comprehensibility and social and affective processes of language learners. Even devoting only, a relatively time to pronunciation teaching in language classrooms can lead to beneficial results in perception and production for learners. The above-mentioned studies suggest that pronunciation training can make a difference in learner development.

Components of pronunciation.

Phonology.

The speech process includes interactions between listeners and speakers producing speech by using their articulatory systems to convey a message. In contrast to speakers, listeners perceive the speech to understand what the speaker intent to say. This process can be studied within the fields of phonetics and phonology. Phonetic and phonological knowledge of listeners and speakers plays an important role in conveying and understanding the intended meaning.

In the early decades of the twentieth century, pronunciation research was mainly interested in contrastive analysis techniques of the sound segments in first and second

language in order to establish the differences between them and determine where transfer errors might occur whereas in the late twentieth century, pronunciation teaching profession not only put a greater emphasis on more practical approaches and took universal and educational processes into consideration in addition to transfer but also addressed suprasegmental features as well as segmentals. With the advent of new approaches to phonology, pronunciation has no longer been viewed as an isolated phenomenon but as "a primary medium for communication of information about ourselves as individuals and as representatives of different group" (Pennington, 1996, p.2).

Although phonology and pronunciation seem synonymous, in pedagogy, they should be dealt with individually. Chang (2006, p.3) explains this situation as following:

> The area of pronunciation and phonology is full of pitfalls with regard to terminology, both in the different use of terms by lay persons and experts, and the disagreement among experts concerning how the elements of phonology are organized and related to one another that phonology and pronunciation.

Burgess and Spencer (2000, p.191) define phonology of a target language as "theory and knowledge about how the sound system of the target language works, including both segmental and suprasegmental features" while pronunciation, as "the practice and meaningful use of TL phonological features in speaking, supported by practice in interpreting those phonological features in TL discourse that one hears". In other words, pronunciation requires listening and speaking practice by producing phonological features while phonemes described with suitable labels constitute utterances with a particular suprasegmental pattern and an appropriate type of voice quality in phonology (Burgess & Spencer, 2000). Distinguishing phonology and pronunciation, Chang (2006, p.4) argues that phonology and phonological form is related to the description of a system involving abstract sounds while pronunciation is actual use of this system in real life situations.

Phonology can be also defined as "the study of sound patterns of languages of pronunciation patterns of speakers" (Pennington, 1996, p.2). This field identifies the sounds of a language and builds a relationship between these sounds or contrasts them. According to Jarrah (2012) phonology refers to the patterns of phonetic elements which are abstractions and have no content. They are used in the phonological forms of meaningful entities of a language. For example, when a phoneme is changed in a word, a different word occurs.

In a similar vein, Gonzalez Bueno (1994) argues that phonology is concerned with identifying the speech sounds functioning within the language system which has a distinctive phonological value. These speech sounds are called phonemes which form the minimal units of significance in a phonological system. Providing a wider perspective, Pennington (1996)

asserts that phonology forms a basis for the other aspects of language and is related to several symbolic functions in human interaction such as various types of linguistic meaning, personal and group identity or emotion. The phonological differences of a language can point out the differences in other aspects of language. These differences can occur in grammatical, lexical or utterance meaning. Therefore, phonology facilitates to gain insight into how language works and the correlation between various aspects of linguistic or social meaning.

Distinguishing phonetics from phonology, Pennington (2006) maintains that phonology has been generally focused rather than phonetics in the field of linguistics. Therefore, phonological competence is significant to perceive and produce a language in all aspects such as lexis, syntax, and pragmatics. Phonology is a prominent key in presenting of self to others and functions as the indicator of gender, age, origin, socio-cultural groups and other connections that is acquired or desired. Also the field of phonology is the medium that oral language is practiced by speakers and received by listeners through. Speakers' pronunciation, not only at the segmental but also suprasegmental levels indicates their national or cultural group as well as other groups that they belong to, or desires to take after. Therefore, people trying to adapt their pronunciation to different groups or situations have more advantages than the ones whose pronunciation is adequate in terms of accent or speaking style (Pennington, 1999).

Yule (2010) suggests phonology is related to a theory about unconscious knowledge of language speakers about the sound patterns. Based on this idea, the researcher concludes that phonology is related to the abstract or mental aspect of the sounds of a language rather than the actual production of speech sounds. Similarly, comparing phonology with articulatory phonetics, Brown (2014) comments phonology deals with how sounds produced by vocal organs function in particular languages. Therefore, phonology is "language- specific" (Brown, 2014, p.5) and focuses on the way sounds take place, work and integrate in a particular language.

According to the previous studies related to acquisition of L2 phonology, since most language learners are inclined to have a foreign accent although they increase their L2 proficiency in other aspects of language, one of the most difficult tasks for L2 learners is acquisition of new sounds. Age, quality and quantity of L2 input and first language phonological system are factors that affect the acquisition L2 phonological system (Al-Abdely & Thai, 2016). Theoretical knowledge and definitions provided by second language practitioners and researchers may shed further light on how these factors affect their L2

phonological acquisition (Fu, 2010). As such, more research of L2 phonological issues is needed in order to support L2 learners.

Phonetics.

Shibuya (2005) suggests phonetics and phonology are both related to sounds. Phonetics is considerably concerned with sounds in a physical or physiological way. This field, for example, studies how sounds are articulated by utilizing various vocal organs or how sounds are transmitted and perceived whereas phonology deals with the sound systems and patterns or phonotactics in a particular language. Based on this idea, Shibuya (2005) assertsthat foreign accent stems from both phonological differences in the learners' L1 and L2 and phonetic differences. For this reason, not only phonology but also phonetics should be included in second language learners' speech. This situation shows that phonetics has an important role since this field comprises a basis for phonological research. Despite the agreement on the relationship between phonology and phonetics, Pennington (2007, p.2) claims that two fields have been operated independently and distinguishes phonology from phonetics expressing that "the focus of linguistics has generally been on phonology as an area separate from phonetics". In a similar vein, highlighting the established difference between the connection of the two fields, Major (1998) proposed that phonetics focuses on tangible speech which is uttered, heard and sent, phonology, on the other hand deals with the unobservable abstract form of phonological system of language. However, the researcher associated phonology with phonetics stating that phonology benefits from theories supplied by phonetics. This relationship between phonology and phonetics established by Major (1998) and Shibuya (2005) shows that there is an agreement among the pronunciation researchers and practitioners about the necessity of phonetics and theories provided by phonetics for phonological research.

Phonetics, as a broad concept, has received several definitions. One of the most comprehensive definitions is provided by Brown (2014) who takes phonetics into consideration along with several terms such as scientific, language and spoken form. According to Brown (2014, p.4), phonetics is scientific because it is objective but not subjective. He explains this definition as "phoneticians describe the sounds of languages in an unbiased dispassionate way. In contrast, many lay people speak in a prejudiced way about the sounds of their language". In phonetics, language is pronounced by using its actual pronunciation rather than people's own accent and this makes phonetics a descriptive subject although people try to dictate their own thoughts in pronunciation of language and affect others to use their pronunciation styles. Brown (2014, p.4) also emphasizes the importance of

"language" rather than *"a language"* meaning the ability of people to communicate subsuming all human languages as well as English. Therefore, even if only a few speakers use a language, the study of sounds of that language deserves the same attention. Finally, phonetics is described from the point of spoken form by Brown (2014) asserting that language is revealed in different mediums and the most common ones are spoken and written medium which have both productive and perceptive forms.

Phonetics is regarded as a branch of linguistics and the occupation of phonetics involves the study of the systems which the sounds are organized according to particular units and variation of these units in any spoken language. In addition to Brown (2014), Brosnahan and Malmberg (1976) also view phonetics not only as a science but alsoas an art which is to a large extent connected with the expression level of language. However, the content level of language is important within this field. Because phonetics considers only meaningful sound sequences as speech and deals with these sounds which are articulated by people' vocal organs and generate information in language. Therefore, phonetics plays an important part not only in linguistic theory but in linguistic practice.

As a phonetician, Heffner (1952) makes a distinction between phonetics as a science and as an art. Related to sounds and production of them, phonetics as a science studies general truths and laws whereas primary knowledge provided by scientific phonetics is employed within the field of phonetics as an art to assist the progress of reproduction of speech. Heffner (1952, p.1) summarizes the relationship between phonetics and linguistics as following:

> Phonetics as a science is an integral part of linguistics; phonetics as an art proceeds from the basic data of scientific phonetics. Linguistics is the scientific study of language, or languages; that is, linguistics strives to discover general truths and to formulate general laws relating to the growth and structure of its object, be this one or several languages. A language is commonly, and grossly, thought of as the sum-total of words and constructions, or combinations of words, used and understood by members of a considerable community.

Yule (2010, p.26) also supports that phonetics studies"the characteristics of speech sounds". Approaching the issue of phonetics from different perspectives, Lombana Giraldo (2015) deals with phonetics and phonology individually despite the acknowledgement of their relationship. The researcher connects phonetics with other disciplines such as neurology, medicine, physiology, pedagogy, cognitive science, computer science, and those which may need the knowledge of acoustic, perceptive, and articulatory phonetics as well as considering phonetics a part of linguistics. Distinguishing phonetics from phonology, the researcher defines phonetics as a field focusing on tangible processes including spoken language which is produced, transmitted and perceived.

In addition to pointing to key role of phonetics in the science of linguistics, Brosnahan and Malmberg (1976) emphasize the significance of its relationship with other fields as also stated by Lombana Giraldo (2015). A speech or voice therapist needs to have the knowledge of phonetics to cure speech defects. Audiology utilizes the knowledge of articulatory and acoustic phonetics for ear-training exercises or hearing tests as well. Similarly, phonetics helps the development of technical devices. A variety kinds of training of voice and articulation can be provided by phonetics. For example, a number of people who have different occupations such as actors, broadcasters or public speakers can benefit from the knowledge and experience obtained from acoustic and auditory phonetics which study the speech sounds in language to develop better speech abilities.

Phonetics can be investigated under three categories named as articulatory phonetics, acoustic phonetics and auditory phonetics. Each branch examines the appropriate aspect of sounds in spoken language.

Articulatory phonetics is the study of how speakers articulate speech sounds in the vocal tract. This field of phonetics deals with the oral equipment that speakers have and investigates the speech sound according to place and manner of articulation. The functioning of human speech system and apparatus is the point of interest in the branch of articulatory phonetics. Brown (2014, p.4) defines articulatory phonetics as "the speaker uses his/her vocal organs (lungs, vocal cords, tongue, lips, etc.) to produce sounds". This aspect is described as "the study of how speech sounds are made or articulated" by Yule (2010, p.26). Providing an introduction to articulatory phonetics, Gick, Wilson and Derrick (2012) deal with the basic anatomy and physiology of speech, the occurrence of a variety of speech sounds and the way to measure the vocal tract in order to learn about these speech sounds. Also, they explain the field of articulatory phonetics as the movements people make while speaking. To understand this field, it is necessary to learn about anatomy of speech production beginning with the brain and other parts of nervous system. Respiratory system and the other supporting muscles help the continuation the speech production.

Johnson (2016) suggests that articulatory phonetics forms the basis for linguistics since linguistics, firstly studies how sounds are produced within the structures of mouth. Articulatory phonetics are used by speech specialists and language pathologists to recover speech problems of children and individuals who have production troubles at a normal developmental rate and who suffer from speech loss because of the handicaps such as brain injury, stroke or other physical impairments. In reference to speech problems within the field of phonetics, Akamatsu (1995) mentioned English allegro speech stating that language users

are likely to display some features of allegro speech in which elision, loosening of articulation and assimilation are some of most common phonological processes that occur during language production in natural situations. The reasons for the occurrence of these processes, in his opinions, are explained and exemplified as follows:

> As the rate of speech increases, coordination in executing the various articulations necessary in the production of a sound deteriorates simply because the speech organs find it increasingly difficult, in the progressively less time available, to maintain reasonably clear-cut implementation of them. transition between an articulation and an adjacent one may be less than satisfactorily executed, giving rise to the phenomenon of assimilation whereby successive sounds become more or less homogeneous. Often a whole sound may be omitted.

On the other hand, acoustic phonetics is defined by Lombana Giraldo (2015, p.19) as "the studies the physical properties of speech sounds in terms of waves, with emphasis on how they are transmitted and perceived". Another description provided by Picone (1996, p.9) is that acoustic phonetics is "sounds of speech through the analysis of the speech waveform and spectrum". The acoustic properties of sounds are the principle focal point of acoustic phonetics and these properties are investigated with regard to the frequency and amplitude of vibration related to time. Voice quality, intensity, pitch of the voice can be considered as the acoustic properties. In the analysis of acoustic aspect of speech sounds, laboratory equipment is occupied.

Auditory phonetics investigates the hearing process that is the brain activity. Picone (1996, p.9) identifies this branch of phonetics as "studies the perceptual response to speech sounds as reflected in listener trials". Lombana Giraldo (2015) suggests that perceptive phonetics which is also called as auditory phonetics has two roles. One of them is to study the system in which sound waves reach the ear and nerve impulses are generated by means of these waves in the brain whereas the second studies how these sounds bear meaning by enablingindividuals to decode and interpret them". Acoustic, perceptive and articulatory phonetics provide the required knowledge for other sciences such as neurology, medicine and pedagogy and this situation makes phonetics independent since it collaborates with other sciences.

Phonological and phonemic awareness.

Phonemic Awareness is defined as "to notice, think about and work with the individual sounds in spoken words" (Armbruster, 2010, p. 1). For language learners, it is necessary to give attention to the speech sounds and phonemes that work within words in order to acquire correct pronunciation. Armbruster (2010, p.1) describes phonemes as "the

smallest parts of sounds in a spoken word that make a difference in the word's meaning". For instance, if the first phoneme of "lip" is replaced with the phoneme "r", the word changes from lip to rip and the meaning changes. It can be commented that phonemic awareness necessitates the competence to associate a sound in the context of other sounds within a word. Another comprehensible definition is provided by Ukrainetz, Nuspl, Wilkerson & Beddes (2011, p.50) who define phonemic awareness as "the understanding that spoken words can be separated and manipulated as minimally contrastive sound units (e.g., bone into/b/-/o/-/n/)". This types of awareness can be used to predict the performance level in word reading and spelling. Especially children can benefit from this awareness to learn the alphabetic principle and to discriminate the sounds of printed words.

Phonemic awareness is considered as a subcategory of phonological awareness and it has a narrower focus than phonological awareness that describes and work with larger parts of language. Ukrainetz et al. (2011, 0p.51) remark that "Phonemic awareness falls within the larger umbrella of phonological awareness" including not only the smallest unit of the phoneme but also larger units of onset-rime.

As for phonological awareness, a variety of definitions have been offered by many researchers. As defined by Cheung, Chen, Lai, Wong and Hills (2001, p.228), phonological awareness refers to "the ability to analyze spoken language into its component sounds and to manipulate these smaller units". Yılmaz (2013, p.2767) provides another definition as "the ability to attend the sound structure of language as distinct from its meaning". According to Muñoz (2007, p.7), phonological awareness is being aware of "the distinct parts within the stream of speech". Words, rhymes, syllables, onsets and rimes are included in phonological awareness while phonemic awareness deals with the individual sounds in spoken words. Therefore, these two terms are not identical. Viewing phonological awareness as a metalinguistic ability, Venkatagiri and Levis (2009, p.263) explains phonological awareness as "a construct, which is measured by how well learners can focus on the structure of the L2 system, in this case, the phonology".

Onsets and rimes constituting syllables may provide some implications for how to teach phonological awareness skills. Phonological awareness teaching has some level such as the analysis of words into syllables and of syllables into phonemes. These levels may cause difficulty while learning (Treiman & Zukowski, 1999). In other words, while the simplest phonological level is the ability to perceive and acquire the syllable unit of the language, the ability to analyze onset and rime improves later. The phoneme unit awareness is considered the most advanced level of phonological awareness. The same notions are also shared by

McBride-Chang, Bialystok, Chong and Li (2004) who explain the levels of phonological development. The simplest phonological awareness level refers to the ability to perceive and operate language at the syllabic unit while the most advanced level occurs at the phoneme unit.

Some phonological teaching approaches have been dicussed by Ukrainetz et al. (2011), which are different from each other in terms of scope and sequence of sound unit instruction. Comprehensive and sequential instruction is one of these approaches which is based on teaching only one skill at a particular time. The sequence begins from larger units to smaller ones. In another approach to teach phonological awareness, instruction is implemented only at the phonemic level sequencing phonemes from different ones to less salient phonemes. An alternative approach suggested by these researchers requires a less-structured ordering. In this type of teaching, different phoneme tasks and word shapes are presented at the same lesson. Among the factors that affect the development of phonological awareness, native language and instructional experiences can be discussed (McBride-Chang, et al., 2004). Phonological characteristics of native languages and phonemic instruction may cause to perform poorly in phonological awareness tasks and influence this process negatively. In addition, Venkatagiri and Levis (2007) consider phonological awareness to be a factor in the development of speech comprehensibility of L2 speakers. Therefore, phonological awareness instruction can be beneficial for greater speech comprehensibility.

As concerns phonemic awareness, explicit instruction is significant since it helps learners learn to spell the words by segmenting words into phonemes. When language learners have phonemic awareness, they can relate the sounds to the letters in a word. Yılmaz (2014) explains the importance of phonemic awareness as a prominent factor enabling learners to learn reading in an alphabetic writing system sincesounds or phonemes are represented by letters. The lack of phonemic awareness makes phonics useless. Readers need to be aware of how letters represent sounds. Phonological processing ability is attributed to phonemic awareness of readers and the main difference between good and bad readers is good readers' phonological processing ability (Yılmaz, 2014). Pronunciation teachers can benefit from a considerable number of activities to develop learners' phonemic awareness. Identifying and categorizing phonemes, segmenting words into phonemes as well as blending, deleting and adding phonemes to make new words can be involved in these activities. These tasks enable researchers to have a better understanding of phonological awareness. (Castles & Colheart, 2003)

Muñoz (2007) asserts that phonemic awareness deserves interest as it connects comprehension of oral language with the written form. Also, Yeh (2004) suggests phonemic awareness can be viewed as a metalinguistic skill which is crucial for the successful acquisition of reading and makes it clear that young children developed their reading ability after they received phonemic awareness instruction according to the research studies conducted to shed light on this situation.

Segmental and Suprasegmental Features of English Phonetics

Language teaching profession is a complex area in which there are several different issues that should be dealt with. Pronunciation teaching is one of the most controversial aspects of this profession and has received much research since it was regarded as a crucial factor for good communication especially for intelligibility. However, researchers cannot achieve a consensus about which features of pronunciation should be focused on to improve learners' pronunciation and intelligible communication although prosodic features of phonology have been emphasized in more research recently. (Huh, 2007).

Taking a comprehensive view of English language, Halliday, C. M. Matthiessen and C. Matthiessen (2004) suggests that it is required first to examine phonology which they divide into two parts; articulation and prosody. In their study, articulatory features also called segmental features are correlated with smaller segments, particularlywith phonemes. On the segmental level of phonology, each segment of speech is accepted as a phoneme. Segmental features are concerned with the phonemes that is defined as "a number of regularly used sounds" by Roach (2009, p.2) such as consonants and vowels in speech while suprasegmentals are related to acoustic properties extending over more than one segment such as intonation contours and stress patterns (Lee & Nusbaum, 1993). This means that suprasegmental features are related to larger chunks of speech spanning a number of segments such as words, phrases and sentences. Related to the difference between them, Macchi (1985, p.6) points out that "while segmental features are often considered to be represented in part by supraglottal aspects of articulation, suprasegmental features are not considered to be represented in terms of supraglottal articulations". Temporal properties, characteristics of the source signal, sunglottal pressure and acoustic consequences of subglottal articulatory characteristics represent suprasegmentals. (Macchi, 1985).

The explanation proposed by Lehiste (1976) can be provided as a support to the difference between segmental features and suprasegmental features. The researchers asserts that suprasegmentals are different from segmental features stating that"suprasegmental features are established by a comparison of items in sequence, whereas segmental features are

identifiable by inspection of the segment itself" (pp.225-226). Segmental distinctions are used for conveying differences between words in all languages while in some languages such as Mandarin Chinese, prosodic features functions in the same way since two different words with the same pattern of consonants and vowels differ in their pattern of intonation. In other languages such as English suprasegmentals do not play an important part in distinguishing words (Lee &Nusbaum, 1993).

Segmental phonology of languages involves the investigation of speech sounds identified as consonants and vowels and their production. Each speech sound that human beings make in order to speak is produced by a variety of muscles in the chest and in the larynx as well as vocal tract involving oral and nasal cavities. The understanding of the way of producing speech sounds requires the knowledge of the different parts of vocal tract. These part are defined as "*articulators*"and the field studying them is defined as "*articulatory phonetics"* (Roach, 2009, p. 8). The following figure represents the articulators offered by Roach, 2009, p.8):

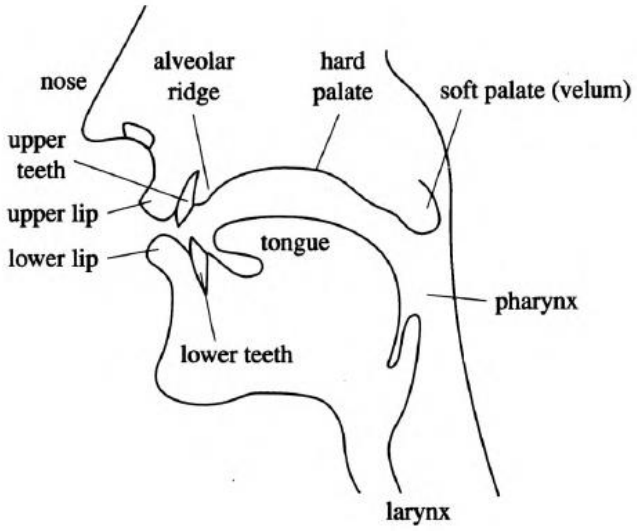


Figure 1. The articulators.

Giegerich (1992) divides the production of speech sounds into four interrelated processes: the initiation process in which the air stream provides the source of the energy needed for speech is provided by the air stream, phonation process in which the air stream passes through the larynx, the oro-nasal process which provides the direction of air stream by the velum into the oral or nasal cavity and articulation process. Articulatory phonetics deals with the articulation of two sound categories: consonants and vowels. According to Roach (2009), English spelling has complex nature, and thereby it is considerably significant to deal with English pronunciation in terms of phonemes rather than letters of alphabet. English language phonemes are divided into two categories: consonants and vowels.

A consonant can be defined as “a sound that is produced when the airstream is impeded by part of the vocal tract” (Murray&Christison, 2011, p. 75).English consonants can be investigated within three areas: place of articulation, manner of articulation and voicing. Place of articulation recognizes place and location of the sound inside the mouth. English consonants can be categorized as bilabials, labiodentals, dentals, alveolars, palatals, velars and glottals in terms of their place of articulation. Bilabial sounds are formed using both upper and lower lips such as sounds /m/ /b/ /p/. Labiodentals are articulated by the lower lip and upper teeth. The sounds /f/ and /v/ are examples of labiodentals. Dentals such as /θ/ and /ð/ are formed by placing the tongue tip behind the upper front teeth. Alveolars are articulated with the front part of the tongue on the alveolar ridge which “is the rough, bony ridge immediately behind and above the upper teeth (Yule, 2010, p.28). English has a number of alveolar consonants such as /t/, /d/, /s/, /z/, /n/, /r/ and /l/. In the articulation of palatals, as in the sounds /ʃ/ /ʒ/ “the front part of the tongue is raised towards the palate” (Giegerich, 1992) while velars are formed raising the back of the tongue towards the velum such as /k/ and /g/. The last subcategory is glottal in which there is only one sound /h/ articulated without tongue and other parts of the mouth.

Manner of articulation describes how speech sounds are articulated. Sounds are categorized as stops, fricatives, affricates, nasals, liquids, glides, glottal stops and flaps (Yule, 2010). Stops /p/,/b/,/t/,/d/ /g/ and /k/ are all articulated stopping the air stream for a short time and letting it go abruptly. Fricatives including /f/, /v/, / θ/, /ð /,/s/, /z/,/ʃ/ and /ʒ/, on the other hand, are produced by “blocking the air stream and having the air push through the very narrow opening” (Yule,2010, p.31). While affricates occur combining a brief stopping of the air stream with an obstructed release causing some friction as in /tʃ/ /dʒ/, nasals “/m/ /n/ and /ŋ/”are articulated by pushing the air from the nose. Liguids and glides are examined within the class of approximants which are articulated when “the airstream moves around the tongue and out the mouth in a relatively unobstructed manner”. (Celce-Murcia et al., 2010). The /l/ and /r/ are called as liquids since they are produced by placing the tongue in a manner obstructing the air flow without causing a friction. The sounds /w/ and /y/ are glides produced gliding the tongue. The following figure displays the classification of North American English consonants phonemes (Celce-Murcia et al. 2010, p.61):

Manner of Articulation	Place of Articulation						
	Bilabial	Labiodental	Dental	Alveolar	Palatal	Velar	Glottal
Stop							
voiceless	/p/			/t/		/k/	
voiced	/b/			/d/		/g/	
Fricative							
voiceless		/f/	/θ/	/s/	/ʃ/		/h/
voiced		/v/	/ð/	/z/	/ʒ/		
Affricate							
voiceless					/tʃ/		
voiced					/dʒ/		
Nasal							
voiced	/m/			/n/		/ŋ/	
Liquid							
voiced				/l/ (/r/)	/r/	[ɬ]	
Glide							
voiceless	(/hw/)*						
voiced	/w/				/y/		

* We have chosen to list /hw/ in parentheses since for many NAE speakers, the initial sounds of *which* and *witch* are not systematically differentiated; rather, the speaker uses /w/ for both words. For other speakers, /hw/ may be simply a variant of /w/ produced in certain words (such as *whether*) or a marker of special emphasis (such as in forceful pronunciations of the question "*What?*").

Figure 2. The classification of North American English consonants phonemes.

The last category occurs by the positions of vocal cords. When they are spread apart, the air coming from the lungs passes between them unimpeded and these sounds are called as voiceless such as /s/ and /f/. When the vocal folds are thrown together, on the other hand, the air from pushes vocal cords apart and create a vibration effect and these sounds are described as voiced such as /z/ and /v/. (Yule, 2010).

Providing a scientific description of vowel, Celce-Murcia et al. (2010, p.113) argue that "vowels are the core, or peak of the syllable". Articulation of vowels does not involve a restriction of the air flowing from the lungs as in all consonants. In other words, English vowels are articulated with a free flow of air and they are all voiced. There are 14 vowels in North American English vowel system. Eleven of them are simple vowels while the remaining three vowels are diphthongs. According to the classification of Celce-Murcia et al (2010), vowels are divided into four main categories: front, central, back vowels; high, mid, low vowels; rounded versus spread vowels and tense versus lax vowels. In the first category, which part of the tongue is involved is the determining factor for front, central and back vowels.For example, when a vowel is produced with the front part of the tongue, it is a front vowel such as /iy/ and /ɪ/. How high the tongue is when the vowels are articulated, on the other hand, determines the position of the vowels in the second category. To give an example, such vowels as /æ/ and /a/ are low vowels since the jaw is relatively low during articulation whereas vowels for which the jaw is relatively high, are high vowels such as /i/ and /u/.Lip position is the third factor which identifies the production of vowels. In this category, lips can be rounded, spread and neutral, which determines the position of vowels as rounded or spread.

The final category is tense versus lax vowels. When vowels such as /ɔ/ and /ow/ are articulated with more muscle tension, they are called as tense vowels, with the lax vowels such as /ɪ, ʊ, æ, ʌ, ɛ/, on the other hand, the muscles of the vocal apparatus are relatively loose. In Figure, the classification of English vowel system is provided (Celce-Murcia et al., 2010):

Phoneme	/iy/ pea feet	/ɪ/ pin fit	/ey/ paint fate	/ɛ/ pen fed	/æ/ pan fad	/ɑ/ pa fob	/ɔ/ Paul fought	/ow/ pole foe	/ʊ/ put foot	/uw/ pool fool	/ʌ/ pun fun	/ay/ pine fight	/aw/ pound foul	/ɔy/ poise foil
Tense or lax	Tense	Lax	Tense	Lax	Lax	Tense	Tense	Tense	Lax	Tense	Lax	Diphthong	Diphthong	Diphthong
Tongue position	Highest front near top of mouth	High front, but lower and more centered than /iy/	Mid-front, gliding up toward /iy/	Mid-front centered	Lower front than /ɛ/, centered	Lowest, central, lying flat on bottom	Low back	Mid-back, gliding up toward /uw/	High back and more centered than /ow/	Highest, back of tongue pushed up	Relaxed mid-level	Moves low central to high front	Moves low central to high back	Moves low back to high front
Jaw position	High closed	Slightly lower than /iy/	Begins lower than /ɪ/ but rises during glide	Open wider than /ey/	Slightly more open than /ɛ/; may drop a bit lower during articulation	Open widest	Closed slightly	Begins higher than /ɔ/; rises more during glide	Slightly higher	High, closed	Relaxed	Rises with tongue, closes	Rises with tongue, closes	Rises with tongue, closes
Lip position	Widely spread, smiling	Relaxed, slightly parted and spread	Spread more during glide to /iy/	Slightly spread	Spread	Yawn	Oval	Very rounded, closing like a camera shutter	Relaxed, slightly parted, weakly rounded	Closed and rounded, as for whistling	Relaxed, slightly parted	Moves from open to slightly parted and spread	Moves from open to slightly parted and round	Moves from oval to slightly parted and spread

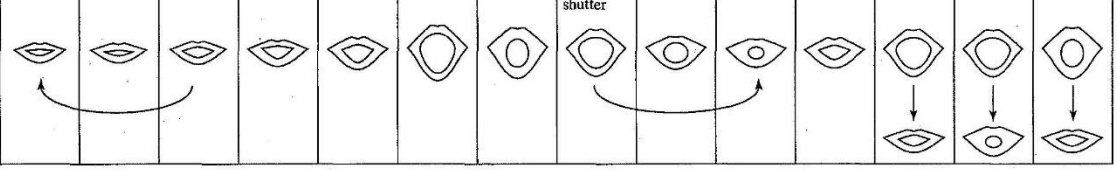


Figure 3. The classification of English vowel system.

Suprasegmentals that can be used interchangeably with prosody have several definitions. One of the broadest definitions is adopted by Wennerstrom (2001, p.4) who define prosody as "a general term encompassing intonation, rhythm, tempo, loudness and pauses, as these interact with syntax, lexical meaning and segmental phonology in spoken texts". According to Pierrehumbert (2003, p.121) who provides another broad definition, "the term prosody is used to cover all aspects of grouping, rhythm and prominence from subparts of the syllable up through the organization of words in the phrase". On the other hand, Chun (2002) distinguishes suprasegmentals from prosody and assumes suprasegmentals as the broadest term that include phonological units as distinct from segmental features while prosody is defined "as a continuum of functions and effects, ranging from the nonlinguistic or extralinguistic at one end, through the paralinguistic, to the essentially linguistic" (p.3). Features of voice quality are involved at the nonlinguistic end since they are related to speakers' vocal organs whereas stress and tone are taken into consideration at the linguistic end as they function within particular linguistic systems and differ from one language to

another. From this perspective, it can be concluded that a number of aspects of suprasegmentals such accentedness, pausing, tone, voice quality, pitch and prominence as can be included in prosody.

To clearly have a better understanding of prosody functioning, it is required to investigate suprasegmental features that create the music of English. These features are basically stress, rhythm and intonation. Approaching the issue from two different perspectives which are referred as phonetic signal and linguistic structure, Gussenhoven (2015) examines prosodic features of languages dividing them into two parts: "word prosody and sentence prosody" (p.714). In first perspective, acoustic signal can be analyzed into four dimensions of variation involving spectrum, duration, intensity and fundemantal frequency. As for the second perspective, an understanding of prosodic features is presupposed. More research, however, is needed to achieve the level of analytic accuracy that has been achieved for segmental features, but not for suprasegmental features.According to Gussenhoven's (2015) classification of prosody, word prosody includes three phonological structures in addition to a syllabified string of consonants and vowels. These structures are the "the existence of long segments by the side of short ones", "the presence of metrical structure" and "the presence of lexical tone" (p.714).

Quantity is one of the features that occurs in word prosody and can be identified with the help of moras constituting syllable rime and onset consonants. Word prosodic metrical structure refers that the syllables of a word can be different from each other in terms of prominence or weight and this situation makes the more prominent syllable stressed and the less prominent ones unstressed. The last structure of word prosody is lexical tone which leads to the notion of tone language when "tone(s) enter into the specification of words or morphemes" (p.716) such as in Mandarin. In sentence prosody, on the other hand, there are three sources of the tones in a sentence. The tones coming with the morphemes, intonational phrase and intonational pitch can be examples of sentence prosodic features. Selkirk (1995) includes intonation, phrasal rhythmic patterning and prosodic phrasing in sentence prosody.

Stress, intonation and rhythm are the most investigated prosodic features since they have greater impacts on speech intelligibility and comprehensibility and might be challenging for language learners. Jackson and O'Brien (2011) claim that prosodic features have greater impacts on the perceived strength of second language users' accent than segmental features and thereby prosodic training should be emphasized in foreign language classrooms in which language instructors particularly focus on segmental sounds of target language. Focusing on such prosodic features as stress, rhythm and intonation in their study, the researchers suggest

that prosodic features can be used in order to convey the meaning of utterances. Chun (2002) considers these features among the first aspects of languages that can be easily learned in L1 but seem to be difficult to learn in L2. Taking the issue into account from many perspectives such as theoretical linguistics, psycholinguistic and sociolinguistic considerations and applied linguistics, Chun (2002) discusses that although it was neglected for a long time due to its complexity and difficulty in acquiring, intonation regained its popularity with the developments in theory of intonation, because of the shift of interest from sounds, words and sentences to larger units such as texts and discourses and emphasis on communicative function rather than linguistic form. Based on this notion related to intonation, it can be inferred that intonation plays an important part in communicative and discourse based instruction rather than form focused or phonetic based instruction.

Stress is one of the most basic components of suprasegmentals and receives several definitions based on different perspectives. Stress means the prominence of some syllables in words and sentences. As a comprehensive definition, according to Liu (2017, p.29), stress is defined as "the strong emphasis that is given to one particular syllable in a word". The vowel known as the nucleus is considered as the heart of each syllable. Thus, a stressed syllable occurs when the vowel in that syllable is pronounced longer, louder and at a higher pitch than others within the word.

Chang (2006, p.5) defines stress as "unit of rhythm which is built from the syllable and thence to patterns in a word, phrase or sentence". It is possible to point out two types of stress one of which is word stress also called as lexical stress and the other is utterance stress. Chang (2006, p.5) defines word stress as "the pattern of stress among syllables of a word" whereas sentence stress, also called phrasal or utterance stress "the prominence of words within an utterance". In languages such as English, stress patterns are important and lexical items have their own stress patterns.

From the above-mentioned definitions and explanations, it can be summarized that stress is the prominence of a syllable that is achieved through an increase in loudness. Moreover, a stressed syllable is longer in duration and can be produced at a higher pitch than unstressed syllable. Some languages are stress-timed language such as English while many other languages are syllable-timed as in Spanish. Derwing (2010, p.28) explains stress-timed language as "English tends to stress one or two syllables and slur the rest of the word or sentence" as also stated by Deterding (2001, p.217) as "in which duration between stressed syllables tends towards regularity". This means that English sounds are often unclear to some speakers of other languages. In English, each word has a primary syllable whereas in longer

words that have several syllables, there may be a secondary stress. The stressed and unstressed syllables are more distinctive in some languages such as English and German.

Needless to say that unstressed syllables should be reduced in order to hear primary stress clearly. However, it is difficult to predict the position of stress within words that have two or more syllables and therefore L2 learners have to look up the dictionary to learn which syllables are stressed in English words. Native speakers can acquire stress pattern subconsciously and implicitly while adult L2 learners may need exposure to explicit teaching to learn stress patterns. The lack of stress knowledge in English may cause a distortion in word storing and thus in the flow of conversation. Liu (2017) claims that word stress forms the basis of prosodic development and her reasoning is that rhythm might be compromised at the phrasal level if words are not pronounced correctly at the lexical level, which results in a loss of comprehensibility.

As it is obvious in the above explanation, rhythm has a close relationship with stress and it is defined as "the combination of stressed and unstressed syllables within multisyllabic words which creates the cadence of an utterance" (Liu,2017, p.18). This definition indicates that the stressed and unstressed syllables play an important part in English rhythm. Grabe and Low (2002, p.1) also define rhythm as "as an effect involving the isochronous recurrence of some type of speech unit". Emphasizing that rhythm is effective on communicative competence, Carey (2002, p.63) clarifies the functioning of "rhythm" in English as:

> The combination of stressed and unstressed syllables in English gives the speech of English its characteristic rhythm. The unit of rhythm in an utterance is the *foot*. A foot comprises of a stressed syllable, optionally followed by one or more unstressed syllables. A new foot commences at the point at which the next prominent syllable occurs. Each foot tends towards a more or less equal duration between each prominent syllable.

Rhythmic units determine the category that languages belong to. In addition to two categories mentioned above which are stress-timed and syllable-timed languages, there are also mora-timed languages such as Japanese, Luganda and Gibertese in which "each mora is of similar duration; syllable duration tends to be dependent on the number of morae within the syllable"(Koike,2014, p.363). In this context, mora is defined as "a unit of syllable weight". Grabe and Low (2002, p.1) describe morae as "sub-units of syllables consisting of one short vowel and any preceding onset consonants". In Japanese, for example, four types of morae can be identified:"vowel (V), consonant-(/y/)-vowel (C(y)V), nasal coda (N), and geminate consonant (Q)". (Koike, 2014, p.363). Stress-timed languages have interval between stresses and rhythmic feet are which are reported to be near-equal while syllable-timed languages have successive syllables asserted to be near-equal length. Therefore, mora-timed languages are

said to be more similar to syllable-timed languages. Explaining the significant role of speech rhythm in the processing of speech, Hua (2003) remarks that stress-timed languages requires native users of language to segment at the beginning of a stressed syllable. In syllable-timed languages, on the other hand, segmentation appears at each syllable. This situation can also be explained the units of rhythm, perceptual prominence and segmentation are combined in a particular language.

Intonation is a feature of prosody which is more based on the discourse context and speakers' intent while stress and rhythm are rule governed. (Liu, 2017). Although all of these three aspects of suprasegmentals are involved in an interaction and have impacts on one another, intonation is the one that has received much research since it helps greatly to convey speaker's meaning which is necessary for an effective communication. Hirst and Cristo (1998) claim that description of intonation of a language or dialects is more difficult than other features of prosody since it is universal and what makes it universal is all languages have its own system of intonation. Also, the universality of intonation stems from the fact that linguistic and paralinguistic functions of this intonation can be used in common with other languages from different origins. Based on this notion, it can be asserted that intonation is different from other pronunciation features because intonation conveys meaning directly in contrast to other aspects of pronunciation.

Pierrehumbert (2003, p.121) describes intonation as "a tonal / melodic features assigned at the phrasal level". She comments that some languages have the melody which is completely assigned at the phrasal level as a function of pragmatic meaning such as in English. Approaching the issue from a more specific perspective, Gorjian, Hayati, and Pourkhoni (2013, p. 36) defines this term as "the combination of musical tones on which we pronounce the syllables that make up our speech" and based on this definition, it can be explained that the rise and fall of voice on particular words in a sentence refers intonation. There are four different tones of voice involving low, normal, high, and extra high. The description of English intonation may create some challenges in phonology since the same sentence that have the same stress patterns can be pronounced with different melodies which may change meaning. Pierrehumbert (1980, p.7) explains the intractability of English intonation as following:

> One of the more intractable problems in phonology has been the description of English intonation. It is clear that the same sentence, with the same stress pattern, can be said with many different melodies in English, and that these melodies have an important role in its expressive force.

This echoes what Roach (2009) wrote almost a decade ago, namely that “What is intonation? No definition is completely satisfactory, but any attempt at a definition must recognise that the pitch of the voice plays the most important part”.On the other hand, Levis (1999, p.38) contributes to the respective literature defining intonation as “the way someone says something”and suggests that in English intonation,how something is said involvesboth pitch movement and length, intensity, and several other factors such as voice quality. Emphasizing its specific features in each language, Ramírez Verdugo (2006) refers that intonation formsthe melody of speech contributing to organizing and conveying the message accurately.

Keeping in mind the discussion provided by manyresearchers with regards to the importance of intonation in language teaching, (Bowen, 1956; Levis, 1999; Ramirez Verdugo, 2006; Tanner & Landon, 2009; Tarone, 1973), it is reasonable to claim that intonation must be taken into consideration within the field of language learning and teaching.Intonation deserves a great amount of attention in many respects. For example, Tergujeff (2013) emphasizes the importance of intonation in communication as they reflect emotions, interest and attitudes besides helping listeners understand the grammatical structure of speech and giving cues in turn-taking of the interlocutors. In addition to this, intonation has its own specific features that can be changed according to the language, dialect or even the speakers’ attitudes and styles. Topal (2017) emphasizes the importance of intonation in language teaching from different perspectives. According to the researcher, the flow of conversation is facilitated through intonation since it points out turn-taking and end of a conversation. In addition, correct use of intonation assists native-speaking listeners to understand the intended meaning of speakers and thereby provides continuance of successful communication.According to Bowen (1956), intonation receives relatively little attention even if this lack of concern does not seem to be compatible with its obvious importance. The issue is explained by (Bowen, 1956, p.30) with the following utterances:

> Yet, in spite of its admitted importance, intonation, if taught at all, is the last facet of the language that is addressed in the foreign-language classroom. It is perhaps of some significance to note that a child of around 14 to 18 months, who has as yet very few vocabulary items, has already acquired the intonation patterns of his language and, in babbling his nonsense syllables, never goes beyond these established patterns. If learning a second language is anything at all like learning a first language, correct intonation should be not the very last, but the very first concern.

Given these statements provided by the above-mentioned researchers, intonation is a vital aspect of language production and perception, especially at a discourse level. Communication efficiency can be enhanced by correct intonation.On the contrary, inaccurate

use of intonation may give rise to communicative breakdowns.Also, intonation is highly related to prestige and plays an important part in social interactions. In addition to communicative aspects of intonation,for some native-speaking listeners, it may be major or minor a significant reason for evaluating speakers with poor intonation negatively. For these reasons, the elimination or reduction of the intonation component in language instruction may influence learners' self-confidence, social belongings totarget community, effective communication and even overall language proficiency.

Intonation can be associated with stress for it has the same functioning as stress. Just as there is a stressed syllable in a word, sentences have proper patterns of stressed words. In addition to the relationship between intonation and stress, Nolan (2006), also, correlates intonation with pitch not only since pitch forms the basis of intonation but also intonation can be considered as "the use of pitch over the domain of the utterance" (p.433). Patterns of timing, loudness and voice quality are the dimensions that cannot be dissociated from pitch.

Nolan (2006) suggests a number of different types of information that can be conveyed through intonation. In his study, he states that intonation not only functions as the punctuation of spoken languages identifying the division between grammatical units but also highlights points of high informational importance in utterance. Also, it has a discourse function in which an utterance can be constituted as a statement or a question with different uses of intonation. In terms of speakers and listeners, functions of intonation are explained by Nolan (2006, p.433) as following:

> Intonation can be used by a speaker to convey an attitude such as friendliness, enthusiasm, or hostility; and listeners can use intonation-related phenomena in the voice to make inferences about a speaker's state, including excitement, depression, and tiredness. Intonation can also, for instance, help to regulate turn-taking in conversation, since there are intonational mechanisms speakers can use to indicate that they have had their say, or, conversely, that they are in full flow and don't want to be interrupted.

As a conclusion, segmental and suprasegmental features of languages are the issues worth mentioning in the discussion of pronunciation and there are different views related to the role and importance of segmentals and suprasegmentals in the acquisition of pronunciation and its components such as intelligibility and comprehensibility which will be touched upon in this study since they relate directly to the acquisition of pronunciation. Liu (2017) emphasizes recent findings showing that prosody has greater effects on pronunciation acquisition than segmental. However, to have a better understanding the contribution of these features to the field of pronunciation acquisition, more research might be essential.

Pronunciation Related Issues

Foreign accent.

Derwing and Munro (2009) reveal that accent means various ways of producing speech. Supporting this notion, the researchers define accent as"to the ways in which their speech differs from that local variety of English and the impact of that difference on speakers and listeners" (p.477). In this sense, learners share some characteristic features with learners in other contexts which have its own idiosyncrasies. Accent should be investigated since it causes prejudice against speakers and leads to apprehension on the part of language users who avoid speaking because of feeling insecure about their own pronunciation although intelligibility and comprehensibility are considered more important than accentedness. Derwing (2003) asserts that many learners want to speak like a native speaker while native speakers view learners who have foreign accent incompetent and they might be evaluated negatively because of their accents (Galloway, 1980).

As for foreign accent which is common among second and foreign language learners, it can be defined as "a phenomenological experience of listeners that is derived from detectable acoustic (and perhaps visual) differences between native and non-native speakers in the pronunciation of sounds or other speech units" (Flege, 1998, p. 229). In regard to speech accent, Chung (2003, p.2) defined the term as "the unique qualities that characterize the identity of a linguistic group, as opposed to the unique qualities of an individual speaker". Geographical basis and ethnic basis are the types of speech accent referring aspects shared within a particular linguistic group. The reasons that create foreign accent differs from one accent to another. For instance, in some communities, voice onset time is effective while vowel quality causes accent in another community.

The American Speech- Language-Hearing Association (ASHA) defines an accent as "the unique way that speech is pronounced by a group of people speaking the same language" and maintains to further delineate the definition of "accent" by classifying it into two primary types which are regional and foreign accents. According to the examples given to describe types of accent indicate that regional accents are variations of pronunciation shared by people of the same L1. This type of accent may change from one location to another. On the other hand, a foreign accent results from having a native language since childhood and then learning a second language as an adult. According to ASHA, individuals' accents depend on many factors and can be considered as natural parts of spoken languages. Accents are not regarded as a speech or language disorder, and any accent is not considered "better" than one another.

One of the most frequently cited definitions is presented by Munro and Derwing (1995, p. 289) who describe foreign accent as “non-pathological speech that differs in some noticeable respects from native speaker pronunciation norms” (cited in Atagi, 2014). According to Park (2008), accentedness is an aspect examining a listener’s perceptual processes of indexical properties of second language speech. Indexical properties include knowledge revealing personal characteristics of the speaker such as speakers’ background, age, gender, and identity. Researchers deal with this area by asking listeners of accented speech to listen a speech in L2 and categorize the speakers’ L2 competence in pronunciation compared to native speakers (Park, 2008).

Approaching the issue from the perspective of group identity issue, Arslan (1996, p.19) defines foreign accent “as the pattern of pronunciation features which characterize an individual's speech as belonging to a particular language group”. According to Arslan (1996), language speakers from another community recognize themselves as non-native due to specific pronunciation patterns and acquiring language at an early age may reduce foreign accent. However, some speakers who learn language after their childhood can improve their accent by gaining more experience in time and more exposure to native speakers. Comparing pronunciation and accent, Chang (2006) states that accent is used to specify individual characteristics of speech displaying the speaker’s background whereas pronunciation is utilized in pedagogical contexts when speech accuracy is discussed in conveying all facets of meaning and intent.

Producing speech with a foreign accent indicates that the speakers are second language users. Those who acquire a language after early childhood may suffer from having a different accent from native speakers. This stems from the fact that first language affects the production and perception of sound patterns of the second language. Second language users can be influenced by even the slightest differences in pronunciation patterns of their speech community. These speakers can perform foreign accent in the smallest units of speech as well. Sharing a similar perspective, Munro (2008) states that the existence of foreign accents gains a better understanding of clearest evidence about the effects of a first language on the acquisition of the second language. Foreign accent is a factor that causes non-native speakers to be easily recognized by other interlocutors.

Accent perception research mainly concentrates on speaker dependent factors such as voice onset time of consonants, age of arrival to the L2-speaking country, length of residence in the L2-speaking country, amount of L2 use, motivation for learning L2, and suprasegmental aspects of speech (Kremenchugsky, 2013). According to Atagi (2014),

foreign accent tends to be varyingboth across and within talkersand various individual talker factors are influential in shaping the variability in nonnative speech.Most researchers carried out studies to contribute this field and their studies shed further light on perception of what contributes to the development of accents (Anderson-Hsieh, Johnson & Koeler, 1992; Derwing & Munro, 2009; Edwards, 2008Flege, Birdsong, Bialystok, Mack, Sung, & Tsukada, 2006; Flege, Munro & Mackay, 1995; Gonzales-Bueno, 1997; Kang, 2010; Moyer, 2007; Munro, Derwing, & Burgess, 2010; Munro &Mann, 2005; Piske, MacKay & Flege, 2001; Schoonmaker-Gates, 2012).

Beginning with the fundemantal research of Asher and Garcia in 1969, a number of studies were executed to find out to what extent other factors including age, gender, and length of residence and use of L1 influence foreign accent. The researchers tried to detect the optimal age of learning a second language and compared the performance of Cuban children's pronunciation of English sentences to their American counterparts. According to the findings of research, if a child is under the age of six when he comes to the United States, he/she has the highest probability of acquiring pronunciation of English like a native speaker while a child arriving at age 13 or older has the lowest chance of acquiring native-like pronunciations. However, a very small number of older children achieved excellent pronunciation, which signifies that there are other factors apart from speakers' age of arrival to the United States such as gender influencing the likelihood of obtaining a native-like accent (Asher & Garcia, 1969). Likewise, comparing chronological age to foreign accent, Flege et al. (2006) carried out a study to evaluate the influence of age and length of residence on degree of foreign accent in a second language. In the study, Korean adults and children living in North America and native English adults and children participated in the study. Native Korean children and adults produced English sentences and native English speakers rated the sentences for degree of foreign accent using a 9-point scale. The analysis of the data revealed that native Korean children were judged to record sentences with milder foreign accent than native Korean adults. According to the results of the study mentioned above, it can be concluded that age is a significant factor that affects the overall degree of perceived foreign accent. Therefore, it seems reasonable to think that children's second language pronunciation can improve gradually since they receive more L2 input and they can have a more native-like accent.

Also, Piske et al. (2001) conducted an experimental study which investigated the influence of many factors on degree of perceived foreign accent, such as individual's age of learning the L2, length of residence in the L2-speaking country, gender, and amount of continued L1 use. There were 18 participants who were born and raised in Canada and 72

participants who were born in Italy and moved to Canada. They were asked to produce sentences in English and their productions of the sentences were recorded on a tape. 9 native speakers of Canadian English evaluated the sentences produced by 90 talkers. A preliminary analysis of the data obtained from the participants revealed that the amount of an individual's continued L1 use and the age had a significant effect on the degree of perceived foreign accent while gender and length of residence in the L2-speaking country did not influence the perceived degree of foreign accent. Based on the results of this study, it can be remarked that there is a relationship between age of language learning and degree of L2 foreign accent. Even if age appears to be the most important factor for the degree of perceived foreign accent, other factors such as L1 use, length of residence and motivation are particularly needed for ultimate attainment in L2 pronunciation.

The relationship between age and accent was also executed by Munro and Mann (2005). The researchers aimed to investigate the relationship between age of learning language and the perceived degree of foreign accent. Two groups of participants were involved in the study. 42 participants who were Mandarin speakers provided speech samples in English including single words, sentences and a short paragraph.14 participants, on the other hand, served as raters and the raters evaluated these speeches on how native they sounded by clicking on a vertical continuous scale with a mouse pointer. According to the results of the study, they found out that the degree of perceived accent deviates from native like pronunciation because of age and there is no definitive age of immersion delimiting a critical period to develop a native accent. In a similar vein, Flege et al. (1995) identify a strong relationship between age of L2 learning and foreign accent, which is based on a study they conducted to a group of 240 Italian immigrant subjects between the ages of 2 and 23 who lived in Canada. The sentences produced by Italian immigrants were rated by native English speaking listeners using a continuous scale. The findings of this study suggest that there is a strong relationship between the age of learning language and foreign accent as well. Based on this result, it can be stated that it is difficult to attain a native-like accent after a certain age foreign accents may exist in the L2 speech of individuals even if they begin learning English as young children. Therefore, foreign accent is a natural and common facet of late second language acquisition.

Phonological aspects of languages are considered to be influential in perceived foreign accent as well. For example, Gonzales-Bueno (1997) conducted a study in order to investigate whether the variation of temporal characteristics of stops in a particular Spanish utterance has an effect on the perception of foreigness of speech. The participants of the study were a native

speaker of American English whose utterance were used as stimuli and the listeners who were native Spanish speakers. The speaker manipulated an utterance in Spanish language with special computer programs and the native Spanish listeners rated the manipulated utterances as being foreign or native. The findings of the study showed that the variation of the temporal characteristics of stops had an impact on the perception of accentedness of speech by native listeners. Also, monolingual language speaking listeners perceived the speakers' voiceless velar stop /k/ like a native speaker and aspiration do not influence accent perception. Approaching the issue from a broader perspective, Major (2001) claims that phonological features result in a global foreign accent. The researcher attributes the occurrence of foreign accent to the differences which is a combination of individual nonnative phonetic segments, sequences of these segments and nonnative prosody. Based on this notion, it can be suggested that foreign accent may occur if language learners cannot master one of these levels. For a native or near-native accent, all of the levels should be achieved successfully.

Similarly, Anderson-Hsieh et al. (1992) consider prosody as the most influential reason for speech accent. Related to the relationship between suprasegmentals and accentedness, Kang (2010) claims that suprasegmentals have been paid more attention in ESL/EFL pedagogy since communicative language teaching was emphasized as language teaching method in language classrooms. Yet, more research is still needed for a better understanding of how individual suprasegmental features influence listeners' judgments of non-native speakers' accented speech. In his study, Kang (2010) investigated the effects of prosodic features on L2 comprehensibility and foreign accentedness. 11 international teaching assistants were the participants of the study as speakers while 58 undergraduate students who were the native speakers of English participated in the study as listeners. Using the PRAAT computer program, international teaching assistants simulated instructional presentations which were rated for measures of speech rate, pauses, stress, and pitch range by undergraduate students. The findings revealed that listeners' perception of an accent was significantly influenced by suprasegmental features and pitch range was the best predictor of accent ratings. In addition to this, students mostly commented on factors related to suprasegmental features such as intonation, stress and volume. Based on the results of the studies mentioned above, it can be concluded that prosodic features have notable impacts on the perception of accented speech.

In addition to the factors mentioned above, learners' motivation and attitudes are also influential to their accent. Moyer (2007) questions whether accent is a matter to be solved if the message received is understood and examines to what extend the learners' attitudes affect

accent. In the 20th century, some methods such as Direct Method or Audiolingualism focused on accent more than now. Today, a standardized approach cannot be agreed on to teach pronunciation although there has been much research on this issue. Furthermore, the applicability of accent to second language acquisition is too difficult to investigate empirically and the effect of accent on communication is not fully elucidated. (Moyer, 2007). The effects of attitudes and motivation on foreign accent was examined surveying 42 subjects from 15 different language backgrounds by Moyer (2007) and the study carried out has shown that attitudes toward language are significant for the perception of accent as well as other factors including age, length of residence and use of first language.

Listener of a message is influential in communication as well as speaker of that message. According to Kremenchugsky (2013), listener-dependent variables such as age, status of hearing, experience with hearing foreign accented speech and speakers' L1 background play an important part in the degree of perceived accent.In addition to speaker and listener-dependent factors, listening context in which communication between speaker and listener occurs should be taken into consideration in the accent research.How the stimuli are presented, the presence or absence of noise and the frequency of the words presented in a speech sample are the most important factors in listening context provided byKremenchugsky (2013). Peng and Wang (2016) also claim that background noise level affects learners' academic achievement. Therefore, the environment in which an individual with a foreign accent speaks about something should be examined so as to predict to what extent communication breakdown may appear due to outer environmental conditions.

Accent may cause many disorders in the context of language such miscommunication, racism and discrimination as. These disorders may be experienced by many second language speakers. Munro (2003, p.38) recognizes three types of accent discrimination which are called as "discrimination in employment due to inappropriate concern with accent, discrimination due to accent stereotyping, and harassment based on accent". One of the best ways to overcome these types of discrimination is that ESL teachers can establish knowledge of the role of accent in communication and encourage positive attitudes toward L2 speakers' accent in the classroom and community.

Highlighting the social aspects of foreign accent with regard to discrimination, Gluszek and Dovidio (2010) claim that foreign-accented speech compromises an important part of indivduals' social identity and conveys important social information. They pay as much attention to importance of the experiences of speakers with nonnative accent as the perception of listeners on nonnative speakers and carried out studies to discover how accented

speakers view stigmatization and discrimination. These studies indicate that speakers with a foreign accent experience stigmatization described as "perceptions that others will react negatively to the speaker" (p.225) and difficulties in communication.

The relationship between foreign accented speakers and the feelings of social belongings which is a very strong human need is worth mentioning. Foreign accented speech drives accented people to confusion about whether they are accepted in the community of target language while those with native accents have no worries about problems in communication. As a result, Gluszek and Dovidio (2010) shed more light in the importance of accent and its impacts on speakers in social context from the perspective of accented speakers. The knowledge of discrimination and communication problems may gain conceptual and pragmatic favors and determines "dynamic similarities to other forms of stigma while recognizing how communication issues may play a distinctive role in the stigma of nonnative accents" (Gluszek & Dovidio, 2010, p.231). Further research is essential to understand in what ways the perceptions of speakers with foreign accent moderate the experiences of stigmatization and problems in communication in addition to their relationships and consequences. Emphasizing the social implications of accented speech, Cargile (2000) maintains the idea that despite the significance of perceiving general responses to accented speech, studying the consequences of this speech in social contexts is more significant.

In addition to the researchers pointed out above, Dragojevic et al. (2017) suggest that negative language attitudes lead to discrimination in the workplace, housing courts and education since accented speakers of English language are likely not to be rated as favorably as native accented English speakers on different traits. Therefore, it is theoretically and socially important to investigate the cognitive and affective processes included in attitudes toward foreign accented speakers. Social categorization and stereotyping are the cognitive processes reflected by language attitudes. These cognitive processes imply that listeners may decide which social group speakers belong to by using linguistic cues such as accent and they ascribe stereotypic traits to those speakers. These attitudes show their stereotypes toward accented people (Dragovic et al, 2017).

Accented people are not regarded favorably in some communities since it is regarded as one of characteristics such as skin color, dress or mannerism used to define someone as foreign. This is also accepted as an undesirable characteristic and an excuse to discriminate people with foreign accent. Discriminatory attitudes toward specific groups of people may occur due to accent stereotyping that is a phenomenon described by Munro (2003) meaning that some people may remember their negative feeling against a particular group when they

hear speech patterns related to that group. When a speech patterns is unintelligible or is too difficult to understand, people may feel unfavorable toward it since they have to spend more effort to perceive that speech (Munro, 2003).

Derwing and Munro (2009) view accent as a disorder requiring remediation and examine three dimensions of accent which are salient, intelligibility and comprehensibility to shed light on the misconceptions about accent. Accent may also lead to social cost. For example, individuals may not be understood although they have good grammar and vocabulary of target language which is a frustrating and embarrassing situation for speakers and their interlocutors.

Flege (1998), on the other hand, identifies possible effects of foreign accent on L2 users such as accent detection, diminished acceptability, intelligibility and negative evaluation. Although accent has some disadvantages, it includes some advantages as well. Second language speakers can benefit from having an accent in terms of modified input and sophistication. From this point of view, foreign accent is not viewed as a disorder and not only learners but also teachers of second language do not mainly focus on accent-free pronunciation since many users of second language around the world do not have communication breakdown while they are using foreign accented speech (Munro, 2008). Providing support to this issue, Gass and Varonis (1984) suggest a benefit of accent which is that listeners of accented speakers can regulate speech input that they provide to second language users and this situation contributes to communication.

Pronunciation practitioners have emphasized the importance of intelligibility for good communication although some of the researchers and educators are prejudiced against foreign accent. E. M. Brennan and J. S. Brennan (1981) support that native speakers are inclined to degrade speakers who have foreign accent. This situation has led to the rise of accent reduction programs aiming to reduce foreign accent. These programs regard foreign accent as a bad thing and a problem that should be coped with. Similarly, Lippi-Green (1997) suggests that people who learn English as a foreign or second language can benefit from accent reduction courses for a better pronunciation. However, these courses should be carried out by well-trained instructors in phonology and phonetics who are able to understand the structural differences between the languages.This idea is also accepted by Griffen (1991) claiming that pronunciation instruction aims to make learners speak language as a native speaker. Accent reduction programs may force language instructors, curriculum designers and textbook writers to pay regard to this issue (as cited in Munro and Derwing, 1995).

Native speaker.

It is typical to assert that English is incomparable lingua franca in the world and it is likely to dominate its supreme for many years. The number of English speakers as a second and foreign language is constantly increasing although individuals speaking English have a particular advantage over the ones for whom English is a second or foreign language. Likewise, it seems that non-native speakers of English have many difficulties in competing with native speakers as well as non-native teachers of English. (Medgyes, 2001).

From a traditional perspective, Medgyes (2001, p.430) defines a native speaker of English as "someone who speaks English as his or her native language also called mother tongue, first language or L1". Another widely cited definition is provided by Cook (2013, p.2) who defines native speaker as "person who still speaks the language they learnt in childhood, often seen as monolingual". Native speakers have a superior power on their language and in-depth information of their culture. According to Cook (2013), native speakers have the knowledge of the system of the language which they cannot verbalize clearly since it is implicit. Considering the issue from the perspective of education, on the other hand, native speaker is dealt with by linguists and sociolinguists as well as educators. For further knowledge about native and non-native language teachers, the role of native speakers in language teaching should be identified.

Based on the studies conducted to gain a better understanding of the native speaker concept, Cook (1999) states that the notion of native speaker has recently been the center of attraction within the fields of language teaching and second language acquisition. According to Breckenridge (2010), in the field of English language teaching, the desire for native teacher dates back to the 1961 Commonwealth Conference on the Teaching of English as a Second Language, in Makarere, Uganda. The issue concerning the effectiveness of native teachers in language teaching in contrast to non-native teachers is still being discussed despite the fact that it has been viewed as a problem to employ native speakers as language teachers for decades.

Emphasizing the theoretical aspect of the notion of native speaker, Davies (2003, p.1) defines native speaker as "people who have a special control over a language, insider knowledge about 'their' language" and continues this definition by suggesting that native speakers know what the language is and is not and thereby they serve as the models who language learners may seek support for the truth about the language.Similarly, dealing with the term 'native speaker' from the point view of linguists, Choe (2005, p.21) defines native

speaker “as a person who is able to judge intuitively whether a sentence is grammatical or not”.

Highlighting the differences between native and non-native speaker of a language, Davies (2003, p.210) states that the native speaker is a concept containing six characteristics: “1 childhood acquisition of the language; 2) intuition about acceptability of language use 3) intuition about grammar 4) a wide range of communicative competence 5) creative use of the language and 6) the capacity to interpret and translate mother tongue”. Except for the first characteristic which implies the time the language is acquired, other five characteristics can be ascribed to non-native speakers of a language.

As previous literature suggests, there have been many studies conducted to compare the differences between not only native and non-native speaker but also native and non-native teachers, and to find out similarities between these two groups of people (Benke & Medgyes, 2005; Coppieters, 1987; Diaz, 2015; Hopp, 2010; Kramsch, 1997; Kurhila, 2001; Lasagabaster & Sierra, 2002; Medgyes, 1994).The concepts of NS and NNS has attracted professionals’ attention with a number of aspects investigated in recent years, which has led to the occurrence of several taxonomies and particular vocabulary related to native and non-native speaker issues (Benke & Medgyes, 2005). Aiming to examine learners’ attitudes and opinions about non-native and native teachers’ teaching behaviours, Benke and Medgyes (2005) carried out a study by applying a multi-item questionnaire to the participants including 422 Hungarian learners of English who speak Hungarian language as their native language. Participants were exposed to English more than by not only native but also non-native speaking teachers and they had lower intermediate level of proficiency. Conducting a quantitative study, the researcher used a questionnaire in order to explore participants’ perceptions about the differences between native and nonnative teachers. One of the most striking conclusions obtained in this study is that learners found their nonnative speaking (NNS) teachers more beneficial in terms of teaching grammar and vocabulary and developing translation abilities while they criticized them for their bad pronunciation and language use. With regard to native speaker teachers, learners had positive attitudes and opinions and they expressed that NS teachers are very good at teaching conversation classes and they are perfect models for imitation. Most of the students found their native speaking (NS) teachers more friendly and lively than NNS teachers while some students thought that it is more difficult to understand NS teachers who do not also include grammar teaching into classes. On the basis of these findings, it can be suggested that native teachers can contribute to learners’ phonological development rather than nonnative teachers. However, that is not to say that

nonnative teachers are completely inefficient in pronunciation teaching. It should be admitted that the picture is much more complicated than explained above. In the simplest term, yet, nonnative language teachers can promote language learning efficiently if they have sufficient levels of language proficiency in all its aspects as well as positive attitudes toward teaching language and teaching culture.

Another contribution to the relevant issue was provided by Diaz (2015) who focused on students' preferences in her study conducted to explore students' preferences about NS and NNS teachers. 78 university students were distributed a questionnaire and the results showed that students preferred native teachers of English for development of pronunciation and for oral exercises while they tended to choose non-native teachers of English for grammar vocabulary and culture learning. Diaz (2015) asserts the idea that the *"native speaker only"* (p.96) policy was rejected in this study although many employers try to persuade learners to prefer native speakers as their teachers.

Questioning to what extent non-native speakers attain a level of native-like proficiency, Coppieters (1987) investigates the differences between non-native speakers' grammar system and native speakers' grammar competency. The researcher selected nonnative speakers who could not be distinguished from native speakers in terms of their language competency in target language. In the study, a list of 107 sentences was constructed and the participants including native and nonnative speakers were interviewed about these sentences illustrating different aspects of target language. Also, quantitative data were collected by questionnaire. According to the results of the study, it can be concluded that native and non-native speakers have different perceptions of sentences which include basic grammatical contrasts although they have the same level of language use and proficiency. Non-native speakers generally use linguistics forms deviating from the native standard and native speakers cannot always correct all of the grammatical mistakes made by non-native students. In other words, some of the faulty items or features produced by non-native speakers may not be repaired by native speakers in some situations (Kurhila, 2001). Carrying out four experimental studies, Hopp (2010) dealt with the question whether adult L2 learners can learn a second language like a native speaker. English, Russian, and Dutch speakers who were exposed to German language for more than 10 years were the participants of this study. In all four experiments, the same participants took part. Using the same participants provided the researcher with the opportunity to compare the results of the experiments. In four experiments, it was aimed to test the knowledge and processing of inflection using different off-line and on-line tasks.Based on his study, Hopp (2010) draws three conclusions that adult

L2 learners can acquire second language like native speakers. Also, non-native-likeness results from L1 and task demands. The third and last conclusion is that reduced processing efficiency stemmed from L1 influence may result in non-native-like L2 inflection. Based on these results, it can be suggested that second and foreign language learners can attain L2 grammar and L2 processing like a native speaker. Yet, L1 transfer and limitations in L2 processing efficiency may cause non-target like-L2 inflection.

Lasagabaster and Sierra (2002) also examined students' preferences of native or non-native teachers in language teaching. They conducted a questionnaire to 76 undergraduates to explore their perceptions about NST and NNST at primary, secondary and university levels. It was aimed to find out their attitudes about teachers related to language skills, grammar, vocabulary, pronunciation, learning strategies, culture and civilization, attitudes, and assessment. According to the results of the study, in general, students tend to prefer NST at all levels in the areas of pronunciation, speaking, vocabulary, and culture and civilization. Árva and Medgyes (2000) claim that there are several studies which have been based on the principle 'learner centeredness' while very little attention has been paid to teaching process and teacher in terms of the concepts of native and non-native speaker. In their own study, they focus on not only investigating differences in teaching behavior between native and non-native teachers but also comparing their stated behavior with their actual behavior. Two groups were composed of 10 native and non-native teachers of English who were equally distributed. They were observed and interviewed and the results suggest that two groups of teachers differed from each other in terms of English-language competence and teaching qualifications and experiences that they have and the reasons for these differences were not certainly determined. Related to language proficiency, non-NESTs could speak English fluently, however, they could not compete with NESTs in terms of language competency and cultural background which contributes to students' motivation. One of the benefits of being nonnative stated by Kramsch (1997) who views being non-native speaker as a privilege is that learners contribute to the cultivation of their mind when they acquire a new language since learners bear linguistic diversity to learning process providing many possibilities of self-expression.

The place and importance of foreign accent in language teaching and learning can be discussed from many perspectives mentioned above and it can be concluded that accent plays an important part in people's social lives since it influences not only listeners but also speakers. Likewise, this issue needs examining due to the questions arising from the fact that accent reduces intelligibility, comprehensibility although they are all different constructs and

communication problems are usually attributed to other things than accent. It is necessary to enlighten accent concept for individuals living and interacting in different contexts.

Intelligibility and comprehensibility.

For several decades, researchers and practitioners have focused on pronunciation teaching and the concepts of intelligibility and comprehensibility rather than accentedness with the advent of Communicative approach. A variety of attempts have been made to have a better understanding of the concepts 'foreign accent' and 'intelligibility' and 'comprehensibility' (Derwing, 2010; Field, 2005; Holland, 2016; Levis, 2005; Levis, 2007; Munro & Derwing, 2011). Many researchers distinguish intelligibility, comprehensibility and accentedness and identify these terms individually as different dimensions of second language speech (Derwing, 2010; Munro & Derwing, 1995; Kim, 2008; Smith, 1992). Related to this issue, Munro and Derwing (2006) claim that intelligibility and comprehensibility are closely correlated while accentedness is different from these two terms while Murphy (2014, p.261) asserts that "the constructs of accent, intelligibility, and comprehensibility are technical terms that refer to different facets of L2 pronunciation".

Jenkins (2000) claims that there has not been a broad definition of intelligibility agreed by linguists and ELT professionals since this term can refer different things to different people. This situation leads to several definitions provided by different researchers. On the other hand, drawing a clear-cut distinction among intelligibility, comprehensibility and interpretability so as to have a better understanding of the first one, the general term "intelligibility" is categorized into three level systems of intelligibility, comprehensibility and interpretability by Smith (1992, p.76) who defines intelligibility as "the recognition of word and utterance. He also describes comprehensibility as "word / utterance meaning (locutionary force)" and interpretability as "meaning behind word / utterance (illocutionary force)". According to Smith (1992), it can be argued that these three categories form three degrees of understanding on a continuum in which intelligibility is the lowest and interpretability is the highest. Based on this categorization, Atechi (2004, p.43) comments that "one should hasten to say here that this distinction seems not clear. In the process of testing intelligibility, we seem to see no hard and fast rules about where one category ends and another one begins on Smith's categorization". This may refer that Smith's categorization does not reflect a clear-cut distinction among these three notions.

Accepting intelligibility as the most sensible goal of pronunciation instruction, Kenworthy (1987, p.13) defines intelligibility as "being understood by a listener at a given time in a given situation". This refers that a speaker will be intelligible when a listener

identifies all the words accurately said by that speaker in a particular context. Derwing (2010) who is one of the researchers concentrating mainly on certain aspects of pronunciation teaching especially intelligibility and comprehensibility states all these terms have different meanings and defines intelligibility as "the degree to which a listener understands a speaker; this can be measured in several different ways, including transcriptions, comprehension questions, and listener summaries of productions" while accentedness is defined as "a judgment of how much one's speech differs phonologically from the local variety" (p.29). Derwing (2010) claims that accent refers to difference, intelligibility, on the other hand, means actual understanding. Comprehensibility is also defined by Derwing (2010, p.29) as "a judgment of how easy or difficult an individual's pronunciation is to understand, and it can also be measured on a scale". According to O'neal (2015), intelligibility should be taken into consideration in terms of its contribution to successful communication. The researcher pointed out that one cannot conclude that speakers are intelligible in their speeches if interlocutors do not understand what they utter.

In addition to O'neal (2015), Atechi (2004) associates communication with intelligibility expressing that good communication occurs only when the speaker is perceived as intelligible by listener and continues to say that each form of communicative expressions includes some degree of intelligibility. Kenworthy (1987) suggests that intelligibility is indispensable for foreign speakers in order to facilitate successful communication. Communication is considered as one of the largest context of the discussion what features determine intelligibility. Since communication includes not only well organized sounds sent to the listener but also understanding the intensions by the words that those sounds constitute, intelligibility facilitate what the speaker intent and effective communication occurs (Kenworthy, 1987). Based on this notion, it can be asserted that communication and intelligibility are closely associated and they are in matters of pronunciation.

Munro and Derwing (1999, p.289) define intelligibility as "the extent to which a speaker's message is actually understood by a listener". In addition, Derwing and Munro (2009, p.478) define comprehensibility as "the listener's perception of how easy or difficult it is to understand a given speech sample". Providing a less or more similar definition, Derwing, Munro and Thomson (2007, p.360) refer that comprehensibility is "the ease or difficulty with which a listener understands L2 accented speech".

Defining intelligibility as the learners' ability to make themselves understood by a listener who is a native speaker of English" Ueno (1995, p.7) claims that each educator describes intelligibility from different perspectives requiring learners to be intelligible to both

a native speaker of English, and a non-native speaker as listeners. The third perspective provided by Ueno (1995) is that "intelligibility plays an interactional role between speakers and listeners even if they are native or nonnative users of English.Related to intelligibility and accent issues, Levis (2005) identifies two contradictory principles: *"the nativeness principle"* and "*the intelligibility principle*". In pronunciation teaching profession, the effect of the nativeness principle decreased with the notion that nativeness can be acquired before adulthood although it was prominent before 1960s. Trying to achieve native-like accuracy began to be considered as a useless effort for teachers and learners and critical period was emphasized for acquiring pronunciation. The nativeness principle aims to achieve native-like pronunciation which seems to be likely and desirable. In this principle, L2 speaker must struggle to do best for replicating a native-like accent. Although many researchers argue against the nativeness principle, the effects of it on pronunciation teaching practices can be noticed easily and a number of teachers still support the nativist principle (Levis, 2007)

The intelligibility principle, however, argues that L2 speaker must be understandable Context is important in intelligibility principle viewing not only listeners but also speakers as necessary elements for communication. According to Levis's conceptual framework (2005), the intelligibility principle denotes that the features which have positive effects on understanding should be focused on in pronunciation while those which are slightly of little use are needed to be deemphasized. Based on this notion, one can infer that different features of pronunciation have different impacts on understanding.

Intelligibility and comprehensibility have been emphasized more than native or near-native pronunciation and have been regarded as the most prominent keys in pronunciation teaching by many researchers (Munro and Derwing, 1999). Underhill (1994, p.171) puts a strong emphasis on the goal of comfortable intelligibility to be attained by language learners, which he describes comfortably intelligible pronunciation with the following statements:

> they can be understood comfortably, without undue effort by the listener, and that they can understand comfortably the speech of native and non-native speakers without undue effort on their own part. This target of comfortable intelligibility gives us a realistic and achievable aim since it implies that learners' productive pronunciation need not be as sophisticated as their 'receptive pronunciation'".

Field (2005) discusses that it was difficult to put this theory into practice at the very beginning. However, after 1970s, language teachers began to accept that intelligibility should be main concern of instruction since they recognized that aiming to teach native-like pronunciation was a time consuming process and may not reflect learners' wishes. Given this view as the basis of pronunciation teaching, Munro and Derwing (1999) suggest whether an

individual's speech is accented or not is of minor concern on the occasion that intelligibility and comprehensibility are the key purposes in pronunciation teaching. Likewise, Derwing and Munro (2009) stress the importance of intelligibility and comprehensibility rather than nativeness. They believe that it is doubtless most of the learners deal with decreasing the foreign quality of their accent although intelligibility and comprehensibility are more dominant in communicative competence than accentedness. These studies support to the notion that intelligibility and comprehensibility have superiorty over accentedness.

In a similar vein, Sifakis (2014) suggests that intelligibility and comprehensibility should be focused on rather than accentedness in pronunciation instruction for the reason that successful communication may be broken down due to the problems stemmed from intelligibility and comprehensibility whereas accentedness has a much less importancefor a successful communication. Adding knowledge to the literature of the nativist and intelligibility principles, Sifakis (2014) refers two orientations: English as a foreign language (EFL) and English as a Lingua Franca (ELF). The first one focuses on the acquisition of native-like accuracy and the second on intelligibility. EFL contexts can be described as environments in which English is taught as a foreign language to speakers for whom it has no immediate function within their society. Therefore, learners are regarded as users of English in their own sociocultural setting and non-native users of English. Focusing on the mutual intelligibility, ELF orientation, on the other hand, shifted attention from acquiring a native-like accent to improve intelligibility among non-native speakers of English. For successful communication, mutual intelligibility has gained importance rather than accurate native-like pronunciation and based on this fact, Sifakis (2014, p.137) suggests that:

> Teachers must understand that native speaker models may not always be appropriate for all non-native learners. Instead, they should appreciate that pronunciation serves just one of a series of means that can ensure intelligibility and should always be taught with the comprehensibility capabilities of other interlocutors in mind.

Related to this issue, Saito and Van Poeteren (2011) suggest that acquiring intelligible pronunciation should be the main goal in the context of second language (L2) pronunciation teaching rather than native-like pronunciation. In contrast to the researchers supporting intelligibility and comprehensibility based instruction programs, Munro and Derwing (1999, p.304) claim that the goals of instructors and learners determine which aspect of pronunciation is important explaining that:

> If comprehensibility and intelligibility are accepted as the most important goals of instruction in pronunciation, then the degree to which a particular speaker's speech is accented should be of minor concern, and instruction should not

> focus on global accent reduction, but only on those aspects of the learner's speech that appear to interfere with listeners' understanding.

Munro and Derwing (2011) support the idea that theoretical interests of intelligibility and accentedness do not comply with pedagogical ones. In theory, native or native-like pronunciation is essential for successful learning while intelligibility is seen as the most significant factor for good communication in L2. Also, error prediction models are pedagogically insignificant since an intelligibility based instruction program does not give importance to the advanced level of knowledge related to learner errors. Therefore, literature which is based on theoretical research does not benefit to determine applicable andefficient classroom techniques which will improve oral communication.

In contrast to researchers claiming that intelligibility is more important in language education than native-like pronunciation, some researchers advocate that pronunciation instruction based on native-like pronunciation methods are not fully inapplicable. Related to this issue, Lepore (2014) comments that phonological instruction including methods that support native-like pronunciation seems relatively practical even if intelligibility is taken into consideration rather than the notion of nativeness.

Intelligibility is also the main concern of much research arising out of the World Englishes (WE) and English as a Lingua Franca (ELF) movements (Sewell, 2010). Berns's study (2008) is one of the examples that takes intelligibility into consideration within WE and ELF movement. Previously, intelligibility was a specific concept particularly attributed to English which was seen as intelligible and correct while English as a second and foreign language was unintelligible and incorrect (Kim,2008). Afterwards, researchers criticized this situation and Smith (1992, p.76) discussed that "native speakers are not the sole judges of what is intelligible nor are they always more intelligible than nonnative speakers" and does not restrict the notion of intelligibility to only speaker or listener but it is an interactional occurrence between speaker and listener. Jenkins (2000) approaches the subject from the communication standpoint and people from distinct backgrounds have been examined to have a better understanding of what parts of phonology of English are essential for intelligibility and she suggests a Lingua Franca Core consisting of these pronunciation aspects that pronunciation programs should be based on. Several regional varieties are existing as English lingua franca.

Deterding and Kirkpatrick (2006) investigate pronunciation features of an English lingua franca emerging in ten countries that belong to the Association of South East Asian Nations(ASEAN) and focus on the intelligibility of the speech characterizing the emergent ASEAN English lingua franca in order to assess the effects of each feature of pronunciation

on maintaining intelligibility. According to the results obtained from the conversation between speakers from different ASEAN countries, they found out which features of pronunciation may break down understanding. They conclude that five examples such as the use of [a:] in pearl, omiting the /r/ in three and pronouncing sauce with an initial [ʃ]; seem to contribute to misunderstanding. However, it is observed that any of shared pronunciation features of the ASEAN English lingua franca identified in the study did not contribute to a breakdown in communication. In contrast, avoidance of reduced vowels in unstressed syllables and the clear bisyllabic enunciation of triphthongs, improve intelligibility. It can be inferred from this study that new varieties of English may cause unintelligible speakers in international contexts. According to Kirkpatrick, Deterding and Wong (2008), on the other hand, the study of international intelligibility of non-native varieties can be significant in deciding about the role of non-native varieties in language classrooms. They support this notion with their study carried out to examine international intelligibility of new varieties of English. It is suggested in their study that the English of the speakers from different varieties is highly intelligible in international contexts.

Explaining intelligibility from both English as a Lingua Franca (ELF) and world Englishes (WE) research standpoint, Sewell (2010) approaches the ELF intelligibility within three linguistic factors such as functional load and frequency of occurrence; psycholinguistic factors such as word recognition and retrieval and evidence provided by examples of language variation and change in L1 English. Based on the literature reviewed about ELF, Sewell (2010) suggests that internationally intelligible speakers possess several common features even if they are native or non-native speakers of English while it is suggested about WE that focusing on a features-based view of phonological variation and its relationship with intelligibility may be more helpful rather than a variety-based view since intelligibility is related to phonological features of speakers not the varieties.

One of the main difficulties for pronunciation practitioners is to determine what features of speech make a significant contribution to intelligibility and comprehensibility and what factors affect these two terms. The review of related literature shows that there is much research conducted to examine what pronunciation features are ranked as important to achieve intelligible pronunciation (Field,2005; Munro and Derwing,1999; O'neal, 2015; Saito& van Poeteren,2012). However, the knowledge of the factors making a learner's speech intelligible is very little despite its great importance in pronunciation instruction. (Field,2005).

In this context, the effects of prosodic features on intelligibility were investigated by Munro and Derwing (1999) who conducted an experimental study in order to investigate how

the presence of nonnative accent affects intelligibility and how the prosodic features figure in the loss of intelligibility. In this experimental study, the participants who were elicited from 10 native Mandarin speakers and learned English after puberty were given a task to complete. In this task, they were presented a page of cartoon illustrating an amusing story and asked to describe the events in the picture. Their descriptions were recorded with high fidelity audio equipment. All the samples obtained from each speaker participants were rated for the degree of foreign accent and comprehensibility by listeners who were 18 native speakers of English. The findings of the study showed that prosodic features are potentially more effective on the loss of intelligibility than phonetic errors. Especially intonation plays an important part in listeners' judgements of comprehension and accent. The results of the study by Hahn (2004) resemble those of the study carried out by Munro and Derwing (1999). Although they approached the issue by investigating different features of prosody, Hahn (2004) as stated in Munro and Derwing (1999), supports the importance of suprasegmentals to improve intelligibility in terms of primary stress. According to the researcher, prosodic errors can have negative impacts on listener comprehension. Aiming to find out nonnative English speakers' reactions to nonnative primary stress in English, she examined to what extent non-native speakers' misplaced or missing primary stress affect listeners' intelligibility in her study. 90 subjects who were freshman students at a large Midwestern public university took part in the study and three experimental groups were constituted using these subjects. The subjects were asked to respond three tasks and the findings show that when primary stress is in its correct place, listeners can understand and respond more positively. Therefore, it can be concluded that primary stress improves intelligibility of nonnative discourse. This appears to be the probable reason why prosodic features are significant in pronunciation teaching field.

Another study conducted by Field (2005) revealed similar results. According to Field (2005), research evidence indicates that suprasegmental features are more significant than segmental. Therefore, he carried out a study focusing on suprasegmentals with two groups of participants including native and non-native speakers. However, Field (2005) adopted a different approach in order to investigate intelligibility from the most widely used approach in which native listeners are asked to evaluate samples of nonnative speech for segmental or prosodic features, accentedness and other features. Focusing on a single phonological feature and shifting the focus to the listener, the researcher aimed to examine whether lexical stress contributes to intelligibility. Both native listeners and nonnative listeners were played the same materials including English words and they were asked to write down what they hear and try to guess the spelling of the words. After the analysis of the scripts, the results show that misplaced stress and misinterpreting cause a significant decline in intelligibility. In

addition, intelligibility reduces more when lexical stress is shifted to the right than to the left. According to the findings of the study, Field (2005) suggests that pronunciation teachers and pronunciation teaching programs should pay attention to lexical stress but they do not need to give first priority. This means that lexical stress deserves a medium level of importance in increasing intelligibility. This study conducted by Field (2005) shows that suprasegmental features plays a more significant part than segmentals for increasing intelligibility of speech.

In contrast to the researchers mentioned above (Field, 2005; Hahn, 2004; Munro and Derwing, 1999), some other researchers assert segmental errors are more effective in the loss of intelligibility. O'neal (2015), for example, claims that segmental features are significant to the improvement of mutual intelligibility and view consonants as a crucial aspect of pronunciation affecting intelligibility. The researcher conducted a qualitative study of the relationship between consonant modification and pronunciation intelligibility in English.This relationship was investigated using the corpus which was obtained from recorded interactions between undergraduate students, Japanese graduate students, foreign exchange students and foreign graduate students at a Japanese university. The findings revealed that the participants modified some consonants in unintelligible words to the consonants restoring intelligibility during the interactions.The results of the study lead to the interpretation that the pronunciation of consonants has an important role in the maintenance of mutual intelligibility in English and intelligibility is an interactional process.Considering intelligibility as an interactional process may lead to the notion that concentrating on the elements of the interactions assistinginterlocutors to be successful can be more important than on the elements thatcause a loss of intelligibility (O'neal, 2015). Likewise, Holland (2016) correlates segmental errors with the loss of intelligibility, yet the researcher include not only speaker but also listener in the issue of intelligibility. Speakers are crucial in the way that they utter phonetic features which affect the complexity of intelligibility, listeners' abilities to parse the phonemes into words which are known and have meaning, on the other hand, have a significant role in increasing intelligibility. This notion highlights that listeners are of vital importance in an effective communication as well as speakers.

The effects of segmental features on intelligibility of non-native speech was also investigated by Bent, Bradlow and Smith (2007) who claim that the deviations between the speech produced by non-native speakers and native speakers' norms lead to foreign-accented and thereby unintelligible speech. According to these researchers, the wider knowledge of the detailed phonetic nature of accentedness and its consequences on overall intelligibility perceived by native listeners is necessary for improving foreign-accented speech and

increasing intelligibility. Therefore, they investigated intelligibility and production accuracy of segmental features occurring in different positions in the word for the reason that they aimed to find out to what extent foreign-accented speech displays systematic effects at the word level. Another purpose was to explore whether segment production accuracy in different word positions determines native listeners' perceived intelligibility. For these purposes, 15 non-native speakers of English were selected as the participants of the study. These participants' native language was Mandarin Chinese and they were graduate students at Northwestern University with an average age of 23.8. The participants provided the study with recordings including sentences in English. Besides the recordings, the database of the study included an intelligibility score for each speaker which was based on the results obtained from sentence-in-noise-recognition tests with native English speakers. The recordings were transcribed twice by well-trained phoneticians and different people. All of the errors found in the analysis of the data were divided into consonant and vowel errors. The findings revealed that 14 of 15 participants produced consonants more accurately than vowels. Also, there were differences among the word positions for consonants. For example, segments in word-initial position were produced more accurately than segments in word-final position. The correlation between intelligibility scores and segment production scores was significantly positive as well. Based on these results, it is suggested that segment production accuracy has positive impacts on intelligibility. This conclusion can be a reason for incorporating the instruction of segmental features into language teaching programs.

In addition to intelligibility, comprehensibility and factors affecting it have also received much attention. Language learners' ability to understand the speech of other interlocutors is correlated to a variety of factors such as accentedness, fluency and intelligibility. Likewise, another factor that is crucial for effective communication is comprehensibility. Therefore, the concept of comprehensibility has been central to several studies approaching the issue from different perspectives (Gass & Varonis, 1984; Kang, 2010; Kim, 2008; Munro& Derwing, 1995, Murphy, 2014; Pickering, 2006). Investigating the effects of various types of familiarity on the comprehensibility of nonnative speech, Gass and Varonis (1984, p.67) categorize familiarity variables as "*(*1) familiarity with topic, (2) familiarity with nonnative speakers of a different language background, (3) familiarity with nonnative speakers of the same language background, and (4) familiarity with the same speaker". They designed a study in order to examine the comprehensibility of non-native speech as a function of these familiarity variables. Undergoing an initial selection process, 4 of 15 non-native speakers were included in this study. The speakers were expected to be comprehensible rather than being understood the best. Participating in the major part of the

study, these four speakers read a story and two sets of sentences and their readings were recorded. The recordings, then were played to 142 native speaking English students and they were asked to listen to the sentences and the story and write down what they heard and comments about the task. The findings of the study focusing on native speakers' comprehension of non-native speech and the variables facilitating their comprehension showed thatall types of familiarity affect comprehensibility in different degrees. While familiarity with the topic of discourse greatly facilitates the comprehensibility of entire message, other three types of familiarity including familiarity with nonnative speech, a particular nonnative accent and a nonnative speakeraffect comprehensibility to a lesser extent. Based on this result, it can be stated that factors affecting comprehensibility are significant in terms of negotiation of meaning and efficient interaction. This is because comprehensible speech produced by non-native speakers might contribute to the degree of native speakers' speech modification which, in turn, may promote language learning process (Varonis & Gass, 1984)

In addition to Gass and Varonis (1984), Pickering (2006) correlates comprehensibility to the context of use that includes factors relevant to speaker, listener, linguistic and social context and the environment. Examining variables that affect intelligibility and comprehensibility, Pickering (2006) states that familiarity with a speech event or topic is considered as one of the variables affecting intelligibility or perceived comprehensibility. From the point of listener factors, familiarity with a specific interlocutor, listener specific factors, and situation specific factors can be included in these variables. Likewise, Jenkins (2000) addresses the issue of listener factor emphasizing that intelligibility research has shifted its focus not only from speaker to listener but also listener based factors such as listener background knowledge and processing skills.

Comprehensibility research suggests that the correct use of prosodic features such as tone, rate of speech, utterance length and length and placement of pauses contributes to an improved comprehensibility of non-native speech. For example, Munro and Derwing (1995) claim that comprehensibility in L2 speech of native speakers is affected by prosodic features more than segmental level of pronunciation

There are different views related to relationship among accentedness, intelligibility and comprehensibility. Some researchers such as Derwing & Munro 1997 (cited in Munro and Derwing, 2006) and Munro & Derwing (1999) claim that a speech may be strongly accented but also highly intelligible and comprehensible while others suggest that accentedness causes a decrement in intelligibility and comprehensibility of L2 speech. The

first notion suggests instructors should focus on aspects of pronunciation that help learners be more intelligible and comprehensible rather than those that may cause accentedness to make learners become better communicators.

In an effort to advance research in this area, Munro and Derwing (1999) conducted a study to understand this interrelationship. They chose 10 non-native speakers of English who learned English after puberty and were proficient users of English as the speakers of the experiment and 18 native speakers of English as the listeners and used listening comprehension tests and foreign accent rating scale. In accordance with the results obtained from experiment, the role of comprehensibility in accent judgements depends on the listener and accent scores cannot be used to assess comprehensibility. Furthermore, perceived comprehensibility scores are better indicators of intelligibility than accent scores. On the basis of these results, Munro and Derwing (1999) suggest that a strong foreign accent does not lead to a lower level of intelligibility and comprehensibility in L2 speech. This study contributes to the understanding that the presence of foreign accent in L2 speakers'speeches does not identify them as unintelligible speakers since even heavily accented speech might be intelligible.

Comprehensibility is an aspect of pronunciation that ESL students need to be assisted but their teachers do not devote adequate time to pronunciation instruction (Munro &Derwing, 2006). Examining the relationship between accentedness and comprehensibility, Munro and Derwing (2006) contribute to the literature related to this issue and other aspects of pronunciation instruction. To find out in what ways comprehensibility and accentedness are related, they examined the usefulness of theoretical notion of functional load through determination of which consonant distinctions have the greatest effects upon listeners' perceptions of accentedness and comprehensibility. A large database of recordings obtained from 80 proficient Cantonese speakers of English was used. 13 native speakers of Canadian English listened the stimuli selected from the database and entered their judgements using a computer program. They rated the sentences produced by people with foreign and native accents for the degree of accentedness and comprehensibility using two 9-point scales. The findings they obtained from this study show that the high functional load errors affected both accentedness and comprehensibility whereas the low ones did not influence accentedness but had a minimal effect in comprehensibility. This study not only provides an insight to the distinction between these two terms but also shows that the functional load principle can be used in pronunciation courses effectively in order to assist learners to become comprehensible.

Assessing intelligibility and comprehensibility is a controversial issue and discussed in many studies (Atechi, 2004; Kenworthy, 1987; Munro & Derwing, 1999, O'neal, 2015; Pickering, 2012; Rajadurai, 2007). Pickering (2012) states that assessing intelligibility has long been regarded as a core area of L2 speech research. While Munro and Derwing (1999) claim that there is not a universally accepted way to assess intelligibility, O'neal (2015) suggests that intelligibility can be assessed through a number of ways. This notion implies that a variety of definitions of intelligibility accompanied a considerable number of methods to measure intelligibility. Asking listeners to document the products of their understanding through transcription/dictation, comprehension question, and/or written summary tasks can be included in types of measurement of intelligibility. (Murphy, 2014). Rating scales can be used as a means of measuring intelligibility which is used by many speech language therapy and clinical batteries. (Miller, 2013). He also suggests word recognition tests as an alternative way to assess intelligibility. Assessing intelligibility of particular speakers by asking someone to listen to them and state how difficult or easy to understand these speakers is the easiest way. These types of assessments are considered accurate and dependable and they have been used in a number of studies (Kenworthy, 1987). Related to the difference between the measurement of intelligibility and comprehensibility, O'Brien (2014, p.716) explains this difference as following:

> Comprehensibility and intelligibility are both measures of understanding of speech, but they differ in their operationalization: Comprehensibility studies rely on raters' judgments of perceived understanding on a scale, but intelligibility studies require listeners to provide evidence of understanding (e.g., through transcriptions or by answering questions about the content of a speech sample).

Intelligibility and comprehensibility are dynamic processes which are affected by both speakers' factors and listeners' factors such as familiarity and attitudinal variables. Previous research has mainly focused on these issues. However, much research into issues of intelligibility and comprehensibility can be done to shed further light on what speakers and listeners can do to improve and maintain intelligibility and comprehensibility in their real life contexts. Although intelligibility has been paid much attention recently and is regarded as a distinct construct, a better understanding of what it is and how it can be enhanced is essential to assist teachers and EFL pronunciation programs to contribute to learners' perceptions related to these aspects of pronunciation.

Pronunciation Teaching

Historical background of pronunciation teaching.

Pronunciation teaching has gone through different methodological stages and its role has changed owing to the various emphases of functional approaches and pronunciation practitioners beginning with the Classical Method to Communicative Approach. These fluctuations are emphasized by Ueno (1995) stating that pronunciation teaching is the only area which has witnessed a considerable number of ups and downs in language teaching. In this regard, Morley (1991) divides the history of pronunciation teaching into three periods. The first period dates back to 1940s until 1960s while second period begins in the late 1960s and continues through the 1980s. As for last period, it begins from the mid-1980s to 1990s.

Pronunciation received very little or no attention in Grammar-translation Method first known in the United States as the Prussian Method since this method emphasize vocabulary and grammar teaching and such skills as listening and speaking are not taught explicitly while reading and writing are the primary focus. With the advent of the Reform Movement in 1880s, pronunciation gained importance because the Reform Movement led to the foundation of the International Phonetic Association which was developed by Henry Sweet, Wilhelm Viëtor and Paul Passy (Carey, 2002). These phoneticians studied much to contribute to the pronunciation instruction with the development of a system that describes and analyze sound systems of languages.

With the influence of the Reform Movement which was an analytic linguistic approach, Audiolingual Method which viewed pronunciation as an important aspect of language teaching was developed in the 1940s and 1950s. It was known as Audiolingualism in the United States and Oral Approach in Britain. This method was built on explicit instruction of pronunciation. Therefore, pronunciation was taught explicitly in laboratories from the beginning. In this method, teacher provides students with a model for imitation and uses a visual transcription system or articulation chart and students memorize and imitate language patterns and dialogues. In pronunciation class, “phonemes and their meaningful contrasts, environmental allophonic variations, and combinatory phonotactic rules, along with structurally based attention to stress, rhythm, and intonation” were given primary attention. (Morley, 1991, p.484).

In the late 1960s and 1970s, several questions about the role and importance of pronunciation occurred and instruction programs began to spend less time to explicit pronunciation teaching with the emergence of the cognitive movement that had been affected by transformational-generative grammar and cognitive psychology. In this period,

Transformational-generative grammar was developed and the significance of pronunciation in language acquisition profession was declined due to the view that language was rule-governed behavior and cannot learnt habitually. While Cognitive Approach did not attach importance to pronunciation as native like pronunciation was regarded as an unrealistic objective and a difficult skill to acquire, in Silent Way, pronunciation teaching was given place from the beginning since the sounds were considered basic to any language (Larsen-freeman, 2003). M. Hişmanoğlu and S. Hişmanoğlu (2010) suggest that pronunciation teaching in Silent Way encouraged the learners to focus on the sound system without a need to learn a phonetic alphabet or explicit linguistic information. The instruction was based on the accuracy of sounds and structure of the target language since the very beginning. Suprasegmental features are emphasized as well as segmental and pronunciation is taught through gestures instead of explicit teaching. Visual teaching aids such as the sound-colour chart, fidel wall chart and Cuisenaire rods are used to demonstrate abstract principals of pronunciation. (Carey, 2002). Community Language Learning, on the other hand, neither neglected pronunciation completely nor gave the first priority. The pronunciation syllabus was designed according to the students' preferences and needs. Particular pronunciation patterns were taught from the beginning in this method.

The last period, as Morley (1991) has noted, witnessed a growing interest in pronunciation component beginning with new developments in English Language for Specific Purposes areas. A significant increase in journal articles and teacher resource books on pronunciation teaching was observed in this period. Pronunciation instruction has regained its importance in ESL/EFL teaching curriculum with a new perspective suggesting that pronunciation should be intelligible as an essential component of communicative competence. (Morley, 1991). With the emergence of this perspective, the notion of native like pronunciation which formed the basis of the previous principles has shifted and communicative based instruction has become crucial. Meaningful communication has been emphasized and pronunciation has begun to be treated as an important feature that contributes effective communication.

In the early 1980s, the significance of communication-oriented language education was discussed and the communicative approach emerged in the fields of education in the late 1980s. Communicative Language Teaching (CLT) opened the pathway for the discussion that students could use language accurately in the classroom but could not produce sentences appropriately in real life contexts. Even if students know all the linguistic structures correctly, it is more important to be able to communicate with other people within a social context

(Larsen-freeman, 2003). Tikkakoski (2015) remarks that communicative activities should be used in authentic environments in order to make learning language easier in CLT. Related to the goal of Communicative Language Teaching, enabling students to communicate effectively in the target language, it is aimed at leading students to be proficient in linguistic forms, meanings and functions. Authentic materials and communicative activities such games, role plays and problem solving tasks as are used to achieve communicative competence.

As for the role of pronunciation teaching in CLT, M. Hişmanoğlu and S. Hişmanoğlu (2010) explain that pronunciation instruction was essential for intelligibility in oral communication and addresses techniques which are utilized to teach pronunciation such as listening and imitating, phonetic training and minimal pair drills.With a similar perspective, Gilakjani (2017, p.1251) explains the status of pronunciation in CLT with the following sentences:

> The Communicative Approach holds that since the main aim of language is communication, the use of language to communicate should be of the greatest importance in all classroom language instruction. This attention on language as communication is of great urgency to pronunciation instruction, since evidence reveals that there is a threshold level of pronunciation for nonnative speakers.

With the advent of CLT, the emphasis was shifted from form-focused teaching and exposure to native speaker input and this view was regarded as the best way to acquire pronunciation. Comparing traditional methods with more modern ones, Kanellou (2011) claims that CLT criticized traditional pronunciation teaching methods such as audiolingualism which regarded pronunciation only as a linguistic form while it is supported in CLT that effective pronunciation is acquired through the use of meaningful tasks or activities including real communication. It seems clear that CLT has maintained its dominance as a methodological approach in language teaching and considers intelligible communication the main goal of language teaching. Therefore, pronunciation practices should be designed to enable learners to achieve communicative competency and language instructors should emphasize communicative features of pronunciation.

Taking the above-mentioned notions into consideration, it can be concluded that ESL and EFL teaching went through different methodological stages and the role of pronunciation changed owing to the various emphases of functional approaches by switching from Grammar-Translation and Audio-Lingual to Communicative Approach and this situation made practitioners be aware of different aspects of phonology and phonetics. Whether language teaching methods, theories and approaches include pronunciation teaching suggestions throughout the history of language teaching is significant in terms of investigating the development of pronunciation education.

Pedagogical issues in pronunciation teaching.

In many EFL/ESL settings, compared to the language skills such as grammar, reading or vocabulary that are taught individually, language teachers may neglect pronunciation and consider that it should be taught in higher levels. Much of research has indicated that pronunciation is regarded as the *"Cinderella*" of language teaching (Kelly, 1969, p. 87) since linguists and philologists have paid attention to grammar and vocabulary more than pronunciation which was closely examined shortly before the beginning of the twentieth century. Despite the fact that pronunciation instruction is paid the least attention in language teaching classrooms, its crucial role in intelligible communication has led researchers to investigate pronunciation instruction from different perspectives such as goals, priorities, challenges and needs in the field of pronunciation teaching. Bringing the extent of the studies about pronunciation instruction into the forefront, Morley (1991) addresses a variety of issues that have been investigated within the field of pronunciation instruction. Among recently-emphasized concerns are whether pronunciation should be taught, what should be taught and how, effects of pronunciation instruction on learners' pronunciation patterns and views on whether and how phonological research contributes to classroom practices.

The efficacy of pronunciation instruction, either explicit or implicit, is one of the most salient issues that have been examined within the field of pronunciation teaching. Although there were very few studies related to the effectiveness of pronunciation instruction until the 1960s, with the appearance of new language teaching approaches and a wide range of researchers emphasizing the importance of pronunciation instruction, the tendency has changed and this situation has expanded awareness of the significance of pronunciation instruction. At the turn of 21st century, much more emphasis was placed on the effectiveness of pronunciation instruction. Along with this change, pronunciation instruction research has received the priority which it deserves. A number of studies have investigated the impact of pronunciation instruction on learners' phonological development (Arrieta, 2017; Atli & Bergil, 2012; Camus-Oyarzun, 2016; Chiba, 2012; Couper, 2003; Couper, 2006; Derwing & Munro,2005;Elliott, 1995;Gonzales-Bueno & Quintana-Lara, 2011; Huthaily, 2008;Khaghaninejad & Maleki, 2015; Kissling, 2012; Kissling, 2015;Lee et al., 2014;Ospina Cortes, 2014; Pardo,2004;Roccamo, 2015; Ryder, Tunmer & Greaney, 2007; Saito, 2012; Saito & Lyster, 2012;Silvestri, 1997; Tark, 2016;Tlazalo Tejeda & Basurta Santos, 2014; Tergujeff, 2013; Thomson& Derwing, 2014; Trofimovich & Gatbonton, 2006; Trofimovich, Lightbown, Halter & Song, 2009; Zamora, 2015). These studies provide evidence supporting that there is a positive correlation between pronunciation proficiency and pronunciation

instruction. Some studies, on the other hand, contribute to the relevant literature supporting that pronunciation instruction is relatively unhelpful in pronunciation development of language learners (Ducate & Lomicka, 2009; Harris, 2002; Kennedy, 2008; Kissling, 2013). The explanations for this may be learner differences, instructional focus, aims, type and duration of instruction given and assessment procedures (Thomson & Derwing, 2014).

The theoretical debate on the effectiveness of explicit pronunciation teaching creates the need to review the literature about this issue and it can be observed there are many studies related to explicit pronunciation teaching. To give an example, Couper (2003) examined the efficacy of explicit pronunciation teaching by carrying out an experimental study through pre- and post- course tests of pronunciation and a survey given to 15 post intermediate students from different language backgrounds in order to elicit their reactions to this syllabus and beliefs regarding pronunciation teaching and learning.The syllabus contained raising learners' awareness of the difficulties they experienced during pronunciation education as well as the basic features of spoken English. Also, it was aimed to teach segmental and suprasegmental levels of pronunciation and to encourage students to practice and monitor their own pronunciation. The participants received pronunciation instruction in which three or four sessions per week were devoted to pronunciation instruction. There was no control group in this course. A diagnostic test was given to participants at the beginning of the course and a similar test was implemented after the course.

The findings of the pre- and post-test revealed a clear improvement in learners' pronunciation accuracy on the tasks. Similarly, the results of the survey showed that that learners have positive attitudes toward explicit pronunciation teaching. Based on the findings of this study, it is possible to say that explicit instruction is useful for the reasons that it helps to diagnose students' pronunciation difficulties and raises students' awareness of pronunciation as well as enabling them to practice pronunciation patterns and observe their own learning process. The findings of this study also can inform skeptical teachers about the value of pronunciation teaching in L2 classrooms. The improvement of learners'pronunciation might be encouraging for teachers about teaching phonological aspects of language.

The same author conducted a study to investigate short and long term effects of pronunciation teaching. Couper (2006) attempted to address the shortcomings of his previous study mentioned above. In his previous study, empirical evidence was insufficient to make claims about what had worked and why even though systematic explicit pronunciation instruction was found to be successful. Therefore, Couper (2006) aimed to close this gap by conducting a classroom-based study focusing on epenthesis and absence of final consonants.

There were two groups including 21 learners of English in New Zealand, whose L1s were Chinese (14), Korean (1) and other non-Asian countries. While these participants composed the experimental group, the control group consisted of 50 learners with similar backgrounds. The explicit instruction involving short input and practice sessions was given to the participants in the experimental group. The major findings of pre- and post-tests revealed that the average error rate of the participants in the treatment group dropped dramatically while the participants in the baseline group achieved no gains in pronunciation. The results of the study show that explicit instruction can enhance the development of learners' phonological interlanguage. Based on the findings of his study, Couper (2006) suggests some components of an effective pronunciation teaching such as making learners aware of the difference between what they say and what native speakers say, helping learners to practice this difference, finding the right metalanguage, making learners to find out useful patterns and rules and providing opportunities for further practice by giving feedback. Providing support to the notion of Couper (2006), Lee et al. (2014) claim that instruction providing feedback, longer interventions and more controlled outcome measures may lead to effective results rather than treatment that do not emphasize one or all of these features.

Related to pronunciation teaching in beginner level FL classrooms, Roccamo (2015) presented a similar study to the relevant literature explaining the reasons why pronunciation should be taught to beginners. Her first reasoning is that a basic level of pronunciation is required for effective communication and for preventing comprehension problems, misunderstandings and communication breakdowns. Also, beginner learners may avoid phonological fossilization and may acquire other aspects of language. Therefore, Roccamo (2015) examined the efficacy of pronunciation training for beginner learners focusing on the features "lexical stress patterns, the allaphones of /r/ and voiceless fricatives to improve learners' comprehensibility in target language. The results indicate that experimental group which received explicit pronunciation training showed a significant improvement of comprehensibility. Also, they not only improved more than the control group in terms of more individual conditions and a variety of tasks but also displayed higher comprehensibility ratings in the conditions of word-reading and paragraph-reading tasks while control group only demonstrated significant improvement in word-reading task.

Providing similar results on comprehensibility, Chiba (2012) conducted an experimental study in order to examine the efficacy of pronunciation teaching through focus on forms and focus on form instruction. In such instruction, learners practiced phonological features in controlled activities focusing on the accuracy as well as practicing them in

meaningful communication contexts by concentrating on the pronunciation. The participants of the study composed of 20 first- year undergraduate students at a university in Japan and they were divided into two groups. In the experimental group, learners received explicit pronunciation instruction including segmental and suprasegmental features of pronunciation while control group did not. A diagnostic passage was performed by the participants in order to measure the improvement their pronunciation. The recordings were rated by American students on comprehensibility and accentedness. The results displayed that the perceived comprehensibility of the participants receiving explicit instruction improved while neither experimental nor control group showed any significant improvement in the accentedness ratings. This might be due to the fact that native speakers judged participants' accentedness more harshly than their comprehensibility.Saito (2012) also emphasized the value of pronunciation instruction on pronunciation skills of language learners.Conducting a research synthesis of 15 quasi-experimental studies investigating impacts of instruction on L2 pronunciation development, Saito (2012) provided results referring to the positive effects of instruction on both improving segmental and suprasegmental aspects of pronunciation and enhancing perceived comprehensibility. Based on the findings of the studies mentioned above, it can be suggested that explicit training helps learners receive a high level of pronunciation and improve their comprehensibility and thereby, pronunciation instruction should be emphasized and teachers should include it in language classrooms.

In a similar vein, though based on different features of pronunciation, Camus-Oyarzun (2016) carried out a study on adult L2 learners of Spanish in a classroom in order to investigate the effects of explicit instruction on comprehensibility and accentedness. However, this study provided a counter-argument for the same issue. The researchers evaluated the efficacy of treatment through two different outcome measures called as acoustic analysis and human rater analysis. Human rater analyses were carried out for accentedness and comprehensibility while other measure was used to evaluate to compare changes in voice onset time in voiceless plosives /p/,/t/,/k/. The data revealed two different results. According to the first result, learners receiving pronunciation treatment improved their pronunciation of all voiceless stops as compared to the control group which was not given such instruction. As for the second result, pronunciation instruction gained a moderate advantage to accentedness in a controlled level while it did not provide an advantage to perceived comprehensibility. These results draw the conclusion that pronunciation instruction is beneficial for improving target language pronunciation and the perceived foreign accent at the controlled level while it does not have a positive effect on comprehensibility.

Trofimovichet al. (2009) conducted a study comparing grade 3 and grade 4 English learners in an experimental, comprehension-based program with those in a regular language learning program with the purpose of whether sustained, long-term comprehension practice in listening and reading help learners develop L2 pronunciation. In the regular program which was a modified aural-oral program, students participated in question and answer activities, dialogues, songs and a minimal amount of reading and writing practice whereas the experimental program provided students with a specially equipped classroom with a cassette player and a headset for all students. Classrooms in experimental program had a collection of books and audio materials. The duration of the programs was one year involving 90 hours of exposure to listening and reading input.

At the end of instruction period, students in the experimental group performed six simple English sentences ranging between four and nine syllables in length, and featuring semantic content appropriate for 8- to 9-year-old beginning learners of English and their performances were evaluated by comparing to the performance of students in the regular ESL program. Also students' oral expression was assessed via an elicited imitation task. Two sets of analyses involving sentence-based measurements of speech accuracy and fluency and native speakers' ratings sentences for accentedness, comprehensibility, and fluency. The findings of the sentence-based measurements showed that there was no statistically significant difference between the groups regarding their repetition accuracy. On the contrary, the students in the regular program demonstrated a slightly larger accuracy gain than those in the experimental group. Similarly, they did not differ in terms of how many pronunciation errors they made and how quickly they spoke.

As for the results of listeners' ratings, students in both groups were evaluated as being less accentedness and more comprehensible and fluent. Comprehension-based instruction as an experimental program did not lead to better results for learners' comprehensibility and fluency than the regular program. Due to this result, it appears that this study is different from other studies mentioned above. All in all, however, the results of these studies raise a striking notion about the precise contribution of pronunciation training to the development of L2 pronunciation.

Bringing the biological and pedagogical variables to the forefront in the acquisition of phonology, Elliott (1995) carried out a study on the effects of formal instruction in pronunciation. The researcher conducted an experimental study in which 66 undergraduate students served as subjects. In order to explain the acquisition of pronunciation, the subjects in both groups were implemented pre- and post-tests including four sections in different types

of pronunciation tasks before and after pronunciation treatment while only the subjects in the experimental group were provided with pronunciation instruction. The analysis of the data showed that pronunciation instruction had positive effects on learners' accuracy of pronunciation. Another finding suggested that subjects who were more interested in their pronunciation had better mastery over their second language phonological system.

Another researcher who identified a positive correlation between explicit instruction of phonological forms and pronunciation ability was Kissling (2012). However, the researcher presented a different result in her study claiming that pronunciation instruction can also improve learners' perceptions of L2 phones as well as their production. In this study, it was aimed to find out the effects of explicit instruction on perceptive abilities for target phones. On the basis of this purpose, an experimental study was conducted by comparing a control group with an experimental group. 95 first, second and third year learners of Spanish were participants in the study. The participants were randomly assigned to the groups. The experimental group received instruction through four online modules teaching aspects of Spanish phonology and phonetics. The control group, on the other hand, watched vidoes of Spanish native speakers and took dictation but were not provided explicit pronunciation instruction. The participants' perception and production of the target phones including a variety of consonants were measured in pre- and post-tests using different tasks. They were also asked to complete a questionnaire which enabled them to share their experiences about pronunciation. The results revealed that participants in both groups improved their production abilities equally while only those in experimental group who received explicit instruction improved their discrimination and identification abilities for target phones. This result suggests that explicit instruction has also positive effects on learners' abilities to perceive target language phones.

The perception-production relationship is most directly seen in results of perceptual instruction studies as in the study provided by Kissling (2015). This study demonstrated that teaching learners to discriminate and identify a specific feature of L2 speech both improves their ability to perceive this feature and promotes their ability to produce it. Providing similar results with those of the study conducted by Kissling (2012), in this study, the aim was to investigate the effects of phonetics instruction on perception of L2 sounds rather than production of these sounds. Eight Spanish phones were selected as the linguistic targets since they were the segments most commonly examined in Spanish phonetics research. 87 introductory, intermediate and advanced Spanish learners participated in the study. Those in the experimental group received pronunciation instruction including four modules which

focused on different phones. Learners completed a discrimination task as a pre-, post- and delayed post-test. The main finding of the study was that Spanish phonetics instruction provided learners in the experimental group with an advantage in discriminating target phones over the control group which did not receive such instruction. Another result of the study suggested that the control group that received similar production practice and feedback but not more exposure via instruction displayed improvement immediately after instruction. The effect, however, disappeared later. On the basis of these findings, one can conclude that explicit phonetics instruction seems to be advantageous for improving perception abilities of language learners and improved perception abilities might be a factor facilitating learners' productive abilities.

In addition to Kissling (2012, 2015), Huthaily (2008) conducted a study to investigate whether explicit pronunciation instruction improves sound production and recognition skills. 46 English-speaking students of Arabic language were divided into the experimental group consisting of 24 participants and the control group with 22 participants. The experimental group received treatment on letters and sounds of Arabic with an introduction to phonetics and phonology of English and Arabic whereas the control group did not receive such instruction. All of the participants took a sound recognition pre- and post-test and a sound production post-test. Also, the participants in the experimental group completed a survey to share their views about the importance of pronunciation instruction. The findings of the study revealed that the experimental group had higher scores in sound production and recognition tests compared to the control group. On the basis of this result, it seems that phonetics and phonological instruction improves sound recognition and production skills of language learners. Contributing to the relevant literature with different results from those of the study carried out by Huthaily (2008), Gonzales-Bueno and Quintana-Lara (2011) adapted an instructional approach to the teaching of L2 pronunciation. Based on Input Processing Model (Vanpatten, 1996, as cited in Gonzales-Bueno and Quintana-Lara, 2011), Processing Instruction requires exposure to controlled drills and learners' attention is directed to the form of the input to attach meaning to it. The researchers aimed to find out whether this instructional approach improves learners' production and perception skills. From three different classes, 24 English speaking learners of Spanish who did not receive any systematic pronunciation instruction prior to this project participated in the study. These three groups were randomly assigned to a different approach.

While the first group received Pronunciation Processing Instruction, the second group was provided a traditional approach. The third group, on the other hand, did not receive any

pronunciation instruction. Each treatment lasted for nine weeks. The students' perception and production skills were determined by a discrimination test, an identification test and spectrographic analysis before and after the treatment. The results of the study revealed that there was no difference between pre- and post- perception tests while production data analysis showed a trend towards improvement in the group receiving Pronunciation Processing Instruction. The fact that different results were obtained in the studies conducted to investigate the effects of pronunciation instruction on learners' production and perception skills gives rise to the notion that the efficacy of pronunciation instruction cannot be generalized. It seems that various factors such as learner groups, instructional approach, and tests used to measure the variables may result in different results regarding the efficacy of pronunciation instruction on learners' phonological development.

Approaching the issue from a different perspective, Tlazalo Tejeda and Basurta Santos (2014) carried out a study how pronunciation instruction was administered in language classrooms with elementary students and whether it had effects on students' confidence. Conducting a qualitative case study, Tlazalo Tejeda and Basurta Santos (2014) used three different types of instrument including observation, semi-structured interviews and reading aloud recordings. The participants were 8 elementary Spanish learners of English whose ages ranging from 18 to 20 years old. They were interviewed and asked to read a passage aloud and record their readings. Using an observation sheet, classroom observations were administered. The analysis of the data obtained through observation, semi-structured interviews and reading aloud recordings provided significant results. Regarding to the issue how teachers handle pronunciation in language classrooms, the results showed that enough time is not devoted to pronunciation teaching while only drilling and textbooks activities are used most of the time devoted to pronunciation instruction. As for the impacts of instruction on students' confidence, it was found that students receiving pronunciation instruction, though not enough, developed confidence when they produced words and sentences in English. These results suggest that language learners need more explicit instruction to practice phonological aspects and develop their pronunciation and thereby to raise their confidence when speaking in target language.

A recent study supporting the contribution of instruction to learners' speaking skills belongs to Ospina Cortes (2014). Conducting a qualitative study, the researcher aimed to investigate the pronunciation development based on basic concepts of phonetics and phonology in order to increase self confidence in the listening and speaking skills. Working with 20 adult learners of English, the researcher provided forty-six hours of instruction over a

period of one month and a half. The English Phonemic Awareness test was used as pre- and post-test. Comparing the results of the pre- and post-tests, it was found that pronunciation instruction had positive impacts on speaking skills. According to the results of the study, teaching of basic concepts in phonetics and phonology can be suggested in order to increase self-confidence of learners and improve their speaking skills.

Unlike Ospina Cortes (2014) using adult learners as participants of his study, Ryder et al. (2007) investigated the benefits of explicit instruction for children with early reading difficulties. 24 children, either in treatment or control group were included in the study. Treatment group was provided a course including 56 highly sequenced, semiscripted lessons in phonemic awareness and alphabetic coding skills over a period of 24 weeks. Five different tests involving phonemic awareness, phonological decoding ability, context free word recognition ability, accuracy of recognizing words in connected text, and reading comprehension were used as pre- and post-tests in the study. The pre- and post-test results of the intervention and control group on all measures suggested that the participants in the intervention group outperformed the control group at post-test on all measures. Interpretation of the results reveal that the intervention program can benefit children with reading difficulties to improve the phonological awareness skills, decoding ability and context-free word recognition.

Another study investigating the efficacy of pronunciation instruction on students' confidence as well as their motivation and comprehensibility was conducted by Silvestri (1996). Two groups of students taking the same Spanish course took part in the study. The participants were native speakers of English. Both groups received the same instruction. The experimental group, however, was given specialized pronunciation instruction twice a week over the course of ten weeks. Before and after the treatment, both groups were administered pre- and post-test of pronunciation and comprehensibility and pre- and post-survey on confidence and motivation in L2 learning. According to the results of the study, learners in both groups had similar levels of confidence and motivation when speaking in Spanish and had similar levels of proficiency in pronunciation and comprehensibility prior to the pronunciation instruction. After pronunciation instruction, on the other hand, the results of the post-tests showed that there was a significant difference between control and experimental group in terms of pronunciation and comprehensibility as in the studies of Chiba (2012), Roccamo (2015) and Saito (2012) while there was no significant difference between experimental and control groups in terms of learners' confidence and motivation.

Although Tejeda and Basurta Santos (2014) supported the notion that pronunciation instruction in the target language may result in increased student confidence, the results of the study conducted by Silvestri (1996) did not provide positive effects of pronunciation instruction on learners' confidence. This might be because of the teachers and students' feelings toward teachers and classroom environment as well as the pronunciation intervention itself. The students might not find pronunciation instruction encouraging enough to make them feel confident and motivated to use target language. Based on these factors, it can be suggested that teachers have a crucial role in handling pronunciation courses and creating a comfortable classroom atmosphere for students.

The positive impact of pronunciation instruction was also supported by Tark (2016) who carried out an experimental study in order to investigate the effects of pronunciation teaching on the acquisition of Korean obstruents including stops, fricatives and affricates in word-initial position. Two groups of English-speaking learners of Korean were included in the study. All of them were non-heritage Korean speakers. The data were collected using both quantitative and qualitative methods from experimental and control groups. The experimental group received pronunciation instruction including eight sessions with ten hours. Both groups took production and perception assessments. Written evaluation with a short survey and interview data were utilized to find out how second language learners of Korean perceive pronunciation training. In order to analyze the data, acoustic analysis with statistics, perception analysis, and human rating methods were used. The findings revealed that L2 learners perceived and produced some aspects of pronunciation better than others. Also, it was found that L2 learners in the experimental group improved in all stops, affricates and fricatives in the post-test compared to those in the control group. The results of this study resemble those in the study conducted by Kissling (2012). Both studies provide clear evidence for the integration of pronunciation teaching into language classrooms to improve perception and production skills of language learners. This notion may lead to the conclusion that pronunciation instruction plays an important part in language teaching field.

In contrast to the studies supporting the notion that pronunciation training,even in brief phonological input experience, can lead to improvements in learners' phonological development, some studies, though not many in number, provide counter-evidence that there is not a close relationship between pronunciation instruction and phonological competence. For example, Ducate and Lomicka (2009) showed that pronunciation may not improve with respect to some aspects such as accentedness and comprehensibility because of some factors as in their study.Ducate and Lomicka (2009) carried out an investigation to examine the

effectiveness of podcasting as a tool for integrating pronunciation into intermediate language learning. 12 learners of German and 10 learners of French whose L1 were American English participated in the study. The participants were asked to record 5 scripted podcasts and to complete a survey as a pre- and post-test in order to elicit their attitudes toward pronunciation. After making their own recordings, these recorded podcasts were judged by two raters on comprehensibility and accentedness. The results were striking: it was not found significant improvement in students' comprehensibility and accentedness. This might be because of the duration of the treatment and the lack of in-class pronunciation practice. It might also be noteworthy that students perceived the podcast project positively. Based on these results, it can be suggested that podcasting can be effective in pronunciation development with appropriate training.

A similar effect of pronunciation training has been shown on intelligibility (Kennedy, 2008), which suggests that L2 exposure/use and learners' own views about their communicative abilities may influence learners' L2 speech development. Aiming to explore the changes in the pronunciation and intelligibility of language learners and to identify the factors affecting these changes, the researchers conducted an experimental study. 17 second language graduate students recorded three personal anecdotes over five months. Nine students received pronunciation instruction focusing on suprasegmental features. Classroom observations and interviews were also administered. The anecdotes were listened and rated by native speakers on accentedness, comprehensibility and fluency. Neither instructed not uninstructed learners showed improvement in pronunciation and intelligibility. Also, many L2 learners receiving instruction referred that they did not improve sufficiently although they expressed satisfaction with their communicative abilities in target language. These results suggest that pronunciation training based on prosodic features may not always lead to positive changes in intelligibility and pronunciation. On the other hand, it is possible to note that learners' perceptions regarding their communicative abilities and L2 exposure / use are related.

One of the studies that investigated the efficacy of explicit instruction was carried out by Kissling (2013). In this study, however, it was found out different results from those in Kissling, 2012 and Kissling, 2015. In her study, Kissling (2013) compared explicit instruction in Spanish phonetics with implicit instruction in which similar input, practice and feedback were used.95 participants who were enrolled in introductory, intermediate and advanced Spanish foreign language courses were divided into two groups as experiemental and control group. The experiemental group were asked to complete four computer-delivered interactive

modules based on an introduction to segmental aspects of pronunciation and received explicit instruction on phonetics. The control group, on the other hand, received no such instruction even though they completed similar modules to those in the experimental group with the same exposure, practice and feedback. The results of pre-, post- and delayed post-tests showed that both groups improved their pronunciation equally. In other words, there were no significant differences between the experimental and control groups in terms of their development in Spanish phonetics. Based on these findings, Kissling (2013)noted that learners improved their pronunciation at the segmental level as they were exposed to L2. Central to Kissling's (2013) comment is the notion that success in L2 pronunciation learning seems to be based on the extent of learners' experience with that language.

Research on the effects of instruction with a focus on phonological aspects provided another study carried out by Harris (2002) which supports that pronunciation improvement occurs resulting from exposure to target language rather than explicit formal instruction on pronunciation as stated in the mentioned-above study conducted by Kissling (2013). Working with 27 subjects (12-experimental, 15-control group) who were Chinese students in an ESL program at the University of Cincinnati, Harris (2002) administered this study in order to evaluate differences between trained listener ratings of pre/post performance in pronunciation for ESL speakers participating in a pronunciation training program and those of untrained listeners. Also, it was aimed to explore the differences in characteristics of goals, approaches and techniques used with subjects displaying high and low levels of pronunciation improvement. The researcher used an adapted screening protocol to determine the differences between the subjects receiving pronunciation instruction and those receiving no such instruction. After the treatment, both group were given pre- and post-assessment tests and the experimental group was rated by 15 untrained listeners on articulation, intonation and loudness. The study revealed findings which showed that both trained and untrained listeners observed improvement in the areas of articulation and intonation. However, the improvement of the participants in the experimental groupwere similar to those in the control group even though the control group did not attend pronunciation training. It seems that pronunciation instruction did not contribute to learners' pronunciation development. The reason for their phonological development, then, was likely their exposure to English during 2 months in the United States prior to pronunciation training.

Based on the studies mentioned above supporting no effects of explicit instruction on pronunciation development, it can be suggested that pronunciation instruction may not be effective in some cases and pronunciation can be improvedwithout receiving explicit

instruction. The results of these studies, though not conclusive, appears to support the idea that some other factors may influence this process negatively. The amount of training, for example, may not be enough to suggest that pronunciation development can occur. Another reason for this failure might be the methods or tools used in pronunciation instruction as well as the interventions focusing on only a single feature. The input, practice and feedback provided to learners may not also facilitate learners' development as also suggested by Kissling (2013). If pronunciation training does not contribute to learners' improvement, the question arises: what contributes to learners' pronunciation improvement? Possible explanations for this circumstance include the time spent by exposing to target language as stated by Harris (2002) and thereby experience gained in L2 pronunciation.

In pronunciation teaching, applied linguistics views pronunciation as a marginalized topic. Books and journals related to applied linguistics do not mention pronunciation and conduct few investigations into pronunciation. In spite of some researchers' efforts to give more attention to pronunciation, texts about pronunciation teaching and textbooks designed to teach pronunciation do not provide a direct link between findings of researchers and ways to teach pronunciation. Also, there is not adequate knowledge about the way of integrating pronunciation instruction into language teaching settings. In this sense, Derwing and Munro (2005) claim that language programs avoid utilizing research findings and empirical evidence of results of studies carried out by researchers to upgrade teaching materials that are based on understandings of successful practice and this situation leads to the deficiency in the field of pronunciation teaching research and very little trust on the existing research.

As for the theoretical foundation of pronunciation teaching, Malmeer and Araghi (2013) state each language teaching method looks pronunciation with a different perspective and the practicality of pronunciation education is discussed by many researchers and practitioners some of whom think language learners do not benefit from pronunciation education as they improve their pronunciation skills with their own methods but others think pronunciation education is beneficial to learners in terms of practicing accurate pronunciation and improving learners' attitudes toward pronunciation. In consideration of the effects of new approaches, the goals of pronunciation instruction may vary from researcher to researcher.

The goal and the focus of the pronunciation instruction are the elements with the most consistent links to pronunciation instruction research. According to Park (2015), many language teachers and learners seem to be confused about the goals of pronunciation due to the common belief supporting the idea that having a native-like accent is almost impossible after early childhood. This situation makes learners and teachers leave pronunciation out of

scope of language learning and teaching. Thomson and Derwing (2014) claim that despite the scarcity of empirical studies related to this issue, meaning based pronunciation instruction and exposure to intelligible pronunciation have been emphasized due to the development of Communicative Language Teaching approach in the 21st century especially since 2005. The dominant effect of CLT shifted the focus of phonological instruction from native-like accuracy to conveying meaning appropriately and sufficiently. Thereby, intelligibility has been considered to be a more reasonable and realistic goal in pronunciation instruction. (Park, 2015). Thomson and Derwing (2014) support the intelligibility in pronunciation teaching commenting that helping learners become more understandable should be the primary concern of pronunciation research and instruction. In their study conducted to investigate the efficacy of pronunciation teaching, they draw the conclusion that acquiring native-like speech is an unrealistic goal while intelligibility and comprehensibility are more achievable. For this reason, research based on these components deserves more appreciation than accentedness.

Henderson, Frost, Tergujeff, Kautzsch,Murphy, Kirkova-Naskova & Curnick (2012) highlight the importance of the aim of pronunciation instruction as it determines what teachers do with learners to reach the goals.On the other hand, it is open to dispute whether native-like pronunciation or intelligible and comprehensible pronunciation should be aimed in pronunciation teaching. As such, many pronunciation practitioners and researchers have addressed this issue in their studies (Celce-Murcia et al., 2010; Derwing, 2010; Gilakjani, 2012; Gilakjani, 2016; Kang, 2010; Martin, 2013; Munro,2010; Murphy, 1997; Steed & Cantero, 2018;Takagishi, 2012; Wells, 2005).Most of the studies suggest intelligibility as the main goal of prounnunciation instruction since the Communicative Language Teaching has been the dominant approach in language teaching and this approach brings communication into the forefront.Prior to communicative views of language learning, pronunciation was regarded as an aspect of linguistic and accuracy rather than communicative competence and conversational fluency(Pennington & Richards, 1986). With the advent of communicative approaches in language teaching methodology, the status of pronunciation shifted from traditional views to more communicative ones in language teaching. Therefore, Pennington and Richards (1986) point out intelligibility as the goal of pronunciation instruction stating that pronunciation should be taught as a significant part of both referential and interactional meaning, not only as a component of oral production of words and sentences. According to Munro (2010), similarly, the notion of intelligibility, as a pronunciation teaching principle is beyond dispute among all other ideas adopted by contemporary pronunciation practitioners. Munro (2010) believes that intelligibility and comprehensibility deserve higher priority than native-like accent relating intelligibility and comprehensibility with communicative success.

He suggests that learners can become more intelligible and comprehensible through pronunciation instruction. In a similar vein, Gilner (2006)regards intelligibility and comprehensibility as core components of pronunciation teaching and thereby the researcher claims that the goals of pronunciation instruction promote learners to acquire knowledge, awareness, and skills which address intelligibility and comprehensibility.

One of the most frequently-cited studies conducted by Derwing (2010) identifies intelligibility as less utopian and ultimately achievable goal for pronunciation instruction. Likewise, another researcher who emphasizes intelligibility and comprehensibility as the fundamental goals of pronunciation instruction is Martin (2013). In this respect, pronunciation instruction should concentrate on the features facilitating successful communication while minimizing the use of the features which do not have much effect on the improvement of intelligibility and comprehensibility. Investigating the content, objectives and learning tasks of phonology courses offered by MATESOL programs in the U.S., Murphy (1997) suggests that speech intelligibility needs of language learners play an important part in MATESOL courses. These courses focus on the topics in phonology providing language teachers with important opportunities to meet intelligibility needs of L2 learners. This issue refers that intelligibility is the core component of pronunciation instruction in MATESOL programs. Takagishi (2012) approached the same issue from a different perspective. The researcher investigated non-native English teachers' views towards the goals of pronunciation instruction. In this sense, a qualitative study was conducted in order to elicit participants' beliefs in depth. 8 non-native teachers of English from Hong Kong and mainland China participated in the study. They were asked to take part in an interview including two parts. In the first part, they were asked to read 10 semi-structured questions and answer them to elicit their attitudes toward pedagogic goals on pronunciation and towards their own English accent. As for the second part, the audio-recordings of six different non-native speakers were presented to participants in order to examine their attitudes toward others' English accent. They listened to these recordings and ranked the speakers in terms of their accents. The results revealed that non-native teachers seemed to target intelligibility as the goal of their own teaching rather than nativelikeness. This might stem from some reasons such as learning andteaching experiences of teachers and exposure to non-native varieties. Based on the results of this study, it can be suggested thatnon-native language teachers may prefer intelligibility as the goal of their own teaching because they find it difficult to attain a native-like accent based on their own learning. Also, teaching native-like accent is likely challenging for non-native teachers, which influence their attitudes toward the goals of pronunciation teaching.

Investigating the "nativeness" of 195 participants speaking Swedish as a second language, Abrahamsson and Hyltenstam (2009) provided notable implications for the goals of pronunciation instruction. The researchers explored whether language learners can attain nativelike levels of L2 pronunciation. The participants of the study whose native languages were Spanish started learning Swedish between the ages of 1 and 47 years. The participants identified themselves as being native speakers in Swedish. However, the results of listening sessions with native-speaker judges showed that only a small number of the late learners were perceived as native speakers of L2. Also, only a few of the early learners were found to exhibit actual nativelike competence and behavior on all measures of L2 proficiency. These results lead to the conclusion that native-like ultimate attainment of L2 is an unrealistic goal for pronunciation teaching, especially for adult learners. Therefore, intelligibility appears to be more realistic as the pedagogic goal of pronunciation teaching.

Another researcher emphasizing intelligibility in pronunciation education is Delamorandiere (2016). The researcher states that the integration of communicative and task-based teaching into language teaching made intelligibility more significant rather than an accurate native-speaker model. Focusing on error-correction in pronunciation, she claims that today, errors interfering with intelligibility are corrected and incidental correction is made during meaning-focused tasks. In her study, she described students' perceptions about pronunciation correction, instructors' opinions and instances of incidental correction. The study was conducted with 54 students and five instructors by observing and interviewing. The findings show that incidental correction focused more on segmental features of pronunciation in the student-centered contexts such as presentation and reading aloud tasks rather than suprasegmentals which were minimally corrected in discussion activities. Another indication is that students approve pronunciation correction including negotiation and avoid being corrected with direct recasts, which shows that intelligibility took precedence over nativeness.

It is clear that the insights obtained from the mentioned-above studies carried out in recent years motivate much research on intelligible and comprehensible pronunciation instruction rather than native like accuracy-based instruction. This should not mean accentedness has to be ignored completely. However, discussions about the goals for pronunciation teaching seem to mostly be pertinent to the concepts of intelligibility and comprehensibility. Therefore, providing language learners with phonological instruction that help them become not native-like speakers of L2 but intelligible and comprehensible users of target language is of great value in language teaching field.

Despite the fact that pronunciation is not the most significant aspect of language leaning, it should be accepted that language learners cannot receive messages during interactions with other learners or native speakers of a language with little or no attention to pronunciation. However, it cannot be proposed that the significance of suprasegmental features is more evident for a better communication than segmentals. It is worth noting that most of the research on pronunciation of recent period is devoted to suprasegmentals, for it is regarded important for communication. (Liu,2017; Rasekhi Kologdaragh, 2010; Wong, 1987). Liu (2107) attracts attention to the reasons why prosody cannot exactly be understood by ESL teachers in spite of its importance in conveying the intended message. She discusses that even if instructors recognize the need for prosody teaching, they have difficulties to implement this issue within language teaching process due to the lack of confidence to address the issue. Also, textbooks authors do not follow new developments in pronunciation teaching and prepare textbooks focusing on segmental features and neglecting suprasegmental functions at the discourse level.

One major problem that pronunciation instructor encounter in language classrooms is related to the focus of pronunciation instruction. Because the relationship between the focus of pronunciation instruction and pronunciation development of learners is so complex, it is helpful to take segmental and suprasegmental features into consideration on the basis of the studies conducted to examine these aspects (Barb, 2005; Bouchhioua, 2017; Chang, 2006; Counselman, 2010; Dang, 2017; Derwing, Munro & Wiebe, 1998; Derwing & Rossiter, 2003; Khaghaninejad & Maleki, 2015; Koike, 2014; Lee, 2009; Lord, 2005;Ma, 2015; Tsiartsioni, 2017; Ueno, 1995; Zhang, 2004).

In many language learning programs, teachers teach speech sounds individually without paying attention to suprasegmental levels. According to Wong (1987), although the instruction of suprasegmentals should be more significant than phonological awareness and accuracy, the anticipated advantages of this situation are not observed in language learners' oral proficiency and do not satisfy their expectations. Rasekhi Kologdaragh (2010) states there is no agreement regarding which feature of pronunciation should be the first priority of language teachers and learners. However, in recent years, many teachers have given more priority to suprasegmental aspects of pronunciation than segmental features.

Emphasizing segmental features as the focus of pronunciation instruction, Lee (2009) advocates Korean learners of English have difficulties in understanding the differences between the vowel sounds. In order to address this problem, the researcher conducted a study using manipulated words with various vowel durations and thereby examined the effects of

explicit pronunciation instruction based on segmental features on the acquisition of perception, production and generalization of vowel sounds in English. As such, one experimental and one control group including six Korean learners of English were composed. Four English words including four English high vowels were produced by a male native speaker and their durations were measured. These recordings were listened to the participants and they were asked to identify the correct pair of front vowel words. The pronunciation instruction, then was given to the participants in the experimental group. After this session, post-test including perception and production measurements was administered in the same way as pre-test. The results showed that the experimental group displayed better improvements in generalization of their newly acquired knowledge into perception of new words as well as the perception of the words produced by native speakers than the control group. However, they did not produce target sounds better than those in the control group.

Another recent study supporting the contribution of instruction to the perception skills of language learners belongs to Counselman (2010). Focusing on a different point, the researcher compared perception and production assessments. Working with 28 students of Spanish, Spanish vowels /e/ and /o/ were aimed to be taught in two separate sections of a Spanish conversation class. One section received more typical production assignment while the other section received pronunciation assignment focused on perception of L2 speech sounds. The results of the pre- and post-tests revealed a significant improvement in the dipthongization of target vowel sounds for the section that received perception assignment but no improvement was found in the scores of the section receiving the production assignment. Similarly, Lord (2005) conducted an experimental study focusing on segmental features of target language. Providing a standard phonetics instruction to the experimental group consisting of 17 undergraduate students who enrolled in a Spanish phonetics class, the researcher recorded the participants' reading a short paragraph in order to rate them for accuracy of pronunciation. The results of this study were consistent with those in the studies conducted by Counselman (2010) and Lee (2009). The experimental group improved their pronunciation of target features.

Interpretation of the findings of thesethreestudies reveals that explicit segmental-based pronunciation instruction benefits language learners in improving perception and production skills. However, these results do not identify segmentals as a more guiding principle for pronunciation teaching rather than prosodic features. Providing evidence for the clarification about whether segmentals or suprasegmentals are more superior in the acquisition of production and perception skills in L2,Khaghaninejad and Maleki (2015) conducted a study

comparing the effects of segmental and prosodic features on learners' listening comprehension improvement. Khaghaninejad and Maleki (2015) state that lack of listening comprehension may result in inability in producing the sounds or words accurately. Carrying out an experimental study, the researchers worked with 57 learners of English whose ages ranged from 15 to 19. There were three groups (2 experimental, 1 control) in the study. One of the experimental groups received segmental-based instruction while second experimental group was given suprasegmental-based instruction over 7 weeks. The same listening tests were administered to all groups as pre- and post-tests in order to explore the effects of the study treatment.

The results of the study revealed that the experimental group receiving segmental-based treatment performed better than the experimental group that received a treatment on suprasegmentals. The findings of the study refer a superiority of segmental-based instruction over suprasegmental-based pronunciation instruction for the development of listening comprehension which facilitates production of phonological features.

Unlike Khaghaninejad and Maleki (2015), some researchers provide a counter-argument and evidence for the discussions about whether segmentals or suprasegmentals have greater impacts on pronunciation acquisition (Bouchhioua, 2017; Derwing & Rossiter, 2003; Gordon, Darcy & Ewert, 2013; Ueno, 1995). These researchers claim teaching suprasegmentals contribute to pronunciation development more than teaching segmentals. Gordon *et al*. (2013), for example, presented a study supporting this claim. There were three groups of participants in this study. However, this study differed in the type of pronunciation instruction that the groups received and in the results of the data from Khaghaninejad and Maleki (2015). Gordon, Darcy and Ewert (2013) provided the first, second and third groups with the explicit pronunciation instruction focusing on segmentals, suprasegmentals and a combination of them respectively. The analysis of classroom-treatment recordings obtained through pre- and post-tests showed that the explicit instruction, generally speaking, increase learners' phonological awareness and is beneficial for their comprehensible speech while only the experimental group receiving suprasegmental-based pronunciation instruction displayed a significant improvement in their comprehensibility scores from pre-test to post-test. When compared with the findings of Khaghaninejad and Maleki (2015)'s study, these findings give priority to the suprasegmental aspects in pronunciation teaching. Derwing and Rossiter (2003), based on the findings of their study, maintains that when language learners encounter a communication problem, those receiving segmental instruction can focus on the

mispronounced form in a self-repetition whereas suprasegmental training help them gain skills which can be used in extemporaneous speech production.

The notion that suprasegmentals are crucial in pronunciation teaching for prosody has greater effects on increasing intelligibility and comprehensibility is also supported by Liu (2017). The researcher conducted a study to find out whether prosodic treatment involving the features of stress, rhythm and intonation affects speakers' prosodic development and comprehensibility. The study was carried out using visual feedback and a noticing-reformulation technique with seven student participants. Findings obtained from the study indicated that there was a significant improvement in intonation patterns and overall comprehensibility. It can be concluded that, considering these findings, for an overall comprehension development, prosodic instruction is essential and suprasegmental features increase pronunciation accuracy and comprehensibility. Emphasizing the significance of pronunciation for communicative processes, Pennington and Richards (1986) presented similar arguments about the focus of pronunciation instruction. They state that pronunciation teaching and learning involves more than the accurate production of sounds since this process is composed of articulatory, communicative and cognitive issues as well as including the acquisition of a number of complex phonological forms linking speech sounds to meaning.

In a similar vein, Barb (2005) maintains that teaching suprasegmentals contributes to the improvement in intelligible speech based on the results of the study which compared the effectiveness of a traditional Edwards and Strattman method and its modified version. In this study, three expert listeners evaluated pre- and post-instruction recordings of the speakers receiving intonation-based pronunciation instruction through one of these two methods. The listeners rated the use of speech characteristics identified as being instrumental for intelligible speech on a 5-point Likert scale and three yes/no responses. As in Gordon, Darcy and Ewert (2013), Barb (2015) found out that focus on suprasegmentals in pronunciation teaching promotes learners' comprehensibility.

In addition, Tsiartsioni (2017) contributed to the relevant literature conducting a suprasegmental-based experimental study. Focusing on the production of English rhythm by Greek learners whose ages ranged from 10 to 16 over 16 pronunciation lessons, the researcher aimed to explore the effects of pronunciation instruction in foreign language setting and the role of age in classroom environment. In this respect, the efficacy of pronunciation instruction including some aspects of rhythm such as word stress, sentence stress, content versus function words and reduced speech was measured through recordings of the participants' speech samples before and after pronunciation instruction. The results of pre- and post-tests revealed

that a well-planned pronunciation training provides compelling effects on the production of L2 English rhythm. Also, the 13-year-old group performed better than 10-year-old group. The findings of this study as in Barb (2015) and Liu (2017), support that giving priority to the prosodic features is more beneficial for learners' overall pronunciation development. For this reason, suprasegmental topics can be included in pronunciation teaching classes in order to help language learners achieve communicative competence in L2.

Based on the above-mentioned studies related to the status of segmentals and suprasegmentals in pronunciation teaching, it can be summarized that a considerable amount of evidence exists as to whether one focus of pronunciation instruction has a superior role to another or even whether any form of instruction is beneficial at all. Most of these studies advocate one focus over another making a convincing argument for the case that training on segmentals or suprasegmentals is useful for pronunciation development. On the other hand, it seems that interest in suprasegmentals training has increased dramatically in recent years.On the basis of this argument, it can be suggested that knowing how the various pronunciation aspects actually affect the way language learners develop their pronunciation may profoundly strengthen the rationale for pronunciation pedagogy. Therefore, pronunciation teachers and practitioners should lay more emphasis on what aspects of pronunciation should be focused first and foremost in pronunciation teaching classrooms.

Evidence for teacher-related factors is also needed in pronunciation instruction pedagogy. In order to provide evidence to this field about teacher behavior and practices related to the teaching of pronunciation, Foote, Trofimovich, Collins and Urzua (2016) conducted a corpus-based observational study. The corpus with a large number of words representing over 40 hours of classroom observations was included in the study. Three teachers who were highly proficient speakers of English were observed without being informed that their pronunciation practices were examined. The videotaped lessons, then were analyzed in terms of their type, linguistic target and impact. The findings of their studyreveal that teachers focused on pronunciation with only % 10 percentage of all language-related episodes in the classes, which leads to the interpretation that teachers do not emphasize phonological aspects of language as much as they think they are. This may be because some teachers do not see pronunciation instruction as beneficial while many teachers may lack the requisite training.

Kelly (2000) argues that pronunciation is neglected since it is complex and deprived of scientific foundation as well as inadequate materials and proficient teachers to teach pronunciation. The researcher proposes that teachers and learners express a common interest

in pronunciation teaching but the lack of theoretical foundations to teach pronunciation prevents teachers from improving their practical pronunciation teaching skills. Another reason why pronunciation is neglected is teachers' fear of having deficient knowledge of pronunciation teaching techniques rather than lack of being interested in the topic (Seyedabadi, Fatemi & Pishghadam, 2015). Also, Ueno (1995) attributes the possible disregard shown for pronunciation to the reasons such as teachers' biases against pronunciation teaching and their lack of expertise in pronunciation. According to Barnes-Hawkins (2016), this neglect of teaching pronunciation in the classroom, arguably, may result from teachers' doubt and lack of sufficient training in how to teach pronunciation. Tsurutani (2008) has provided similar arguments about the status of teachers in pronunciation teaching stating that teachers do not have enough capacity or time to point out students' pronunciation errors in language classrooms. Even if they have enough time or capacity, they may not have adequate pronunciation knowledge of target language.

In addition to the above-mentioned researchers, Baker and Murphy (2011) highlight the lack of scholarly research on pronunciation instruction in the teaching of ESL and EFL and they observe this limitation applying to teachers' knowledge, beliefs and understandings. The ignorance related to pronunciation teaching can be observed in teacher preparation programs as well as classroom-oriented research. It is also asserted that pronunciation component in language teacher education has not been taken into consideration by theoretical definitions, documented study, or research understandings. Baker and Murphy (2011) suggest that empirical research on teacher training about pronunciation education should be focused on experienced teachers as they can be a valuable source material for the training programs as well as novice teachers.

In contrast to the researchers mentioned above, Derwing and Munro (2005, p.382) claim that teachers are more interested in teaching pronunciation than before and attribute the ignorance of pronunciation in language teaching to the applied linguistics by saying that "Despite teachers' increased interest in pronunciation in recent years, as evidenced by the establishment TESOL interest section and a proliferation of pronunciation for learners, it remains a very marginalized topic in applied linguistics".Examining current pronunciation teaching practices, Foote, Holtby and Derwing (2012) conducted a survey in order to elicit teachers' beliefs and approaches about pronunciation teaching. An adapted survey including 45 questions regarding background information on participants and ESL programs, training opportunities available, materials and tasks used, the nature and amount of pronunciation instruction taught, and views about pronunciation instruction was presented to 201

individuals. The findings of the study demonstrate that most of the teachers did not access university courses on pronunciation training. However, % 86 of the participants in this study expressed that they try to integrate pronunciation into their own teaching. These results give rise to the argument that language teachers do not still receive professional development that will be necessary for teaching pronunciation.

Another result of the study indicates that teachers generally focus on segmental problems in their own teaching even though they seem to be aware of the importance of suprasegmentals. Their attitudes toward pronunciation teaching, on the other hand, were positive, which suggest that most of the instructors believe a stand-alone pronunciation class might be beneficial for learners. The results of this study may contribute support for the notion of Derwing and Munro (2005). In this sense, most of language teachers seem to understand the importance of phonological aspects of language. However, for a complete integration of pronunciation into language classes, they need more professional development opportunities.

Similarly, Derwing and Munro (2009) place great emphasis on the teacher training and support the idea that teacher training programs are required for teachers to learn how to teach pronunciation since language instructors may disregard pronunciation instruction in their language classes if they do not attend such a training program. Henderson et al. (2012) presented a similar perspective and based on the participants' views in their study, they suggest that teacher training on pronunciation teaching is not adequate and this fact does not comply with the requirements of the Common European Framework of Reference (CEFR) which emphasizes pronunciation as a key element of language competence. Derwing (2010) also asserts that teacher education should focus on pronunciation since pronunciation is not only essential for ESL teachers but also for ongoing professional development.

The focus of most studies in pronunciation teaching pedagogy is mainly on pronunciation teaching techniques (Baker, 2014;Celce-Murcia et al., 2010; M. Hişmanoğlu & S. Hişmanoğlu, 2010; Tlazalo Tejeda and Basurto Santos, 2014). The investigation of different types of instruction is significant for the purpose of providing learners with an effective pronunciation teaching environment. Thus, Baker (2014) conducted a study relating teacher cognition with pronunciation teaching techniques.According to the researcher, teacher cognition referring a broad array of notions such as beliefs, perceptions, attitudes and knowledge of teachers plays a crucial role in pronunciation teaching since it might be a reflection of teachers' practices. Baker (2014) aimed at exploring what cognitions experienced teachers have about pronunciation teaching techniques and what their knowledge

and practices regarding techniques. Five experienced teachers in a North American intensive English program participated in the study. Semistructured interviews, classroom observations and stimulated recall interviews were used to elicit their cognitions and practices. The analysis of the data revealed that teachers mostly preferred using controlled techniques. Of all controlled techniques, explaining, examples, checking activities, production-practice, repetition drills, visual identification and testing are used most-frequently by five teachers in the study.

Pronunciation teaching techniques have been also examined by M. Hişmanoğlu and S. Hişmanoğlu (2010) commenting that language teachers traditionally use phonetic alphabet and activities including transcription practice, diagnostic passages, detailed description of the articulatory systems, recognition/discrimination tasks, developmental approximation drills, focused production tasks, tongue twisters, and games. Listening and imitating, phonetic training, contextualized minimal pairs, visual aids, practice of vowel shifts and stress shifts related by affixation, and recordings of learner's production are some of the popular techniques suggested by Celce-Murcia et al. (2010) who maintains that these techniques are still used in pronunciation instruction. Although these techniques are useful for some learners, others may not benefit from them to learn pronunciation. Therefore, new techniques can be developed for those who cannot learn pronunciation easily by using existing techniques. Another suggestion can be provided by Derwing and Munro (2009) who claim that technology can be helpful for an effective teaching instruction when pedagogical specialists examining and developing an understanding of appropriate goals and priorities in pronunciation teaching contribute to the development of technological applications.

Regarding the issue of pronunciation teaching techniques, Tlazalo Tejeda and Basurto Santos (2014) claim that drilling has been the most commonly used technique for a long time although it is not preferred much nowadays since it is more beneficial for classroom activities to enhance students' confidence. Listening exercises, reading aloud activities, tongue twisters and explicit explanations are also suggested by these researchers to teach individual sounds and make students be aware of speech properties including stress, rhythm and intonation to provide opportunity to work on pronunciation.

Celce-Murcia et al. (2010) asserts that other fields such as drama, psychology and speech pathology provide new directions involving the usage of fluency-building activities as well as multi-sensory reinforcement techniques, and the use of authentic materials and instructional technology in the teaching of pronunciation. Currently, technological equipment and applications are very trendy such as computers, cameras and projectors whereas the most

popular one is instructional software which helps people learn languages. Likewise, using audiovisual media can be beneficial for enabling learners to practice phonological patterns efficiently. (Sasanapradit, 2012).

Addressing to the pronunciation curriculum issue as well, Derwing (2010) comments that pronunciation practitioners should place great emphasis on appropriate curriculum choices and remarks curriculum including stand-alone pronunciation classes may be useful for students sharing similar difficulties although learners from different L1s may experience problems in these classes. Therefore, students should be provided programs in which pronunciation is integrated into listening and speaking classes. Investigating the role of curriculum design and teaching materials in pronunciation learning. Alghazo (2015) emphasizes the importance of curriculum in pronunciation education since it revealsto what extentpronunciation is integrated into other language classes in regard to the number of subjects dedicated to pronunciation. Also, analyzing the aspects involved in curriculum, it can be inferred to what extend the area is focused on by taking into account of the advancements of theories and research findings. In his study, Alghoza (2015) points out that adequate attention is not devoted to pronunciation in language curriculum whereas it deserves the attention as a prominent indicator of language proficiency.

Related to the integration of pronunciation in language curriculum, Gilakjani (2011) presents a similar argument pointing out that pronunciation should be considered as an integral part of communication to be incorporated into classroom activities rather than accurate production of individual sounds or isolated words. Therefore, it can be suggested that teachers should combine pronunciation with oral skills and they should focus on segmental and suprasegmentals on every occasion.

Based on the literature reviewed about pronunciation instruction, it can be suggested that course books and materials supporting the efficacy of pronunciation teaching can be provided for EFL teachers. With respect to the role of pronunciation teaching materials, Alghazo (2015) highlights the lack of textbooks involving pronunciation components and lack of pedagogical part of pronunciation in available materials. The findings of his study provide evidence for the notion that teaching materials, especially textbooks play an important role in pronunciation teaching and they should be designed in compatible with students' needs, abilities and proficiency levels.

In addition, enabling learners to be aware of suprasegmental features of English and to understand the pedagogical foundation of classroom activities would be helpful. Learners should be exposed to natural language settings more than usual and should have such

opportunities as interaction with a native speaker in order to monitor their own pronunciation development and practicing pronunciation in relevant contexts. In addition, language instructors should create a learning environment that motivates students to learn pronunciation. The learning environment should make students feel comfortable and provide interaction between students and teachers.

Pronunciation teaching approaches.

Before the late nineteenth century, three contemporary approaches called Intuitive-Imitative Approach, Analytic- Linguistic Approach and the Integrative approach have been developed in the field of modern language to learn language pronunciation (Celcia- Murcia et al., 2010). In these approaches traditional methods and modern techniques are combined.

In an Intuitive- Imitative Approach, learners' ability is significant and learners acquire sounds and rhythms of the target language by listening and imitating without using any explicit materials. They only listen and imitate the sounds of target language and special materials such as videotapes, videos, and computer-based programs are employed to do this. Carey (2002) explains that without providing explicit information, abilities concerning listening to and imitating the rhythms and sounds of the target language may result in an acceptable level of pronunciation improvement. This approach also gives importance to the availability of good models for listening as well as tape recorders and language labs invented in the 1960's,70's and right up into 80's. The audio-lingual method also contributed to the development of this approach. Some of the second language practitioners still support this view although much research is required to decide whether their thoughts have any foundation or not (Carey,2002).

Analytic- Linguistic Approach is the second approach to teach pronunciation in which knowledge and materials related to pronunciation such as phonetic alphabet, vocal charts and articulatory descriptions are provided to learners. In this approach, learners are informed explicitly by focusing on the sounds and speech patterns of target language. (Celce-Murcia et al., 1996). Pronunciation teaching is given priority. (M. Hismanoglu &S. Hismanoglu, 2010). The increasing knowledge in the fields of phonetics and phonology helps the Analytic-Linguistic Approach to be used in language classrooms.

Related to the materials used in this approach, Carey (2002) comments that the phonemic chart, articulatory descriptions, explanations of the form and function of prosody and practical exercises including minimal pair drills and rhythmic chants are among the pedagogical aids whichprovide the basis of an explicit program of accent modification. This

approach was developed to supplement Intuitive- Imitative Approach rather than to replace it. Explicit knowledge is presented in different interactive speech software and websites today within this approach. What distinguish this approach from the first one is the particular emphasis placed on explicit instruction, which is completely ignored in Intuitive- Imitative Approach.

Integrative approach is a current approach and views pronunciation *"as an integral part of communication rather than an isolated drill and practice sub-skill*" (Lee, 2008, p.1). This approach teaches pronunciation by using meaningful task-based activities. Also, pronunciation-focused activities are utilized to promote learners' pronunciation learning process. Suprasegmental features of target language are focused more than before and stress, rhythm and intonation are practiced in extended discourse beyond phoneme and word level. (M.Hişmanoğlu &S. Hişmanoğlu, 2010). Given the priorities of this approach, it can be deduced that integrative approach was developed under the influence of CLT.

Morley (1994) asserts that pronunciation is acquired to supply learners' needs and thereby a dual-focus oral communication program is utilized. In such a program, the micro level instruction is the focal point on linguistic competence by practicing segmentals and suprasegmentals while the macro level basically focuses on more global elements of communication to improve discourse, sociolinguistics and strategic competence employing language for communicative purposes (as cited in M. Hişmanoğlu & S. Hişmanoğlu, 2010).

Research on pronunciation teaching in Turkey.

Pronunciation teaching can be regarded as one of the most complicated but important features of EFL and ESL teaching. Therefore, many teachers may not teach pronunciation explicitly in language classrooms although it is one of the most salient features of a person's speech. Almost all English language instructors teach students grammar and vocabulary, but few of them attempt to teach pronunciation explicitly and take it into account of in their language classes.

It can be observed that Turkish teachers of English are no exception. In spite of the significance of pronunciation, the fact is that in many English language classrooms in Turkey, little attention is paid to teaching pronunciation. That is because teachers believe that teaching pronunciation involves several challenges. Another probable reason is that Turkish EFL teachers do not have suitable course books and materials that facilitate their pronunciation teaching. Likewise, pronunciation instruction research is still scarce and with only a small number of studies carried out to investigate the effectiveness of pronunciation teaching on

Turkish learners of English and the role of pronunciation in language teaching curriculum in Turkey, it is difficult to achieve the goals of international pronunciation teaching profession.

Approaching the phonological issue from the perspective of English as an international language (EIL), Coskun (2011) discusses teaching pronunciation within the view of EIL from the point beliefs of non-native pre-service English teachers. English speakers from different native tongues, and cultures are increasing rapidly and a great number of people have reasonable competence of English language. It appears that the number of non-native English speakers is exceeding over the number of native-speakers of English. This situation has led EIL researchers to work on the reflections of EIL in English language teaching classrooms. There is a need for studies to highlight the importance and role of English pronunciation in Turkey and Coşkun (2011) was inspired from this fact. 47 students were involved in the study and they were asked to complete a questionnaire and a semi-structures questionnaire in order to find out their attitudes towards ELF pronunciation. According to the findings of the study, almost all of the participants are aware of the fact that they cannot have opportunities for exposure to native speech Additionally, the majority of the participants believe that intelligible pronunciation should be the goal of pronunciation instruction while some of the participants believethat it should be aimed to help students become as native-like in language teaching classes. The results lead to the interpretation that English is accepted as international language which is identified as intelligible English. This means that English as an international language should be understood easily by everyone.

Contrastive Turkish-English studies have showed that there are many sounds that Turkish learners of English find difficult to articulate since English phonetic alphabet has several sounds that Turkish phonetic alphabet does not have. (Çelik, 2008; Hişmanoğlu, 2009: Demirezen, 2005; 2010, Seferoğlu, 2005). Each language has a certain amount of vowels and consonants derived from all the sounds that humans are able to articulate. The fact that all the sounds are not included in every language poses a serious a challenge to the language learners. As a general evaluation related to pronunciation problems that language learners need to overcome, Li (2015) asserts that English interdental sounds and suprasegmental features generally pose a challenge for language learners. Cook (2013) attributes the learners' phonological difficulties to cross-linguistic transfer, which means that some phonological features of a language may be transferred to another language depending on the connection of two languages. For Turkish EFL learners, the consonants /θ/, /ð/, /w/ and /ŋ/ which are totally absent in Turkish language are considerably problematic. In addition to pronunciation difficulties that Turkish learners of English encounter, they have problems related to

suprasegmental features of English such as stress, rhythm and intonation as well for the reason that Turkish is not a tonic language (Şenel, 2006). However, research on suprasegmental problems of Turkish speakers of English is very scarce because of the ignorance of pronunciation as a crucial element of English language.

To provide Turkish teachers of English with a more realistic and intelligible pronunciation description in order to teach pronunciation, Çelik (2008) carried out a study to identify a framework involving a reduced but intelligible phonological system for Turkish learners of English to communicate internationally. Two major dialects of English are used as the basis of the study: Received Pronunciation (RP) in the United Kingdom and General American (GA) English since most of the Turkish bilinguals are exposed to the varieties of English language in their language learning processes for the reasons of intense educational, economic, diplomatic and military contacts with these countries. This framework is claimed to provide intelligibility for bilinguals and include phonological features at the optimum level which enables Turkish-English bilinguals to interact with other non-native speakers without having communication breakdown. According to Çelik (2008), Turkish speakers of English tend to speak GA accent even though they desire to speak RP accent since Turkish language is a phonemic language and resembles GA in terms of some phonological features such as the use of /r/, /əʊ/, /ɒ/ and /ʊə/ sounds. For example, Turkish learners usually pronounce /r/ when they speak even if it is a sound in the initial, medial or final positions of words. The word 'car' is pronounced as /ka:/ in RP English while as /ka:r/ in GA accent. However, Turkish learners frequently prefer pronouncing as /ka:r/ exactly like in GA accent.

Based on the findings of the study carried by Çelik (2008), it seems possible for Turkish-English bilinguals to utilize three different strategies when communicating with other native or non-native speakers. First one is utilizing variation across GA and RP. In this strategy, there are two variations in pronouncing of a word that does not affect the meaning of the word and Turkish-English bilinguals are allowed to use one of these variations that they can pronounce easier without impairing intelligibility. As mentioned above, they can prefer the absence of /r/ in RP and they can use /oʊ/ instead of /əʊ/ such as pronouncing the word "go" as /goʊ / which is the variation of GA but not as /gəʊ / in RP. Likewise, RP / ɒ / and /a/ are free variations as well as /ʊə/ and / ʊr/. Turkish-English bilinguals usually pronounce the word "got" as /ga:t/ in GA instead of /gɒt/. Hovewer, in use of /ʊə/ and / ʊr/, they can pronounce both of them such as in "pure" which has variations of /pjʊə / in RP and /pjʊr / in GA.

Another strategy that Turkish bilinguals use is the collapsing similar sounds. In this strategy, speakers replace some English sounds by their approximants which are exist in English and Turkish as well. For example, for the words both “man” and “men”, they use only /men/ while the pronounciation of “man” is transcribed as /mæn/. The other type of approximation appears in the two consonant phonemes /ð/ and /θ/. These two sounds are some of the most challenging sounds for Turkish learners of English since these sounds do not exist in Turkish phonetic alphabet. Li (2015) consider these two sounds which are not common in other languages in the world as marked sounds since most language learners find them challenging to articulate. Turkish speakers of English usually cannot articulate /ð/ and /θ/ sounds and use /d/ and /t/ instead of them respectively. As an example, the pronunciation of “three” can be given since it is pronounced as /θri/ while TE bilinguals articulate it as /tri/. Similarly, /w/ sound is replaced with Turkish /v/ whereas /ʌ/, / ɒ / and /a:/ are collapsed to produce Turkish /a/. The third strategy used by Turkish bilinguals in pronunciation of English words is to pronounce the letters that they do not know how to articulate as it is pronounced in Turkish. This strategy is called as orthographically induced pronunciation which is also considered intelligible by the participants in the study conducted by Çelik (2008).

Given the strategies mentioned above, it can be supported that Turkish learners of English or TE bilinguals have difficulties in pronunciation of some sounds for the reasons that either these sounds do not exist in their mother tongue or they have no idea as to the correct pronunciation of these sounds. Therefore, they may use different ways to articulate the English words. However, this may not pose a problem if the spoken language is intelligible and does not break down communication among the speakers and listeners of that language.

Related to problematic sounds of English for Turkish learners, Hişmanoğlu (2009) carried out a study to find out solutions for the articulation problems of EFL learners in pronunciation of the interdental sounds: /ð/ and /θ/. Similar to Çelik (2008), Hişmanoğlu (2009) attributes mispronunciation of /ð/ and /θ/ to the lack of these sounds in the sound system of Turkish language. He used the audio-articulation method developed by Demirezen (2004) to correct pronunciation mistakes stemmed from /ð/ and /θ/ sounds. Thirty students from Department of English Language Teaching participated in the study. A text chosen from a pronunciation book was used in order to diagnose /ð/ and /θ/ sounds of English as the problematic cases for Turkish learners of English. The researcher implemented a treatment using the audio-articulation method after pre-test. Comparing the results of pre-tests with those of post-tests, the findings revealed that participants performed problematic sounds better after receiving a treatment. This reveals that the method used to improve the articulation of

problematic sounds is effective for improving learners' pronunciation and solving their pronunciation problems.

Among the sounds which is regarded as a crucial problem for Turkish learners of English because of many reasons such as mother tongue interference, vowel reduction, connected speech or lack of pronunciation instruction is the schwa symbolized as / ə/ in English phonetic alphabet. It plays an important part in English vowel inventory since it determines the grammatical category and meanings of words. (Demirezen, 2010). For the reason that Turkish learners of English cannot articulate this sound correctly, Demirezen (2010) identifies the schwa phoneme as a fossilized error for Turkish speakers. Given the syllable-timed nature of Turkish language, there is not a specific vowel distinction and vowel reduced process as in English and the learners and even language instructors cannot perceive, articulate and transcribe the schwa and this situation makes the schwa a fossilized error that leads to unintelligibility and accented pronunciation among Turkish language learners. Therefore, Demirezen (2010) suggests this problem should be rehabilitated and correct use of the schwa needs to be studied by learners in order to be able to have adequate communicative competence and develop professionally.

One method to raise the awareness of a fossilized error in pronunciation is the audio-articulation method which is developed by Demirezen (2005, p.183) who explains the practicality of this method for fossilized errors of English sounds as following:

> This method integrates pronunciation practicing into oral communication in the context of speaking by means of chain drills, substitution drills, repetition drills, inflection drills, replacement drills, restatement drills, completion drills, transposition drills, expansion drills, contraction drills, transformation drills, integration drills, rejoinder drills, restoration drills, question-answer drills, and language games are of great help in this respect.

Recent years have witnessed more studies that focused on investigating the efficacy of pronunciation education. One example of these studies was provided by Seferoğlu (2005) who integrated a commercial accent reduction software into the classes of advanced EFL learners in order to observe the improvement levels of learners' pronunciation at segmental and suprasegmental levels. Through this software program, learners could do many activities such as hearing English sounds, practicing pronunciation of sounds and words, recording their own performance at the segmental level as well as practicing sentences in terms of stress, timing, intonation and rhythm and recording their own voice reading the sentences to compare with native speakers' voice. With reference to the findings of the study, the researcher claims that technology presents many practice and interaction opportunities for EFL learners who are

deprived of natural target language input through software programs that are designed specifically. (Seferoğlu, 2005).

Given the literature reviewed to gain a better understanding the issue of pronunciation teaching in Turkey, it can be summarized that in Turkey, pronunciation is a neglected issue in many foreign language classrooms and most of the learners are not aware of the necessity of pronunciation for an intelligible communication because of the instructors' knowledge deficiency about pronunciation and its teaching and lack of pronunciation as a language component in language curriculum and syllabi. In-class activities are not sufficient for effective pronunciation teaching since learners do not receive adequate and correct input about pronunciation of target language at the segmental and suprasegmental levels. Based on the studies conducted to find out Turkish learners' difficulties they have in pronunciation component, it is fair to say that they usually have articulation problems in sounds that are nonexistent in the sound system of Turkish language and other factors may contribute to the rise of these problems such as lack of adequate training on English pronunciation, natural language input, pronunciation anxiety, fear of negative evaluation and L1 interference. Additionally, Saran et al. (2009) contributes to the explanation related to reasons for the rise of pronunciation problems of Turkish learners of English by saying that input and practice opportunities outside the classroom should be available for language learners to improve their pronunciation. Yet, these opportunities are so limited that learners, especially those learning English as a Foreign Language are almost never exposed to target language in natural setting.

To find solutions for these problems, in addition to techniques such as software programs or accent reduction programs suggested above, more communicative activities may be more helpful for language learners to acquire an intelligible pronunciation. Language practitioners, curriculum designers and language teachers should pay attention to pronunciation more than before and they should identify alternative ways to improve Turkish learners' pronunciation.

CHAPTER THREE

Methodology

Introduction

In order to provide support to the relevant literature about pronunciation instruction and problematic areas of pronunciation for foreign language learners, Chapter 3 illustrates the complete data collection process of this study involving a detailed description of the participants, research setting, materials, data collection and analysis process. In this study, it was aimed to investigate the problems and difficulties that EFL students have as well as their attitudes toward pronunciation and the efficacy of pronunciation instruction. Starting with the presentation of the research design of the study conducted, the chapter continues with data concerning the participants and the research setting. After presenting the data collection tools and data collection process, the chapter concludes with the presentation of data analysis procedures in its final section.

Research Design

The literature review of the studies based upon the similar research questions was analyzed and it was observed that most of the studies were carried out using quantitative research design. However, the purpose of this study was to gain a deeper understanding of the issues regarding pronunciation, Therefore, a mixed method approach was deemed to be the best way to answer the research questions since this study not only deals with numbers, ages, gender or other statistical aspects but also seeks to explore patterns, feelings, and effects of pronunciation instruction and the developmental process of students in terms of English pronunciation. Recently, the combination of quantitative and qualitative data through mixed method research has begun to be used more in social sciences thereby in educational and in applied linguistic research (Zamora, 2015).

Mixed method design is used when the researcher wants to benefit from the strengths of both quantitative and qualitative data in addition to compensation of the weaknesses of both types of research (Abowitz & Toole, 2009; Creswell, 2014; Johnson & Onwuegbuzie, 2004, Östlund, Kidd, Wengström, & Rowa-Dewar, 2011). In addition, mixed method design is beneficial to examine different research questions which provide the researcher with more comprehensible data in order to approach a phenomenon from different perspectives (Zamora, 2015). In this regard, mixed method research is considered to be the best method for

answering research questions of the present study as stated in Johnson and Onwuegbuzie (2004) who assert that the researchers should take all the characteristics of both types of research methods into consideration before deciding to use this type of research design. In this research design, both types of data are collected simultaneously.

Quantitative research designs can be classified into two major categories: experimental and non-experimental research designs. An experimental study was conducted in the quantitative portion of the present study because in experimental studies "researchers seek to test whether an educational practice or idea makes a difference for individuals" (Creswell, 2014). This study tried to determine the effect of pronunciation instruction (independent variable) on production skills (dependent variables) implementing an intervention. In other words, experimental design was the most appropriate way to identify a cause-effect relation. Experimental research designs are divided into two main groups: weak experimental research designs and strong experimental designs. One-group posttest-only design, one-group pretest-posttest design, the post-test only design with non-equivalent design, pretest-posttest control-group design, posttest-only control-group design, factorial designs and repeated-measures designare included in weak experimental designs (Johnson & Christensen, 2008). Weak experimental designs are also identified as quasi-experimental design.

Among types of quasi-experimental designs, one-group pretest-posttest design was used in this study. Although a lack of some type of comparison is considered as a negative factor, this design is widely used in educational research (Campbell & Stanley, 2015). This type of design is schematically diagramed as following:

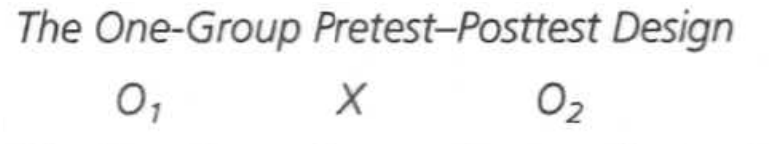


*Figure 4.*The one-group pre-test/post-test design.

A pretest (O1) is administered to a single group of participants before giving an experimental treatment condition (X). The posttest (O2) is then implemented. The difference between pretest and posttest is interpreted as an indicator of the effectiveness of treatment condition. The weakness of one-group pretest-posttest research design is that extraneous variables including history, maturation, instrumentation and regression artifacts may influence posttest results. As such, the difference between pretest and posttest may not be completely attributed to independent variable, which makes it a weak design. To minimize this weakness and potential threats, the researcher employed further data collection tools encompassing quantitative inventories and qualitative interviews.

Three steps were involved in this study. Firstly, the researcher administered a pretest in which one group of participants read a short reading passage and their performances were recorded in order to measure the improvement in production skills and comprehensibility (dependent variable). An experimental treatment focusing on segmental and suprasegmental aspects of English pronunciation was applied to the participants. As for the last step, a posttest, again measuring dependent variable, was administered using the same procedures as of pretest. Differences which were attributed to application of the experimental treatment were then interpreted comparing the pretest and posttest scores.

The quantitative portion of the study also consisted of a pronunciation attitude inventory which enabled researcher to obtain numerical data. In addition, the qualitative portion that involved semi-structured in-depth interviews was included in this study for the reason that the study needed participants' views obtained using their own words to support quantitative data. After collecting data, the findings gathered from the sources mentioned above were analyzed in order to interpret the data and draw conclusions about the findings.

Setting

The study was administered in the English Language Teaching Department at Atatürk University since there was not much research to understand the issues regarding pronunciation in this setting. This setting was expected to provide a better understanding of the issues in the study. The pronunciation instruction and the data collection phase concerning pre-service teachers' attitudes, feelings and future practices toward pronunciation as well as its teaching and their levels of English pronunciation and comprehensibility in their speech before and after the pronunciation treatment took place in the same setting.

Participants

The students.

107 undergraduate students participated in this study. Some of the students participated in all three parts of the study while most of them only participated in two parts. The students were enrolled in English language teaching department at Atatürk University. This department was selected since the students in this department were prospective teachers of English who have considerable enthusiasm to learn more and develop their linguistic competency in English. The participants ranging in from 18 to 20 were in the first year of their four-year degree program. The reason behind choosing these students as the participants of the present study in which pronunciation issue was investigated and discussed was that they may have had many pronunciation problems since they were EFL students and most of

the students did not receive pronunciation instruction in their past educational life. Therefore, this situation represented an opportunity to collect a considerable number of data to examine the efficacy of pronunciation instruction and the difficulties and problems the students have throughout pronunciation learning. Given the entry requirements for EFL departments, it can be considered that their proficiency levels in English were of upper-intermediate and pre-advanced level. It should be noted that in questionnaires related to the participants' attitudes toward pronunciation and in interview carried out to elicit their views about pronunciation instruction and difficulties they have, it was decided to use pseudonyms to comply with ethics in quantitative and qualitative research. Even if they had no special pronunciation training previously, they were expected to be interested in their pronunciation in English.

For the qualitative research, 6 participants out of 107 who participated in the quantitative research of this study were chosen for one-to-one interviews. These participants were asked whether they were willing to participate in the interviews or not, and they were chosen based on their pronunciation grades they received in pronunciation course provided by the researcher instructor. The selected 6 participants including two highly successful, two slightly successful and two unsuccessful students in pronunciation course they received were invited to conduct interviews at a time and place they preferred. This chosen sample of participants was considered to be a good representative of its target population.

Pronunciation instructor.

The students were taught phonological components of English by the researcher. At the time of the study, the researcher had been working for 9 years as an English lecturer in the school of Foreign Languages at Atatürk University and studying as a PhD student in EFL department at the same university. The researcher was determined as the instructor of pronunciation training course in order to observe the students' development and to be able to get completely involved in the study.

Raters.

The raters in this study were 2 native speakers of English. They were both males and from England. Native speakers were chosen as the raters because they were proficient speakers of English and were able to identify all the errors and phonological patterns articulated by the participants thoroughly. Both of the pronunciation raters of the current study volunteered to rate the pronunciation and comprehensibility of the assigned reading recordings. It is worthy to mention that the raters were not the factors under examination. They only were responsible for rating the reading aloud performances of the participants in

order to make the researcher evaluate the extent to which explicit pronunciation instruction improved pre-service language teachers' pronunciation skills and level of comprehensibility in their speech.

Data Collection Instruments

In order to collect data compatible with the purposes of the present study and to gain a better understanding of the research questions, it was decided to use three different types of data: inventory, semi-structured interviews, and recordings of students reading aloud from a text chosen. The instruments used in this study are individually described below.

Pronunciation attitude inventory.

With the aim of collecting quantitative data of the study about pre-service EFL teachers' attitudes toward pronunciation, "The Pronunciation Attitude Inventory" was implemented. The inventory originally developed by Elliott (1993) and adapted by Roccamo (2015) was the most commonly used data collection instrument in the studies investigating language learners' attitudes toward pronunciation of target language. The last two items of the inventory used by Roccamo were dropped out of the inventory used in the present study for the reasons that they were open-ended questions and thus the removal of these items would not influence the validity and reliability of the instrument. Furthermore, a qualitative research including a number of questions was already conducted in order to provide support for the results of the inventory in the present study. For these reasons, it was not needed to include the last two items in the inventory used in this study. The present inventory includes 13 statements about pronunciation and it was designed in the form of five-point Likert scale ranging from "always and almost always true of me" to "never and almost never true of me". The Pronunciation Attitude Inventory was provided in Appendix 1.

Semi-structured interview.

The qualitative data essential for a deeper understanding of the phonological issues were collected via interviews with the participants. By this way, the researcher would be able to ask open-ended questions to the participants in order to obtain richer information about their attitudes and feelings especially the changes in their attitudes and feelings after receiving pronunciation instruction and thereby it would be possible to provide support to the findings of the quantitative data of the study and to discuss their experiences and perceptions about pronunciation in general and pronunciation instruction they received. The data obtained from interviews were expected to provide insights into the pedagogical implications to be presented in the study.

Among the different types of interview, a semi-structured interview format was used in this study for the reason that researcher could introduce the topic and then guide the discussion asking additional questions based on the main questions. Dearnley (2005) states that the same questions within a flexible framework can be asked through semi-structured interviews. Therefore, the open nature of the questions can allow new concepts to emerge.

The interview was semi-structured with 6 basic questions and their sub-questions. The questions were about their perceptions toward pronunciation and its teaching, the aim and focus of pronunciation instruction from the perspectives of them and their problems and difficulties they encountered in English pronunciation. All the interview questions were provided in Appendix 2.

Reading aloud text.

Pronunciation ability was elicited by means of an oral task. A text was chosen for the reading exercise from the book "Inside Reading 2" (Zwier, 2007). The text chosen was "A Game of Checkers". The text was presented in Appendix 3. Since it was a very long reading passage and it would have been challenging for all the participants to read the whole passage and record it one by one, only two paragraphs from the text were included in the study. Although it is of an advanced language level and the students' proficiency levels in English pronunciation were estimated to be under that level, it was selected because its content was considered suitable to give each student the opportunity to articulate the problematic sounds for Turkish pre-service teachers of English and to use suprasegmental features. Therefore, letting the students read it aloud and record them while doing this activity would allow us to detect what pronunciation knowledge and problems they had.

Textbook for pronunciation instruction.

The teaching approach was centered on a student book entitled English Pronunciation in Use (Marks, 2007) which is suitable for both self-study and classroom use. This course book contains 5 sections from sounds and spelling through intonation in conversation. This course book was chosen for pronunciation instruction as it seemed to have been organized to enable teacher to teach basic segmental and suprasegmental rules of English with several examples that help learners practice each pronunciation pattern. The book chosen also offers explicit explanations about how to articulate the English sounds such as tongue position or lip rounding and exercises related to the explanations for more practice. Also, the book provides specific information as to key points to produce sound patterns.

The rubric.

A pronunciation rubric (Appendix 4) was used in order to assess learners' performances in reading aloud recordings obtained through pre-test and post-test. This rubric enabled the researcher to compare the differences between pre-test and post-test regarding their use of phonological forms at the segmental level and some of the suprasegmental features including intonation and stress as well as their comprehensibility and to evaluate the participants' development in English pronunciation after providing a pronunciation teaching course. Rubric is defined as "a one–or two–page document that describes varying levels of quality, from excellent to poor, for a specific assignment" (Reddy & Andrade, 2010, p.13). In order to clarify the purpose of using rubrics, Reddy and Andrade (2010) state that rubric can be utilized to give feedback on and to grade a number of student products including oral communication skills. Also, it was needed to use a rubric in the present study in order to evaluate and grade learners' pronunciation skills. According to Ma (2015), it is possible to mention many benefits of rubrics. One of them is that the rubric used makes the raters have similar understandings of the rating categories. In case of the absence of a rating rubric, the raters may evaluate the same speaking samples from different perspectives. In addition, the ratings in the rubrics have meanings, which means that each single rating provided by the raters represents a category described in the rubric. The third benefit stated by Ma (2015) is that using a rubric enables the researcher to analyze the ratings using Rasch modeling. Andrade (2000) clarifies that rubric can serve the goals of learning in addition to evaluation and accountability when they are used accurately. Given these reasons, the most appropriate way for evaluating pretest and posttest was to adapt a rubric.

In order to conduct the present study, the first step was to develop a functioning rubric which would enable the raters to generate ratings for pronunciation features and comprehensibility. In order to adapt a rubric suitable for the purposes of the current study, the relevant literature was examined and all the similar rubrics were found and evaluated in terms of the content, aim and categories they had. Taking the aims and research questions of the present study into consideration, a rubric was adapted using another rubric developed by Ma (2015). The original rubric developed by Ma (2015) possesses 6 categories including vowels, consonants, intonation, word-stress, rhythm and sentence stress. However, two categories- rhythm and sentence stress- were dropped out of the present rubric because only intonation and word-stress were taught in pronunciation classes and the other two prosodic features were not emphasized during the classes. Also, comprehensible speech was among the issues taken into account of and discussed in the present study and thus it was aimed at exploring whether

pronunciation instruction would improve the participants' comprehensibility. Therefore, the category of comprehensibility was added into the rubric as the fifth category. In order to ensure whether or not the rubric adapted as a first draft was appropriate to use in the study, a rubric assessment tool was developed. The pronunciation rubric assessment tool was provided in Appendix 5. In order to ask for their comments on the rubric adapted, pronunciation assessment tool was sent to 5 language instructors who were experts in their profession and had adequate knowledge of English pronunciation. They were informed about the aim of the study and asked to complete this tool. The language instructors gave feedback on the rubric. Among the instructors, there was a consensus about the rubric, which it was appropriate to be used in the study. The rubric adapted involved 5 categories including vowels, consonants, intonation, word-stress and comprehensibility.

In addition, in order to assess the participants' overall pronunciation quality and their improvement in components of pronunciation as well as comprehensibility, 5 point Likert scale from 1 to 5 was employed. On the rubric employed, 1 corresponded to poor phonological skills and low level of comprehensibility while 5 corresponded to proficient pronunciation skills and high level of comprehensibility.

Data Collection Procedure

In order to collect data, it was decided to use three different types of data: inventory, semi-structured interviews and recordings of students reading aloud from a text chosen to have a better understanding of the research questions. After conducting all the essential legal and ethical applications, the data collection procedure began. The first step, permission for all the phases of data collection process to carry out with the students in EFL department at Atatürk University was granted and data collection tools were approved by related departments. Before data collection process began, the participants were ensured that they participated voluntarily and the information provided would be kept confidential and would be used only for academic purposes, in addition, they could withdraw from it at any time. They were informed about the purposes of the study and how the information obtained would be used. Their names would not be revealed. Instead, pseudonyms would be used to protect their identities.

Quantitative data collection procedure.

Pre-test.

The first main data collection procedure was the test involving the recordings of students' reading aloud performances by the researcher. This test was administered twice as a

pre-test and post-test in order to collect data for measuring the changes in the participants' pronunciation abilities before and after the treatment and their problematic sounds. As a first step, a pretest was administered at the outset of the study in order to explore what participants' levels of the use of English pronunciation at the segmental and suprasegmental levels. The pre-test included items measuring the learners' level of pronunciation competence and comprehensibility.

Before pronunciation instruction began, the researcher set up times with each participant for individual pre-test recordings which lasted two weeks. All of the individual pre-tests took place in the same classroom and followed the same procedure. First, the researcher gave instructions on what the participants would do and the participant was given some time to get ready for reading the text. Then, the participants were presented two paragraphs extracted from a text mentioned above which included sounds that are considered difficult to articulate for Turkish learners of English based on the previous research about this issue allowing each participant to read the same text in the classroom one by one. All the recordings in the study were saved using a voice recorder. After that, the voice recorder was turned on and the students began to read the text after they said their names and surnames, which was required in order to compare the differences between their pre and post performances.

Pronunciation instruction process.

Before data collection could proceed, permission was sought from the English Language Teaching Department of Atatürk University. The administration of the department accepted this request and allowed the researcher to work with the first-year classes of the department for both giving pronunciation instruction and collecting data by means of inventory, pre-/post-tests and interviews. All of the students from first grade of the 4-year EFL education were involved in this study. The researcher began to give pronunciation instruction during 14 weeks in the fall term of 2016-2017 academic year. In the first class of the first week, students were informed about the content, aim and syllabus of the lesson. They were told what they would learn about English pronunciation and why they were included in this study. Before starting pronunciation instruction, the students were first instructed about the administration of pre-test and post-test to collect data in order to examine their development in English pronunciation by reading aloud two paragraphs from a text chosen for the study. During the first two weeks, they read the paragraphs aloud and their reading performances were recorded. All of 12 weeks remained were devoted to English pronunciation teaching using a pronunciation book and extra materials to support their

learning. The students received the total of 36 hours of pronunciation instruction each of which included 50-minutes pronunciation lesson starting in September 2016 and ending in December 2016.

The teaching syllabus included the teaching of segmental and suprasegmental features of English including the articulation of vowels and consonants as well as intonation and word-stress forms. Appendix 6 presents the detailed syllabus. The lessons focused on the correct articulation of English sounds by first listening and then trying to imitate on their own. After practicing the articulation of the sounds, they reinforced them by using these sounds within the words. The consonants and vowels that do not exist in Turkish language were especially emphasized in lessons and practiced more with extra materials and videos in order to enable students to articulate them correctly. The students were encouraged to practice English sounds correctly in and out of the classroom with additional exercises. After completing the teaching of segmental features, intonation and word-stress forms and rules were provided by instructor using the examples and exercises in the book chosen for the pronunciation teaching period. They had two exams including oral and written forms for their grading and at the end of the process, they were evaluated according to the grades they received. Almost all the participants could pass the exams while only a few failed. After the term was completed, the students participated in post-test in order to provide the researcher with the data required for her study.

Post-test.

A post-test was administered at the end of the study for all the participants. This post-test included the same phonetic items and the same passage to read used in the pre-test. It was administered in order to find out whether or not there were any differences regarding the students' pronunciation and comprehensibility levels between pre-test and post-test. After their first recordings, the passage was not practiced during the course of the instruction in order not to influence the results of the ratings. Immediately after the end of the instruction course, the students were invited to read same reading passage in order to compare their first and second reading aloud performances. The post-test recordings followed exactly the same procedures as the pre-test. After completing the recordings of the students' reading aloud for the post-test, the students were informed they would participate in a pronunciation attitude inventory.

Data collection through pronunciation attitude inventory.

The second main data collection procedure was the administration of Pronunciation Attitude Inventory to gather information about their attitudes toward pronunciation. The

administration of the inventory took place at the end of the semester in order to enable students to develop certain types of attitudes toward pronunciation during educational term. The participants were asked to read and respond the whole inventory in 15 minutes. After conducting questionnaires, 6 participants were selected to carry out interviews.

Rating procedure.

After the data collection phase was completed, the recorded samples gathered from the participants were rated by two raters who were the native speakers of English. During the rating process, a 5-point Likert type scale was employed. All the phases of the rating procedure were mentioned below in detail.

All the recordings involving pre-test and post-test were added to the pool of the recordings and these recordings were transferred from the voice recorder to the computer. Pre-tests and post-tests belonging to each single student were sent to a different file created for that student. After storing the reading samples on computers, the computer files and rating sheets were submitted to the raters in order to enable them to rate each recording in terms of all the categories included in the rubric.

The raters were informed about the rubric and what they would do when rating the recordings. They were told to first give a score for each category regarding segmental and two suprasegmental features of English phonology and then give a holistic score for participants' comprehensibility. Some of the recordings were dropped out since these recordings had some technical problems. Some students did not participate in either pretest or posttest. Likewise, there occurred some uncontrollable situations such as sudden noises in the outer environment like a motorbike or shouting people. Therefore, such problems as background buzz or the absence of some students in pretest or posttest led to the loss of essential data to listen and rate. After dropping out some of the recordings, the rest of the recordings which belonged to 89 participants were rated by the native speaker raters. After distributing the rating rubrics and recordings, the raters played the recordings one by one using their own laptops with external speakers and rated all the participants' pre-test and post-test performance one by one using the rubric. During the rating process, the raters took notes of the problematic sounds of the participants, which provided support for the results of qualitative data. After the raters completed their ratings, the researcher received all the rating sheets by hand.

Qualitative data collection.

The qualitative data were collected through interviewing the participants. Before the interviews began, participants were informed about the purpose of the interviews and how the

information gathered would be used. They were warranted that their participation was voluntary and they could withdraw from it at any time. They were also informed that the data obtained would only be used for academic purposes. Their names were not revealed and pseudonyms would be used instead in order to protect their identities. The researcher let them know that the results of the study would be shared with them if they asked. A consent form was presented and they were asked to sign two copies of the form after reading and showing no objection to the terms. Finally, they were also asked for their permission to tape-record the interview. The data collection for qualitative research was conducted by the investigator as in quantitative research. One to one interviews were decided to be more appropriate for the nature of the study. Therefore, the interviews were conducted with only one participant at a time. The day and time of the meetings with the participants were determined according to the participants' preferences.

During the interviews, the same questions within a flexible framework were asked to all participants. However, they were asked regardless of a defined ordering. The ordering of the questions was determined according to their responses. All participants were encouraged to explain their experiences and perceptions about pronunciation through open ended questions.

Data Analysis

Analysis of quantitative data.

Cronbach' Alpha reliability analysis was conducted in order to identify the reliability of the research instruments. The results revealed that Cronbach's Alpha reliability coeficient of the measurements obtained from the questionnaire was 0,78. In order to consider reliability coefficent to be acceptable, a desired critical alpha value should be 0,70 and above. (Cronbach, 1951). Regarding the value of 0.70 and above as the basis for a reliable instrument, it can be said that the measurements of this study is reliable. In the analysis of pre-/post-tests, percent agreement of two raters was calculated for inter-rater reliability. By this way, it was found that percent agreement is 88%. This means that the ratings of the raters are reliable.

SPSS 23 was used to analyze the data. The first step of the analysis was to check the assumption of the normality in order to determine which tests were to be used in the analysis. Kolmogorov-Smirnov test of normality was conducted to see whether each dependent variable was normally distributed and the results are presented in Table 1.

Table 1. *Results of Kolmogorov-Smirnov Test*

	Kolmogorov-Smirnov[a]		
	Statistic	Df	P
Inventory	,389	107	,372
Pre-test	.293	86	.277
Post-test	.275	86	.298

a. Liliefors Significance Correction

According to the table above, it was found that the data were normally distributed. As a result of the investigation conducted to test the normality of the data, it can be concluded that the normality assumptions were met for all of the variables. Therefore, parametric tests were conducted to analyze the data.

After identifying the normal distribution of the data, related to pre-service English language teachers' attitudes toward English pronunciation, mean and standard deviation values were presented. Reversed scoring was employed for the items 3, 9, and 13 in the questionnaire since they are negatively worded questions. In the process of interpreting mean, a scoring system was used in which the interval width of 1.00-1.80 showed "very low-strongly disagree", the 1.81-2.60 interval showed "low–disagree", the 2.61-3.40 interval showed "medium level-not sure", the 3.41-4.20 interval showed "high- agree", and the 4.21-5.00 interval showed "very high-strongly agree".

In order to identify the potential differences between or among the mean scores in the data set, Independent-Samples t-test and Paired Samples t-test were adopted. As for the analysis of variance and the homogeneity of the data set, Levene's Test was used as a precondition for parametric tests such as t-test. According to the results obtained by Levene's Test, it was found that variance of each independent variable was homogeneous. Independent Samples T-test was adopted to assess whether the means of two groups involving pre-service teachers are statistically different from each other. This is because Independent-Samples T-test is used to compare the values of two groups related to a continuous variable. (Pallant, 2005). 0,05 is accepted as the level of significance in the analysis of data.

The fourth research question posed was to examine whether or not the participants receiving pronunciation instruction involving segmental and suprasegmental features would improve phonological skills. The results for this question were determined by the ratings of the participants' pretests and posttests completed by two raters. In the process of the analysis of data, the researcher entered all the scores obtained from the raters into an EXCEL file. Using SPSS 23 to analyze the data, because of the purpose of this study, paired samples t-test which is a parametric test was adopted in order to examine if there was any change in the

students' pronunciation. Paired samples t-test should be performed on the ratings of pre-tests and post-tests of each participant because this type of statistical test compares the means of two repeated measures for statistical significance. Pronunciation instruction provided was the independent variable while improved comprehensibility, vowels, consonants, intonation and word stress were the dependent variables.

Analysis of semi-structured interviews.

The qualitative data gathered through one-on-one interviews were analyzed using content analysis. The analysis began right after the interviews were concluded. First of all, the researcher got familiar with the data by transcribing the recorded interviews verbatim. After transcribing the data, the transcripts were read carefully for many times by the researcher in order to get a sense of the whole. Compatible with the steps of content analysis offered by Creswell (2005), the next step was to cluster the similar topics so that the codes in the data were identified. After determining broader categories based on the codes identified, these categories were assembled together under 4 themes each of which described a general issue regarding the participants' perceptions and experiences about pronunciation teaching. The themes were presented in a narrative passage including the quotations from the transcripts such that the issues that were described and discussed could be illustrated.

Overview of the Study

The main purpose of the study was to investigate Turkish pre-service EFL teachers' problematic areas and difficulties in English pronunciation and their attitudes toward pronunciation. This research also sought to examine the efficacy of pronunciation instruction on EFL students. This chapter provides the results of the data collected and analyzed to address the following research questions:

1. What are the attitudes of pre-service teachers of English language toward pronunciation and pronunciation instruction?
2. What are the perspectives of pre-service EFL teachers regarding the aspects of pronunciation teaching?
3. What are the problems and difficulties of pre-service English language teachers in English pronunciation?
4. Does the pronunciation instruction result in improvements in the general quality of pre-service teachers' pronunciation at the segmental and suprasegmental levels and their comprehensibility?

5. What suggestions can be made based on the EFL pre-service teachers' phonological awareness and needs?

This study was carried out with 107 first-year students in the English Language Teaching Department at Atatürk University in Erzurum, Turkey with data being collected by means of a pronunciation inventory, semi-structured interviews and also pre-test and post-test administered in order to elicit students' pronunciation development. The data collection process involves the administration of inventory and interviews with the particular students chosen purposefully, and the recordings of participants' reading aloud a text with two paragraphs as a pre-test and post-test.

CHAPTER FOUR

Qualitative Results

Introduction

In this section, based on the interviews conducted with the pre-service teacher participants, the qualitative results are presented. The themes, categories and codes that were determined according to the data obtained from the interviewers are provided for the discussion of the research questions.

Qualitative Data Results from the Pre-service Teachers of English

The content analysis of the interviews with pre-service teachers of English revealed four main themes and each theme contains their own categories and codes. The themes were defined as “Perceptions of Pre-service Teachers of English toward L2 Pronunciation”, “Affective Issues about L2 Pronunciation”, “Teaching Aspects of Pronunciation Instruction” and “The Outcomes of the Intervention: Improved versus Insistent Aspects”. The interview questions which led to the codes, categories and themes are presented in Appendix 2.

Theme 1: Perceptions of pre-service teachers of English toward L2 Pronunciation.

This theme consists of the pre-service teachers’ perceptions toward their own pronunciation of English and pronunciation instruction of English language that are considered to be influential in their pronunciation improvement. Four categories are included in this theme which are defined as “L2 pronunciation background of pre-service teachers of English”, “the value of pronunciation in language teaching”, “learner characteristics” and “pronunciation from the perspective of pre-service teachers”. This theme was presented in the table below with its categories and codes.

Table 2.*Theme for Perceptions of Pre-service Teachers of English toward L2 Pronunciation*

Theme # 1 Perceptions of Pre-service Teachers of English toward L2 Pronunciation	
Category # 1 L2 Pronunciation Background of EFL pre-service teachers	Past experiences regarding pronunciation Teachers' attitudes toward pronunciation Place of pronunciation in language classrooms Teachers' pronunciation practices
Category # 2 The Value of Pronunciation	Communicative concerns Linguistic concerns Social concerns
Category # 3 Learner Characteristics	Age Language level Native language
Category # 4 Pronunciation from the Perspectives of EFL pre-service teachers	Perceptions Future applications and practices

The first category of the theme - L2 pronunciation background of EFL pre-service teachers- explains pre-service teachers' L2 pronunciation background. This category is connected to participants' past experiences regarding L2 pronunciation and the effects of their previous teachers' attitudes on their pronunciation progress and the importance given to pronunciation education in their educational background. The data on the pre-service teachers' past experiences regarding pronunciation teaching showed that language teachers in participants' educational background generally neglected pronunciation in language teaching and teachers' negative attitudes influence the participants' approaches toward pronunciation component of target language. Pertaining to the teachers' attitudes toward students, most of the participants asserted that when teachers display aggressive behaviors toward their students in language learning process, feelings of stress and anxiety arise in the learning setting. As an example to this situation, Interviewer-2 (I-2) expressed her thoughts with the following statements: "*Strict behaviors that are displayed by teachers increase the level of stress in the classroom and we have some teachers who demoralize us due to our pronunciation mistakes, which creates a tension among the students*". In contrast to the explanation of the participant mentioned above, Interviewer-4 (I-4) considered that his teachers' and classmates' negative attitudes do not affect him negatively referring that *'I am not negatively affected by my classmates 'attitudes toward my pronunciation and I only pay attention to my teachers' warnings in order to correct my pronunciation mistakes.'*

As regards teachers' practices pertaining pronunciation education, participants commented that most of their teachers often ignore pronunciation teaching in English

language teaching classrooms in primary, secondary and high schools even though participants regard pronunciation instruction as beneficial for their listening comprehension and oral communication skills. They continued referring to teachers' attitudes toward pronunciation that affected their performances in speaking activities and their attitudes toward pronunciation issue. In contrast to teachers who neglect pronunciation in language classes, I-2 stated that there were some teachers paying attention to pronunciation teaching and put her ideas into the following words:

> *I had a teacher of English language in secondary school and he was always emphasizing pronunciation aspects of English. He was also giving homework related to pronunciation and was doing exercises and activities including pronunciation patterns of English. He was really interested in English pronunciation.*

Regarding the same concern, Interviewer-3 (I-3) seemed to deal with teachers' attitudes and practices toward pronunciation asserting that teachers' positive attitudes influence students' phonological development positively and extended her discussion with teachers' practices connected to pronunciation and the lack of importance attached to pronunciation teaching in her educational background. She expressed her opinions about the importance of teachers' attitudes toward pronunciation with the following phrases:

> *Teachers' attitudes and practices definitely influence our professional development regarding pronunciation. The language education in high schools is only exam-based. Speaking and listening activities are not focused on. Language practitioners and teachers think that these skills should be taught at university. Therefore, Turkish learners of English language begin to attend university courses with a variety of deficiencies related to pronunciation. In this case, both learners' and teachers' attitudes toward pronunciation are crucial for pronunciation development.*

She also went on to discuss the same issue in terms of teachers' practices about teaching pronunciation together with the reason for teachers' ignorance of pronunciation aspect of language teaching as follows:

> *We were not aware of the fact that pronunciation plays a key role in language education because our teachers told us that we would learn pronunciation of English at our graduate education. Therefore, we never received a pronunciation instruction serving as an early education of pronunciation and learned what we know about pronunciation during our graduate education.*

Reflecting the view that past practices regarding pronunciation are essential parts of the educational background, Interviewer-1 (I-1) also mentioned this issue. She asserted that they were not enlightened in terms of pronunciation and its components. Also, her teachers never focused on pronunciation training during primary, secondary and high school education. Moreover, she commented that they had several speaking problems in English language as

well as the lack of linguistic knowledge related to suprasegmental features of pronunciation and continued referring that her pronunciation awareness increased at the beginning of her graduate education:

> *During my educational background, to tell the truth, pronunciation teaching was not included in English syllabus. Therefore, we didn't have any opportunities to learn English pronunciation. What is more, teachers regarded pronunciation as something trivial. In fact, I realized that pronunciation is not a trivial language component when I began my graduate education and my teachers were speaking without paying attention to correct pronunciation at the segmental and suprasegmental levels. However, explicit instruction that I received at university education increased my pronunciation awareness and I realized that pronunciation component is very significant and should not be neglected.*

Considering teachers' pronunciation knowledge, three participants dealt with teachers' pronunciation knowledge and the data based on their thoughts revealed that teachers' pronunciation knowledge serves as a model for students and contributes to the improvement of their pronunciation proficiency. Also, pronunciation knowledge of teachers and their use of correct pronunciation in the classroom have certain impacts on teachers' credibility. Some of the participants, therefore, focused on lack of teachers' pronunciation knowledge asserting that many teachers do not pronounce English at the segmental and suprasegmental levels, which results that students make the same phonological mistakes. Participants mentioned above believe that only their pronunciation instructors have enough knowledge about pronunciation while many other language instructors have some deficiencies regarding pronunciation. In other words, some language instructors both in high school and at university need more training of English pronunciation. In contrast to those who thought language teachers need more pronunciation training, Interviewer-5 (I-5) found most of his language instructors good at pronunciation although only a few teachers need more training of pronunciation. Referring to the negative effects of teachers' attitudes in regard with pronunciation, I-4 noted as the following:

> *Our pronunciation teachers are good at pronunciation, but some of the language teaching instructors have some deficiencies with respect to English pronunciation. However, they must be good at pronunciation. Even if they are responsible for teaching us different skills regarding English language, learning correct use of pronunciation is of vital importance for all pre-service teachers as well as me. What we learn from them is difficult to forget or correct. Therefore, we must learn each phonological rulecorrectly.*

Extending her thoughts with regard to teachers' pronunciation proficiency, she expressed her appreciation for her pronunciation teacher and suggested teacher training for teachers having pronunciation problems as following:

We were very pleased with our pronunciation instructor. I can still feel her contributions to my pronunciation competence while communicating with others. I can speak fluently thanks to the things that she taught us about pronunciation. She made us gain the ease of speaking more fluently and with fewer pronunciation mistakes. I think instructors should receive teacher training including pronunciation issues of English language. They might make mistakes from time to time. More practice and training regarding pronunciation is needed in order to reduce the pronunciation mistakes."

Approaching the issue from the perspective of affective impacts of teachers' pronunciation knowledge on their phonological development, I-3 believed that pronunciation instruction is needed for them since they will be language teachers in their future professional lives and exemplified what would happen in case of the lack of pronunciation instruction with the following phrases:

My English teacher's pronunciation of English in primary school was so bad that this made me have negative feelings and attitudes toward English language. Therefore, correct pronunciation is significant in order to make students focus on language classes better.

Some of the participants, despite not many in number, mentioned negative experiences they had during their educational background. All of the participants having a negative experience regarding pronunciation considered that their experiences influenced them negatively in terms of affective issues. For example, Interviewer-6 (I-6) shared her experience together with its impacts on her feelings with the following sentences:

Last year, while I was reading a text in a language lesson, I pronounced a word inaccurately and the instructor showed an exaggerated response to my mistake. I felt humiliated and ashamed. The instructor's response reduced my self-confidence and then I began to make more mistakes.

I-1approached the issue from a different point of view referring that learners acquire phonological aspects inaccurately, and it becomes difficult to correct these mistakes. She exemplified this situation with a past experience of hers stating that: "*When I began to attend pronunciation courses, in one of the earlier classes, I pronounced the word "three" as "tree" and I felt ashamed, but, then practicing a lot, I managed to learn and use the correct pronunciation of the word "three*". The last experience regarding pronunciation was presented by I-2, which made student feel embarrassed. The participant sharing her experience uttered the following statements:

While I was working at a university as aresearch assistant, another instructor who was older than me was the invigilator in the examination that I administered and I wanted him to take an exam paper to a student. He perceived this as something bad and he warned me not to use "take" as the verb for this case. Instead, according to him, I should have used "bring". When I pronounced "bring", he, again, said to me that I used nasal sound at the end of this verb inaccurately. His aim was to make me feel humiliated. As

in this situation, some teachers at the faculty are always laughing at us when we mispronounce and make us feel humiliated.

As for the second category of the first theme, it is defined as "the value of pronunciation in language teaching" addressing how the participants perceive pronunciation in language teaching and through the analysis of the data, three overarching codes were established with respect to participants' perceptions of pronunciation skills and their opinions about learning pronunciation in language teaching. Even if the students were advanced EFL learners, most of the students had never received phonological instruction before. That is why the study was carried out in an introductory-level course in which the development of L2 pronunciation skills was encouraged and it was significant to understand students' perceptions toward pronunciation.

Based on the data obtained from the participants, there appeared many concerns regarding the value of pronunciation in language teaching. One of them is communicative concern that most of the participants dealt with. The effects of pronunciation on communication had been the subject of considerable debate and the participants focused on fluency rather than accuracy for the development of speaking skills. They found the components of pronunciation useful and important for communicative concerns. In other words, the participants considered pronunciation to be more important for effective communication than some other L2 skills such as grammar or vocabulary. Emphasizing this issue,I-3 pointed to the affective aspects of efficient communication, and the impacts of pronunciation on communicative skills. In her own words:

In my opinion, pronunciation is important for many reasons in terms of communication. For example, when we communicate with people from different countries, we become anxious while speaking. Yet, if we learn how to pronounce the words accurately in the target language, we can become more self-confident and communicate with foreign people better. Otherwise, if we do not know how to pronounce the words, we will have difficulty in speaking. In addition to this, when teachers teach pronunciation to their students, they contribute to their own linguistic competence as well.

The data obtained from I-4 showed parallelism with the participant' perceptions mentioned above about language learners' being more intelligible in English language in order to receive and convey the messages between the speakers and the listeners. He claimed that pronunciation is needed for language learners not only as a speaker but also as a listener for the reason that they both should be able to understand what the speaker say and should be intelligible when conveying the message to another listener. The participant, on the other hand, referred the affective aspect of pronunciation teaching and stated that knowledge of L2 pronunciation increases learners' self-confidence and they can speak more fluently since they

are aware of their pronunciation capabilities. His remarks can be presented with his own words:

> *Pronunciation is important in language teaching and learning. Because learners want to learn a new language in order to be able to speak in that language. It would be nonsense if they used phonological patterns inaccurately. Pronunciation is crucial for both listeners and speakers since they should understand each other correctly when they speak. Also, people who are aware of the fact that they know accurate pronunciation have more self-confidence. On the other hand, those who have the lack of pronunciation knowledge may avoid speaking with other language users.*

Similarly, I-1 placed great emphasis on communicative concerns and intelligibility explaining her opinions with the following sentences:

> It is true that good pronunciation has a big role in language teaching. I think one of the factors that makes pronunciation important is communicative concern. All of us want to be understood by others, and if we pronounce correctly, we are able to communicate with other people more successfully. Good pronunciation increases our intelligibility, and it also affects the way we speak because sometimes we can judge people by the way they speak, so bad pronunciation will not be understood, even if our grammar knowledge is perfect."

Only one participant out of six stated that pronunciation is not indispensable for communicative concerns. The existence of different dialects of English language all around the world paves the way for considering that there is not only one accurate and applicable way to use English. Therefore, she claimed it would be pointless to impose only certain patterns of English pronunciation in a world where millions of people use different dialects of English as a second language. Even if people do not have enough pronunciation knowledge, they can communicate intelligibly. According to her, the language presented in language teaching classrooms must be as authentic as possible. However, she emphasized the importance of pronunciation as a need both for pre-service teachers, and as part of ongoing linguistic development courses. I-2 presented her ideas as following:

> I think pronunciation is more significant for beginner learners. When the students grasp the logic of pronunciation basically, it will be easier to learn more complicated patterns and rules. Though, I do not think it is significant in terms of communicative concerns as there are many Englishes around the world and we still understand each other. However, of course, it is important in terms of linguistic knowledge. The more we know, as pre-service teachers, the more confident we are to teach."

Similarly, the relationship between language and society was emphasized by one of the participants. He pointed out that accent is an important marker of social belonging since speakers of a language want to belong to a social group. Also, pronunciation may shape individuals' identities to a certain degree. Those with a native accent can get respect from

other speakers of target language. This means that people can be judged in terms of their pronunciation and speaking skills in a society. Considering this point of view, the participant perceived pronunciation as a crucial element for social belonging and people with foreign accent may have social and psychological problems and difficulties. Associating pronunciation with social and professional life, I-5 expressed his thought in following sentences:

> *Good pronunciation provides intelligibility, which means that even if students have good speaking skills, they may not be intelligible due to their inaccurate pronunciation. These students might have difficulties in their social and professional lives. Among the problems they will encounter are social isolation, deprivation of good jobs and educational opportunities. Also, they are judged according to their speaking styles in society. Therefore, they are regarded as uneducated and unskillful.*

In summary, the data outlined above showed that almost all participants established a relationship between pronunciation and communication. They focused on the communicative aspect of language learning process and believed that pronunciation could increase intelligibility among language users and communication would be more efficient with the contributions of pronunciation education.

The third category is pertaining to the learner characteristics and their relationship with pronunciation learning and teaching. Generally, the participants regarded learner characteristics as major, if not the primary, factors determining success in pronunciation learning. Age, language level, and learners' native language were some of them mentioned by the participants. Regarding the relationship between age and pronunciation attainment, some of the participants considered that the period roughly between 2 and puberty is critical for the acquisition of pronunciation. That is why learners who are over the age of puberty can no longer successfully and completely acquire L2 pronunciation. In other words, if the first exposure to target language is not very early, language learners are impossible to attain a nativelike accent. As an example, I-2 referred that:

> *Some people are natural when it comes to pronunciation. They are simply better imitators. Also, the age factor is also very important as children are better learners than adults. Therefore, a pronunciation class should take all these factors into consideration.*

It seems that teachers or language practitioners should account for age-related differences in developing pronunciation teaching practices and tools. Because adult learners and young learners have different kinds of brain functions and they are able to perceive pronunciation aspects via the practices and techniques appropriate for their ages.

I-4 approached the age-related issues from the perspective of the difficulties regarding the correction of mispronounced words or mistakes relevant to linguistic patterns that were taught in childhood. He believed that it would be more difficult to teach pronunciation to adult learners since they may have learned phonological rules or patterns inaccurately in their puberty period and the mispronunciations of the words might be imbedded in their subconscious. Therefore, it requires more time to correct these stereotyped mistakes. On the other hand, it is easier to teach pronunciation to those who have never received phonological instruction before. That is why young learners are likely to become highly proficient, even nativelike speakers of target languages. The participant mentioned above argued that:

> *It is more challenging to provide pronunciation training to the adult learners, especially provided that they received language education before. If those learners learned pronunciation inaccurately and are using some patterns or words incorrectly, it might take a lot of time to correct these mistakes. Young learners, on the other hand, are easier to teach phonological aspects of English language since they will learn phonological knowledge for the first time.*

Emphasizing critical period for pronunciation learning, I-6 maintained the same belief as I-4 claiming that since students in primary or secondary schools are in the critical period for attaining a relatively high mastery of English pronunciation, pronunciation instruction should be integrated into other language teaching courses more than usual. In this way, it is possible to provide students with a strong pronunciation background. Also, the practices, methods or tools determined for pronunciation instruction must be differentiated accounting for learner characteristics. Taking this issues into consideration, the participant, after shedding further light on age-related factors in pronunciation teaching, concentrated on the importance of pronunciation for young learners:

> *Even if pronunciation teaching is based on certain fundamentals, learner characteristics play a significant part. Language levels and ages of the learners are important factors. Nowadays, English language instruction is also given to the first grade students even to kindergartners. Yet, type of instruction provided for learners in primary schools and those who are older should be different from each other since their learning skills are different. I believe that young learners are in critical period when they can acquire a second language attaining native-like competence. Therefore, pronunciation instruction must be emphasized at that age and students must be provided a strong pronunciation background.*

Referring to the loss of neural plasticity at the onset of puberty, I-5 also said that such a kind of loss may be the reason for incomplete pronunciation attainment of late second or foreign language learners. Those who begin to learn second language pronunciation before ending of the critical period are likely to attain complete mastery of a language. Adult learners, however, can acquire certain phonological patterns, but not to extend of acquiring a

native-like competence. The participant explained his views on this point with the following statements:

> *It is essential to learn pronunciation at a very early age. Adult learners have difficulties in attaining native-like pronunciation. Neurological period ends around at the age of puberty and it is too late for them to achieve a complete success. They can just learn certain aspects of pronunciation. They cannot attain native-like accent. Therefore, critical period until age 12 is significant for nativelike levels in language and thereby pronunciation learning.*

Some students, on the other hand, claimed that adult learner can attain native-like accuracy in L2 pronunciation. In contrast to those who believed young learners are better learners of pronunciation than adults, they considered young learners may have some difficulties in articulation certain words or patterns. I-3 claimed that age is a significant factor in pronunciation learning as well as other learner characteristics such as personality or language level. She also addressed the differences regarding the success in pronunciation learning among students with high and low levels of language attainment. According to her, pronunciation courses should be programmed paying attention to these differences. Pointing to the parallelism between pronunciation achievement and learner characteristics, she stated as follows:

> *Learner characteristics and pronunciation achievement are parallel with each other. For example, if a learner has a self-confident character, he/she tends to learn pronunciation and speak a language better. A student's age is important also. For instance, a five-year-old child may not pronounce some difficult words, especially the ones with many syllables. Also, the level of a student also significant, the difference between low-levelled and high-levelled students should be determined and pronunciation should be taught by this way.*

Likewise, learner characteristics especially age was regarded by I-1 as an effective factor on pronunciation attainment. Evaluating learner differences in pronunciation teaching process, instructors should take into account of these factors when they prepare pronunciation syllabus or teaching practices. Age-related factors were reflected by the participant who commented that young learners may not acquire some components of English pronunciation such as phonetic alphabet and the articulation of multisyllabic words. As for language instructors of advanced adult learners, on the other hand, they can begin with the key issues of pronunciation and progress toward more complex structures. The participant put her ideas into the following sentences:

> *The content of pronunciation instruction given to language learners changes according to learners' language levels, age, needs and skills and these factors influence pronunciation improvement. For example, for a teacher in the primary school, it may be more difficult to teach phonetic alphabet to young learners. Because young learners may have difficulty in understanding phonetic issues. They can only teach the articulation of simple words and make*

students pronounce the simple words correctly. Their pronunciation can be written on the board in the way that they are read and make them practice. If you are an instructor at graduate level on the other hand pronunciation instruction will be more comprehensive. You can move beyond key issues toward higher levels of pronunciation. Adult learners can attain great success provided that pronunciation instruction is given appropriately and efficiently.

Another possible factor, which seems plausibly to have impacts on the attainment of full pronunciation competence is the phonological structure of learners' mother tongue according to I-4. The data revealed that L1 factor is influential for development of nativelike accuracy of foreign language pronunciation. The participant exemplified this point comparing the sound systems of Turkish and English languages. He addressed this point stating that:

For example, it might be difficult to articulate 'th'sounds in English language for Turkish students. Because 'th' sounds do not exist in Turkish language. Therefore, students may have difficulty in learning the articulation of some English sounds absent in Turkish language and this situation lead to the extension of the time spent for pronunciation learning. A Spanish learner, on the other hand, can learn these sounds easily because these sounds are also used in his/her first language.

The general outline of this category provides possible factors regarding learner characteristics and their effects on nativelike pronunciation attainment. The most frequently mentioned factor was age and the differences between young and adult learners. While some participants considered that young learners are better at attaining native accent than adult late language learners, other participants stated that adult learners find some aspects of pronunciation easier to learn. Critical period during which it is possible to acquire L2 to nativelike levels was suggested by some participants. Also, issues regarding language levels and L1 were emphasized by participants.

In the third category of theme defined as learner characteristics, the relationship between language learners' characteristics and pronunciation achievement was dealt with. As to the fourth category, pronunciation was investigated from the perspectives of pre-service teachers. This category addresses pre-service teachers' future applications and intentions regarding pronunciation teaching. Generally, the participants as pre-service teachers have positive attitudes toward pronunciation teaching and expressed that they would include pronunciation instruction in their language education practices in the future. Regarding the value of pronunciation teaching from the perspective of pre-service teachers, I-6 mentioned the importance of pronunciation referring to her past experiences in the following sentences:

Perhaps, the most important aspect… Because, when I began to attend teacher education at graduate level, I had a lot of problems, in fact this stemmed from my previous teachers. There were many mispronounced words taught to me. When I learned correct use of those words at university, I got shocked since I

realized that my old teachers taught me completely inaccurate pronunciation. Sometimes, I was laughed at when I tried to pronounce correctly. That is why, I think pronunciation is very significant since I had many problems with it.

I-1 uttered a similar comment related to the importance of pronunciation and emphasized the effects of teachers' pronunciation knowledge on their students based on her own experiences. She maintained that:

As a pre-service teacher, pronunciation instruction is extremely important. Based on my own experiences, I can understand to what extend correct pronunciation influence language education. For example, when a language teacher doesn't have accurate pronunciation, students' interests and attitudes toward language courses change in every respect. This impact, of course, can be negative or positive. Making an inference based on these experiences, when I become a language teacher, I am planning to give pronunciation instruction to my students.

The data revealed that segmental and suprasegmental aspects of English language are among the most salient linguistic dimensions utilized by speakers to interact effectively. In other words, pronunciation competence plays a part in effective interaction as well as grammar or vocabulary. Also, this aspect gains more importance if the instruction given to students is speaking-based. Another issue that adds more value to pronunciation component is associated with psychological development of students. This means that pronunciation can reflect self-confidence and lack of pronunciation can disrupt communication, which leads to annoyance and anxiety. For all these reasons, pronunciation is worthy of serious consideration according to the remarks of I-4:

I think that pronunciation is the most crucial component in the language learning process. If pronunciation is not correct in target language, extensive grammatical and vocabulary knowledge is not enough to communicate efficiently because mispronunciation may cause distraction and miscommunication. The development of speaking skills must be the main goal of language teaching for the reason that when we come together with foreign people, we will not communicate by writing. The better pronunciation we have, the more intelligible we will be. When we learn correct pronunciation of target language, our self-confidence increase and we can speak fluently in real life. Therefore, I will pay great attention to pronunciation of my students because in the forthcoming years it might be very difficult to correct mispronounced words that are acquired at the beginning.

Likewise, I-3 directly mentioned self-confidence stating a majority of students have lack of self-confidence due to their language teachers. Therefore, they should be more careful towards their students when they become an English teacher. Regarding this concern, sheuttered the following words:

Pronunciation education is essential. The way to teach it, however, is more important. A lot of students have problems regarding self-confidence because of the teachers who display negative attitudes. Positive attitudes of our

teachers encourage me to behave our own students well. That's why our teachers serve as models for us to be good language teachers.

She commented further about the reasons for the significance of pronunciation for pre-service teachers as follows:

As a pre service teacher, I think pronunciation is important in many ways but I will explain some of the important points for me. First of all, a language teacher should have enough skills about pronunciation and behave his/her students gently in case of making mistakes. Likewise, they must try to think of the best ways for better teaching and learning etc. Thanks to this, a teacher will have the opportunity to improve himself/herself as well.

Only I-2 did not attribute a top-line meaning to explicit pronunciation teaching in her future practices as a pre-service language teacher although she found pronunciation fundamental. She pointed out her preferences with respect to pronunciation teaching practices in the following short comment:

As stated above, to me, it is important yes, but not vital. I would try to teach it implicitly rather than as a separate class. I would try to expose my students to native dialogues so that they could learn by listening not by reading phonetic alphabets.

Apart from one participant, all of the other participants agreed upon the value of explicit instruction and noted they would focus on improving processes of pronunciation teaching in their future professions. Another point, on the other hand, is that their attitudes and future applications in their classrooms toward the goal of pronunciation instruction partially changed from strict and completely accurate pronunciation to more tolerant, successful communication in English language. For those who aim toward communication-based pronunciation instruction, pronunciation was regarded as a central aspect of face-to-face interaction and is responsible for intelligibility and comprehensibility. I-2 highlighted the importance of intelligibility-based pronunciation instruction by explaining with the following statements:

I do not think to be too strict about pronunciation teaching in my future profession. It is enough for the students to understand and to be understood. If the goal is to communicate, it is not necessary to be very strict. I would like to have native-like accent, to be able to speak as a native speaker, for example. I used to watch the same films for several times to be able to understand what they were saying. Yet, I don't think as pre-service teachers, we should emphasize correct pronunciation so much that students weary with pronunciation learning. For beginner learners, I pay attention to teach how they express themselves in real-life, when they go to a market, for example, they should be able to buy an apple or a pear. Their learning process can be supported using listening activities.

Related to the point of future applications, I-1 stated that she would prefer to teach pronunciation in every case. Regardless of students' language level, age and course content,

she would have a desire for pronunciation instruction. Supporting this viewpoint, she noted that:

> *It is not important what the learners' levels are, how old they are and what the content of the course is. I will convey pronunciation information in all cases and emphasize phonological patterns. Because I do not want my students to have phonological problems and difficulties in their future life. I will behaveknowing this fact all the time.*

Intelligibility seems to be a vital area emphasized also by the same participant mentioned above with the following phrases:

> *As a pre-service teacher, I am thinking of giving pronunciation focused education to my students. Mispronunciations cause miscommunications. A certain level of language proficiency is needed for efficient communication. Language instruction in which pronunciation issue is not included would be partially completed and non-functional. That is why, one of the key elements in language education is pronunciation teaching.*

Related to future applications mentioned by the participants, language education policy should move beyond grammar or vocabulary teaching and exam-focused language education to the educational policy including teaching pronunciation and speaking skills. In Turkey, a majority of language teachers still continue grammar and vocabulary-based language teaching and ignore communicative concerns. I-5 sharing this viewpoint explained his opinions as follows:

> *As a pre-service language teacher, I should have correct pronunciation in order to teach pronunciation aspects of language to my students. Pronunciation instruction is more important than grammar teaching. Recently, most of the teachers still continue teaching grammar. I do not mean grammar should be ignored, of course it should be taught, but it must not be the main aim. The reason is the lack of pronunciation and speaking. Briefly, pronunciation is indispensable.*

As mentioned above, this category briefly discusses that as pre-service teachers, participants' perspectives about pronunciation address the same points in language teaching. Their remarks appeared to have adequate knowledge of how to evaluate pre-service teachers' approaches toward pronunciation teaching. They, in general, considered pronunciation teaching as a necessity for intelligibility and improved speaking skills. While some of the participants believed that intelligibility was the most appropriate goal, other participants emphasized correct pronunciation practices.

Theme 2: Affective issues regarding pronunciation instruction.

The perceptions of the participants toward pronunciation teaching were discussed in the first theme. As for the second theme which is defined as affective issues regarding

pronunciation teaching, participants' feelings and affective dimension of pronunciation teaching process were examined. The categories that made up this theme were constructed by the comments of participants which dealt with affective factors that influence the way language learners learn pronunciation. The categories of this theme were described as positive feelings of pre-service teachers regarding pronunciation and negative feelings of pre-service teachers regarding pronunciation. The related codes, categories and theme were presented in the table below:

Table 3. *Theme for Teaching Aspects of Pronunciation Instruction*

Theme # Affective Issues Regarding Pronunciation	
	Self-confidence
Category # 1	Enthusiasm
Positive Feelings	Enjoyable
	Relaxing
Category #2	Anxiety
Negative Feelings	Worried
	Stress
	Fear of negative evaluation
	Embarrassment

The data obtained from the participants during the interviews revealed that the feelings of the language learners can also have an absolute influence on pronunciation achievement. The first category is related to the participants' positive feelings about pronunciation classes, which can affect language learners' pronunciation development positively. Those who have positive feelings toward pronunciation and its components may do better, particularly in effective communication and pronunciation-based courses. However, participants' responses revealed that some feelings change in second language pronunciation classrooms depending upon pronunciation components, teachers' or classmates' attitudes and classroom atmosphere. Self-confident people, normally, may have feelings of anxiety or those who have feelings of anxiety in L2 classrooms may be more self-confident when pronunciation is of concern for language learners. Some participants considered that this is because some teachers may have negative or positive attitudes toward students' mistakes or show an unpleasant or positive approach to pronunciation instruction. Participants' positive feelings can also be attributed to their pronunciation background. The participants stated that they are exposed to English language watching English films, listening to English songs and reading English books. These

activities influence their personal attitudes and feelings about pronunciation and make them attain pronunciation accuracy.

One of the widely discussed positive feeling is self-confidence. All of the participants regarded self-confidence as vital for pronunciation accuracy and fluent communication. According to the participants, self-confidence is correlated with pronunciation achievement. The data showed that pronunciation instruction led to the way to gain self-confidence for the participants who felt anxious regarding pronunciation. Self-confident learners, on the other hand, are more open to improvement with respect to pronunciation. This means that not only being self-confident has positive impacts on pronunciation development but also pronunciation instruction increases language learners' self-confidence. In other words, pronunciation training and self-confidence have mutual effect. Learners' self-confidence also seemed to be influenced by teachers' attitudes toward their mistakes.I-3 referred that if teachers are intolerant or anxious about students' mistakes, they may reflect these feelings onto the class and decrease self-confidence of learner. Referring to teachers' encouraging behaviors toward students, this participant explained her positive feelings she has regarding pronunciation as follows:

> *To be honest with you, in the first class of the university I was nervous, shy and unwilling to speak. Because that was the first time I spoke in English in front of people and learned what the term 'pronunciation'' is. But now, I feel more relax and speak more fluently in front of the class. In addition to this, if language instructors encourage students to study pronunciation more, students' self-confidence increases and they want to attend pronunciation classes more enthusiastically than before.*

In the same concern, I-1 emphasized that she has positive feelings regarding pronunciation component of English language. She stated that pronunciation-based course was one of the courses that she liked best thanks to her pronunciation instructors. Also, the data obtained from the participant revealed that she is really interested in pronunciation subject and highlights the importance of pronunciation education due to the fact that they always learn new things regarding pronunciation. Taking her statements into consideration in terms of the correlation of self-confidence with pronunciation education, it is possible to explain the situation in her words:

> *In fact, pronunciation instruction is one of the most enjoyable courses, that is why I like pronunciation very much. This is because of my pronunciation teachers and having a strong interest in pronunciation. Also, I want to have a native like accent. When I speak to a native speaker of English language, I am afraid of losing my self-confidence in the case of making pronunciation mistakes. Therefore, I find speaking and pronunciation classes important and meaningful. Every single day, we learn something new related to pronunciation of English language and we improve ourselves linguistically. Therefore, I*

attach great importance to this course. I feel myself very relaxed and self-confident in pronunciation teaching classes.

She also pointed out that she regards making pronunciation mistakes as inevitable. However, she feels happy because her teachers do not scold her, which influences her attitudes toward speaking and pronunciation classes and make her feel relaxed in these classrooms. She stated that students can attain success unless they suffer oppression and constraint in the classroom. Regarding the possible effects of teachers' attitudes on their feelings in speaking and pronunciation classes, she commented that:

Yes, sometimes, I am making mistakes; this is, in fact, something inevitable. Because, we make mistakes even when we speak in our mother tongue. When I make phonological mistake, I feel happy since my teachers are not angry with me and correct my mistakes without a negative reaction. In this sense, I was fully supported by them, which affected my attitudes toward speaking courses positively. I attained great success regarding English pronunciation since I learnt these aspects of language without suffering oppression and constraints by teachers.

I-4 focused on the reasons for being self-confident in pronunciation and speaking classrooms. The data shows that the participant has high level of self-confidence while speaking in English and in pronunciation classes. The reasons for this can be attributed to the fact that he does many listening activities in his daily life. He believes that before he received explicit pronunciation instruction, he spent too much time by doing some activities serving as examples of correct pronunciation of English. Therefore, he stated that he has an ease at communicating with other speakers of English language and he was good at English pronunciation before explicit instruction maintaining that:

Speaking courses are very enjoyable for me because I suppose that I am good at pronunciation since I read in English; I watch English movies and series and I listen to English songs a lot. I am highly self-confident in terms of speaking in English. Therefore, I do not feel anxious in speaking and pronunciation classes and I am not scared of making pronunciation mistakes. I feel myself very relaxed while expressing my thoughts in English. I was good at pronunciation before receiving explicit instruction although I just had a few problems with English pronunciation. Yet, I corrected them easily.

The second category included in the theme- affective issues in pronunciation instruction was defined negative feelings regarding pronunciation teaching. When asked about participants' feelings during pronunciation and speaking courses and possible reasons for them, almost all participants mentioned feeling worried and stressed, especially before receiving pronunciation instruction, referring directly to being evaluated negatively due to the mistakes they might make. I-6, for instance, stated that her anxiety seemed to arise from mispronunciations at the word-level rather than other aspects of pronunciation teaching. According to her, her anxiety arose since she was afraid of mispronouncing words which

might mean different words. This time, however, she needed to practice more to make her pronunciation accurate in each oral task and context. When she was aware of this fact, she focused on identification of her own phonological problems and she showed a positive attitude to work on her pronunciation problems. Her comment was as follows:

> *I was anxious about mispronouncing words while speaking in English. I had a fear of expressing something different from what I meant. As I learnt correct pronunciation at the segmental level, I began to gain more self-confidence. I can speak fluently feeling self-confident and relaxed. Previously, I could not speak in English since I avoided mispronouncing a word and I was feeling too much anxiety. I suppose I overcame this problem to a large extend.*

The data gathered from the participants showed that I-3 was a non-anxious speaker of language before she began to participate in pronunciation classes. Her remarks seemed to reveal that because of the pronunciation instruction she received, she began to have the feelings of anxiety and fear accompanying her pronunciation practice and their unfavorable impacts on her progress. Considering that her hesitation regarding pronunciation accuracy increased due to the fact that she learned segmental and prosodic features of English pronunciation, she stated that:

> *I am slightly anxious about pronunciation of English language. Because we are not native speakers of English language and cannot be as adult learners. This situation leads to a certain amount of pronunciation anxiety. It also creates a classroom atmosphere accompanying feeling of anxiety.*

The same participant continued commenting on affective issues regarding pronunciation by emphasizing that language teachers in Turkey maintain negative attitudes toward students and display insulting behaviors, which cause students to feel anxiety, shyness and embarrassment more than before. Taking teachers' attitudes and their effects on their psychological states into consideration, she explained that:

> *In Turkey, it is very stressful, because of the negative attitudes of some teachers, (excluding our own pronunciation instructor) as they laugh at you, criticize you brutally. But when the teacher and student interaction is good, I think these classes could be the most fun ones.*

The second theme provided a general outline of the affective issues in pronunciation education and speaking courses as expressed by the pre-service teachers of English. The theme involved two main categories: positive feelings positive feelings of pre-service teachers regarding pronunciation and negative feeling of pre-service teachers regarding pronunciation. The majority of participants emphasized the feelings of anxiety and self-confidence that influence their pronunciation and speaking success in English language. While some of the participants feel themselves very relaxed and self-confident in speaking classes, other participants noted that they feel apprehensive in specific situations and contexts. Not only the

articulation of phonological features such as consonants and vowels may be affected by the feeling of anxiety but also students may feel more anxious when they make phonological mistakes. In other words, feeling of anxiety and mispronunciations at the segmental level are interrelated. In the same concern, one of the participant referred that she feels anxious because when she makes phonological mistakes, she is afraid of being unintelligible. The data revealed that negative feelings may force students to avoid participating in listening and speaking activities. In addition, based on the remarks of the participants, they may feel shyer and more embarrassed while speaking, which leads to the lack of willingness to communicate.

Among the positive feelings of participants are self-confidence, enthusiasm, happiness and ease regarding speaking in English language. The participants who have positive feelings such as self-confidence and happiness stated that they like pronunciation and speaking classes and do not feel worried or apprehensive when they communicate with other speakers or during the language classes. Pointing out the importance of pronunciation accuracy for successful communication and increasing positive feelings, especially self-confidence, the participants considered that they feel more willing to communicate in English language if they learn the essential features of English pronunciation which provide intelligibility.

Another concern that the participants, almost all, referred was teachers' attitudes toward students and their positive or negative impacts on students' feelings toward speaking and pronunciation courses. The participants who feel anxiety when they speak in English language stated that their teachers discourage them if they make pronunciation mistakes in the classroom by laughing at them or criticizing severely. This leads them to have the feeling of fear of negative evaluation and abstain from participating speaking or communicative activities in the classroom. Those who have positive feelings, on the other hand, suggested that their self-confidence increased thanks to their pronunciation skills. Since they were supported by their teachers, they improved their pronunciation and speaking skills. Therefore, they make fewer pronunciation mistakes, which encourage them to be interested in English pronunciation and speaking skills.

Theme 3: Teaching aspects of pronunciation instruction.

Participants' feelings regarding pronunciation issues were discussed in the second theme. As to the third theme that was composed of three categories teaching aspects of pronunciation issue were described. The categories of this theme were defined as goals of pronunciation teaching, features of pronunciation instruction, and suggestions of pre-service teachers regarding pronunciation improvement. Below is presented the table of the theme with its categories and relevant codes.

Table 4. *Theme for Teaching Aspects of Pronunciation Instruction*

Theme # Teaching Aspects of Pronunciation Instruction	
Category # 1 Goals of Pronunciation Instruction	Intelligibility Nativeness
Category #2 Features of Pronunciation Instruction	Segmentals Suprasegmentals
Category # 3 Suggestions for Pronunciation Instruction	Explicit instruction Listening activities Imitation / Repetition Native speaker Practicing

The data obtained from the participants revealed a detailed examination of the nature of preferences of pre-service teachers related to pronunciation instruction. The first category of this theme includes the goals of pronunciation instruction from the participants' perspectives. The participants considered goals of pronunciation instruction to be of great importance in their language education. Some of the pre-service teachers emphasized that it is essential to sound like a native speaker for language teachers while they suggested that intelligibility is more significant than nativeness for effective communication. In other words, based on the participants' responses it can be said that they seemed to accept the significance of intelligibility to communicate effectively in English regardless of the accent being native-like or nonnative. However, three participants considered intelligibility should be the main goal of pronunciation teaching for their own language learning process as pre-service teachers while other participants stated that since they will be language teachers in the future, their pronunciation and speaking instructors should target a native accent for them. A clear statement from I-1 can be presented as an example for this point of view. The participant referred the necessity of attaining native-like accent for language teachers and continued her explanation with the reasons for this goal although she asserts that it is very difficult to attain a native or native-like accent. She expressed her thoughts on this point as the following:

> *Intelligibility is not enough for pre-service teachers. They should learn pronunciation with its all aspects and have correct pronunciation of English, which enable listeners to understand their thoughts, feelings and the message intended by the speakers. In fact, it is impossible to attain native-like accent because of the fact that when language learners want to speak in English, they first think in Turkish, then translate their thoughts into English. Therefore, it is very difficult to find the statement in target language which is completely equivalent to the statement in native language even if they have a good command of target language.*

Likewise, I-4 who agreed upon significance of being intelligible while speaking in a foreign language emphasized the importance of their own language teaching process as an English language teacher. Pointing out the deficiencies of language teachers regarding pronunciation knowledge, he stated that he would aim toward a native like accent in his teaching as a teacher of English language in the future. Referring to his previous teachers' lack of pronunciation knowledge, he explained that:

> *Since I will be an English teacher in the future, my students may do the same phonological errors that I do when I teach English. I am still trying to correct my pronunciation mistakes that my previous teachers taught me in high school. Therefore, we must learn English pronunciation like a native like speaker to teach correctly in the future although it is necessary to study and practice a lot in order to attain native-like accent. Age and past experiences influence pronunciation teaching and learning too much.*

Sharing the same ideas with the participant mentioned above, I-5 also considered the importance of attaining native like accent for pre service teachers. According to her, accurate pronunciation both makes speech intelligible and establishes rapport with listeners. Referring that he pays great attention to native accent since he desires to be an academician after graduation and he would like to appeal to university students, he expressed his ideas related to the goals of pronunciation instruction with the following statements:

> *As pre-service teachers, correct pronunciation is crucial and essential. We will never have problems and difficulties in speaking and communicating if we attain native like accent in English. Therefore, we can be intelligible to other speakers. Also, I would like to be an academician at university, that is why correct pronunciation is very significant for me and since I instruct university students, I should have native accent.*

In terms of the attainability of native-like accent, two participants can be considered to be faced with a dilemma between their pedagogic goal and attainability of a native-like accent since they mentioned that their goal of pronunciation instruction would be intelligibility in their teaching for the reason of acknowledging the difficulty of attaining a native-like accent and the necessity of being intelligible. Regarding this issue, a participant commented that English language teachers desire to have native-like accent which is not a utopic dream and is attainable with extra effort and practice. However, she continued her explanations with her beliefs regarding intelligibility and referred to the need for the goal toward being intelligible in pronunciation teaching. The same concern about the necessity of intelligibility in speaking is also explained by I-3 with the following phrases:

> *Attaining native accent in English language is very difficult whereas intelligibility is essential for interaction with other speakers. We do not need to learn pronunciation thoroughly as long as we are intelligible when we communicate with others. In the future, when I become an English teacher and*

> *my students do not pronounce words correctly, I will correct their pronunciation mistakes but will never be very severe in the way that I deal with those students or such problems.*

The general outline of the category- goals of pronunciation instruction- shows that there can be two aims of pronunciation instruction one of which is appropriate for the language teachers would aim toward a native-like accent in their teaching although it requires more practice. Another point of view regarding the category discussed demonstrates that intelligibility plays a significant part in pre-service teachers' pedagogical model of pronunciation.

The second category in this theme involves the descriptions of features of pronunciation instructions from the points of views of participants. In general, a suprasegmental-focused pronunciation instruction has received growing attention by participants asserting that prosodic features of pronunciation seem to be one of the key issues in language teaching. Participants claimed that intelligibility of utterances relies more on stress, intonation and rhythm than on segmental features of pronunciation. Five of the participants directly addressed the necessity for teaching suprasegmental features in order to enable language learners to be intelligible. In this respect, I-2 stated the significance of prosodic instruction in the following phrases:

> *To me, suprasegmental features are more important than segmentals. For example, even if we make mistake in articulation of a word, we can still be intelligible and can be understood by listeners. Yet, when we make a mistake related to intonation of a sentence, we might be unintelligible. Therefore, suprasegmental aspects play an important part in intelligibility.*

Likewise, I-3 put great emphasis on instruction of suprasegmental features for the reason that prosody is considered to be of major concern in expressing and conveying feelings to listeners of target language. She mentioned the importance of prosodic features of pronunciation as following:

> *Stress and intonation deserves attention rather than segmentals. Of course, correct pronunciation of words and correct articulation of sounds have great importance in language teaching. However, suprasegmental features are essential in order to express and convey feelings during interaction with other speakers of target language.*

Based on data obtained from one of the participants, the argument regarding features of pronunciation instruction appears. I-4 considered that it is important to decide whether word-level pronunciation or sentence/discourse level pronunciation should be aimed in pronunciation teaching. Regarding this issue, he stated that *"First of all, how the articulation is made is crucial in pronunciation teaching, but stress and intonation should be emphasized at the level of sentence or discourse."* In this respect, he asserted that segmental features

should be taught at word level aspects of foreign language sound system. Suprasegmental features, on the other hand, requires more attention if the main goal of instruction is to attain accuracy at sentence or discourse level. Therefore, the need for including such features as stress, intonation or rhythm depends on the choices made about at which level pronunciation would be taught. Teaching segmentals, on the contrary, is beneficial for the approach appealing to improve word-level accuracy.

I-1 also mentioned the need for placing more emphasis on suprasegmental features in pronunciation teaching, which is connected to the issue mentioned above. Pointing to this concern, she made the following statements:

> *I think suprasegmentals are of major importance and primary components of pronunciation instruction, therefore they have a crucial impact on speaking in English. Also prosodic features take precedence over segmental features even though they are interrelated.*

Referring to the pronunciation instruction they received, I-6 in the same manner, described the ultimate importance of suprasegmental by expressing her ideas as given below:

> *For me, stress and intonation is of crucial importance rather than segmental features in pronunciation teaching. It would have been difficult to learn prosodic features unless we had attained word-level accuracy at first. When we learned word-level accuracy, we went through the next phase with the instruction of suprasegmental features. I had a difficulty in learning those aspects of pronunciation in the beginning of the process, because we had never had such an instruction. However, with the activities of listening and practicing, I began to realize that suprasegmentals played an important part in pronunciation teaching.*

Addressing the significance of segmental features of pronunciation, just 1 out of 6 participants focused on the practice of segmental features of English in pronunciation teaching classes. I-5 asserted that segmental features have an important role in intelligibility and it would seem to be worse to make segmental mistakes even if suprasegmental features such as stress and intonation were used accurately at the sentence level. The participant mentioned above explained his opinions regarding how he applies for the features of segmental and suprasegmental features of English in language pronunciation teaching as follows:

> *My desire is to teach correct articulation of sounds and words at the word-level at first while in the next phases I pay more attention to teach stress and intonation of English language. Yet, segmental features should be placed more emphasis on than prosodic features for providing intelligibility. Being able to pronounce prosodic elements correctly will not provide intelligibility if we are not able to pronounce segmental sounds correctly. In other words, segmental features can be regarded as significant factors that influence intelligibility.*

Based on the comments provided by participants, it can be suggested that most of the participants emphasized the importance of suprasegmental features of English pronunciation whereas only one participants' future practices concentrate heavily on segmental features. Different emphases on segmental and suprasegmental features pertain to different perceptions regarding intelligibility. Participants who focus on prosodic features consider intelligibility is influenced by suprasegmental features rather than segmental features while only one participant put more emphasis on segmental features since, according to him, attainment of intelligibility could be attributed to word-level accuracy.

The importance attached to the features of pronunciation was presented in second category from the participants' perspective. As for the third category, the suggestions for successful pronunciation education were offered by the participants to overcome pronunciation difficulties and problems that language learners have regarding English pronunciation. This category includes the beliefs of the participants related to the ways of improving the efficacy of pronunciation teaching. The data provided by the participants presented several pronunciation teaching techniques which would help language learners attain accurate pronunciation. In issues of pronunciation teaching practices, most of the participants mentioned that they pay great attention to what they think to be the best ways of learning pronunciation accurately. According to one of the participants, for example, pronunciation instruction seems to be essential. However, the way to teach it should be taken into consideration more. This means that the participants generally believe that pronunciation teaching practices play a significant part in pronunciation accuracy.

Regarding this issue, the most frequently mentioned method to teach pronunciation is explicit instruction which was considered an essential way of developing pronunciation skill. They commented that pronunciation should be taught to language learners explicitly and suggested activities involving explicit teaching. Regarding explicit pronunciation teaching as an essential part of language courses, especially for pre-service language teachers, I-1 referred that "*Pronunciation cannot be learned without explicit instruction. It should certainly be taught in a language classroom explicitly*.". Similarly, I-6 expressed her views in this point that "I *think, it should absolutely be taught by a pronunciation instructor for the reason that it cannot be learnt on one's own without explicit instruction*." The lack of explicit teaching in language education programs can be a large part of the reason that language learners have a lack of pronunciation awareness. I-3 stated in this regard that: "*We had learnt some phonological aspects of English language, but my awareness regarding pronunciation increased after I received explicit instruction of pronunciation at ELT department*". The same

participant allocated responsibility of finding the best way to teach pronunciation to language teachers continuing as follow:

> *Teachers' contribution is the most important thing for me. Their attitudes towards students have an effect on shaping students' state of readiness. If a student is shy, the teacher should encourage him/her and should not be angry with the students because of their pronunciation mistakes. Teachers should find out about how to teach pronounce better.*

The participants, frequently emphasized the benefits of explicit instruction in terms of the acquisition of segmentals and suprasegmental features of English language. The data revealed that one of the most frequently mentioned outcome of explicit pronunciation teaching is listening comprehension. According to the participants, explicit pronunciation teaching seems to yield better improvements in understanding others' speech. Some of the participants considered that instruction focused on suprasegmentals also contributes to the development of listening comprehension as opposed to the instruction on segmental only. Therefore, the participants mentioned pronunciation activities including the features at the suprasegmental level.

In the light of the data obtained from the participants, several different ways can be presented such as listening and speaking activities, interacting with native speakers, and going abroad to practice all aspects of pronunciation features well. I-5 explained as regards to this issue as follows:

> *We learned a little pronunciation through English series and films. After receiving pronunciation instruction at university, my awareness regarding pronunciation issue raised. Pronunciation can be attained implicitly by speaking to native speakers of English. However, it is easier to learn phonological aspect of English language through pronunciation-based classroom activities. This can be reinforced with some practices outside classroom.*

I-4 emphasized explicit instruction for pronunciation attainment rather than learning implicitly noting that:

> *Pronunciation can be completely attained by improving the practice. First of all, explicit instruction is needed and then, achievements should be practiced. Taking classroom-based courses must be the first step. For example, I couldn't improve my pronunciation so much if I didn't get phonetic training.*

Only I-2 deemphasized the importance of explicit pronunciation instruction remarking as following:

> *As a pre-service teacher, when I become a teacher in a primary or secondary school, I would like to teach pronunciation. However, I do this implicitly, through listening activities, for instance. Because I learned many features of pronunciation by listening, especially when I lived abroad.*

The results also pointed out that components of classroom-based instruction may influence the efficacy of pronunciation instruction such as classroom size and language proficiency levels of students. With respect to this issue, I-6 remarked that "*In fact, more listening and practicing can be provided with explicit instruction. Better improvement can be ensured with small classroom size and with students having high level of language competence*". Also, pertaining to the best ways of teaching pronunciation, she emphasized listening for effective teaching process:

> *Just as people learn their mother tongue by just listening before they begin to speak, we can learn in the same way as well. Listening is of vital importance for correct pronunciation. I think, firstly, listening activities should be done in pronunciation classes. After that, teachers should teach certain rules of segmental and suprasegmental features. When students feel themselves ready, they should begin to use pronunciation aspects of language.*

Referring to the necessity of correct pronunciation for intelligibility, I-2 also put emphasis on listening activities as the best way to teach pronunciation. The participants' comment was as given below:

> *Listening, listening, listening! I attended an English course where they made students watch American series all day long, and after 3 months, they were very good speakers. What else can be done explicitly is just memorizing I think, and it never really works in a permanent way.*

Explicit instruction was also considered ideal teaching practice by I-1 in terms of increasing awareness and efficient communication. Therefore, it should be indispensable for language learners and pre service teachers. The participant regarded teachers' pronunciation knowledge and audiovisual and oral activities as vital for explicit pronunciation teaching. In addition, she complained that in Turkey, language teaching programs have several deficiencies and educational system in the country fails to satisfy the needs and expectations of students to acquire a foreign language. She explained her beliefs as follows:

> *First, pronunciation awareness should be increased, I think. It is ignored by a majority of teachers. However, in fact, it is a significant factor for effective communication. Explicit pronunciation training should be compulsory for language learners. As for pronunciation teachers, they must be well-trained teachers serving as models for students' correct and intelligible pronunciation development. Also, listening, reading and visual activities should be done in the classroom as well as the acquisition of phonetic alphabet of English language. Because the more senses are included in teaching process, the better progress students make. In this regard, education system has some deficiencies.*

Focusing on segmental and suprasegmental features of explicit pronunciation instruction, I-5 suggested that features at the segmental level should be taught before teaching suprasegmental features. Also, he referred that native speakers should be involved in

pronunciation teaching process in order to enable students to practice what they learn during pronunciation courses. His suggestions regarding pronunciation teaching were in this way:

> *Firstly, instruction at the segmental level is needed. Articulation of sounds and correct pronunciation of words should be taught. To do this, visual activities such as films or visual media in target language can be provided. By favor of these practices, students can not only improve their pronunciation but also correct their mistakes including stress and intonation. Also, native speakers can be invited to the pronunciation courses and create a setting in which students can practice pronunciation.*

Based on the results discussed in third theme, the comments that fell into the first category were basically related to the goals of pronunciation teaching that determine the content of the teaching process and techniques and practices to be used during teaching process. The participants stated that language teaching curriculums in Turkey generally neglect integrating pronunciation aspect of English language into language teaching syllabuses. Along with the inadequate language teaching syllabuses, language teachers similarly misguide the whole teaching process. Due to this fact, what the aims should be in pronunciation teaching was strongly emphasized by the participants. Particularly, two main aims underlined by the participants emerged. One of them is intelligibility which was regarded as key factor in pronunciation teaching while the other one was nativeness voiced as a crucial need for language teachers of English language. Teachers who are not qualified with enough pronunciation skills and do not have native-like accent cannot improve student' phonological proficiency.

Pre-service teachers, on the other hand, argued what features of pronunciation should be aimed to teach in pronunciation courses in the second category of the relevant theme. Some of the participants referred that they would teach segmental features-based pronunciation to their student in their future professional lives whereas other participants emphasized the importance of prosodic features for intelligibility and excellent speaking skills. According to these participants, intonation, stress and rhythm play a significant part in English language and therefore, these features should be emphasized in pronunciation teaching as well as segmental features.

Given the general outline of last category, some suggestions were presented based on the data obtained from the participants. Generally, they suggested explicit pronunciation instruction accompanied by audiovisual teaching practices such as listening, repeating and imitation activities. Exposure to native speakers was also suggested for effective teaching process while segmental features were given priority by some of the participants.

Theme 4: The outcomes of the pronunciation intervention: improved versus insistent aspects.

The outcomes of the pronunciation instruction given to the participants were evaluated in this theme. The theme involved two primary categories defined as "improved aspects of L2 pronunciation" and "problems and difficulties of students regarding L2 pronunciation". The general beliefs will be presented within the framework of these two categories. The table displaying the relevant theme along with its categories and codes will shed further light on the evaluation of this theme as a visual representation before providing explanations.

Table 5. Theme for the Outcomes of the Pronunciation Intervention: Improved versus Insistent Aspects

Theme # 4 The Outcomes of the Pronunciation Intervention: Improved versus Insistent Aspects	
Category # 1 Improved Aspects of L2 Pronunciation	Linguistic outcomes Psychological outcomes Pedagogical outcomes
Category # 2 Problems and Difficulties of Students Regarding L2 Pronunciation	English sounds non-existent in Turkish Stress Intonation Stereotyped mistakes

The data on the pre-service teachers' improvements regarding L2 pronunciation showed that the participants generally stated the positive effects of pronunciation instruction that they received. The most frequently mentioned effects of instruction were linguistic, psychological and pedagogic ones. Also, they are highly aware of the contributory nature of pronunciation instruction for their speaking skills. Considering the outcomes mentioned by the participants, they usually regarded pronunciation instruction as the vital component of language learning and teaching processes. For that reason, they expressed that pronunciation instruction should be incorporated into language teaching programs.

As for linguistic outcomes of the pronunciation intervention, only I-2 referred that she benefitted from instruction very slightly. Pronunciation instruction was not considered indispensable by this participant since she paid attention to intelligibility and stated that intelligibility can be provided without pronunciation instruction and different dialects of English language help people understand each other. She also viewed pronunciation teaching as a useless process for advanced L2 learners. Her reasoning was that adult learners have a language learning background and it is difficult to add new knowledge on it. She mentioned her pronunciation learning process as following:

> *I cannot say I didn't learn anything during pronunciation lessons. Yet, before receiving pronunciation instruction, I was pronouncing English correctly. My view regarding pronunciation instruction is that it can be more useful for beginner language learners. Those aged between 17-18 start studying at university and they have basic knowledge of target language. Therefore, teachers may find it difficult to put new things into students' existing knowledge. English language is an international language and has many different dialects. We can be intelligible no matter which dialect we use. For example, the word 'luck' can be understood even if we pronounce it luk instead of /lʌk/.*

However, she remarked the positive effects of pronunciation instruction on her development in terms of suprasegmental features of English language. She stated that "*In fact I learned stress and intonation during pronunciation instruction. Before receiving instruction, I had been using suprasegmental features accurately when speaking, but after pronunciation classes I learned these features theoretically.*" As regards the positive outcomes of pronunciation instruction linguistically, I-3 mentioned listening comprehension. Evaluating her own performance, she could have the chance of developing their listening comprehension. Her improvement, in turn, increased her self-confidence. This process was explained by the participant in the way that "*I improved my skills of listening comprehension. I can understand words better and as I understand better, my self-confidence increases*".

Likewise, I-6 evaluated her own linguistic development as inadequate before receiving pronunciation instruction. She referred that the whole language learning process might have knock-on effects due to an ignorance of phonological skills and extended her belief regarding development of phonological skills as crucial in the improvement of other language skills involving especially listening and speaking. She stressed the significance of pronunciation instruction for pedagogical aims as well as linguistic ones. This participant sharing these viewpoints uttered the following sentences:

> *In fact, I was very insufficient about pronunciation when I first started to attend pronunciation courses. I couldn't pronounce some words correctly although I wasn't aware of this fact. After pronunciation instruction, I believe I can speak fluently and efficiently. The instruction I received influenced my development positively. For instance, I can express my feelings and thoughts effectively when speaking in English language. I have learned word stress, which makes me speak fluently. That is why, for me pronunciation is a crucial factor. I will be an English teacher and I will speak to my students in English. I would like to be intelligible and speak with correct pronunciation.*

In addition, regarding segmental and suprasegmental features of English language, the participants, referred to their phonological development that both articulation of sounds and suprasegmental features such as intonation and stress were acquired. The participants seemed to assert a connection between pronunciation instruction and listening comprehension. In

addition, they mentioned the attainment of suprasegmental features which is likely to be more effective on the improvement of listening comprehension. Emphasizing the increase of the awareness regarding segmental and suprasegmental features, I-1 explained the outcomes of pronunciation instruction from her point of view:

> *In fact, I wasn't aware of the fact that I had some difficulties in understanding some words for example when listening to English songs and I didn't know this was due to the lack of phonological knowledge. After receiving instruction, I realized that the articulation of sounds, stress and intonation have certain rules. I found pronunciation easier than before receiving instruction. Also I understood the reason for my listening and speaking problems.*

Most of the participants claimed that they had never received pronunciation instruction before studying at this department. Therefore, they had low levels of pronunciation proficiency. I-4 stated that he is more careful about pronunciation now and gave an example regarding his own linguistic development providing a general comment on the overall effects of pronunciation instruction as follows:

> *After pronunciation treatment, I have been more careful. For example, I used to pronounce "3" as "tree" or I couldn't pronounce 'thank' with the correct articulation of "th" sound. After pronunciation instruction, I realized that I did not say many words with correct pronunciation. Now, I pay attention to say them correctly. I also realized there are many sounds in English which are absent in Turkish language. At first, I found it difficult to articulate these sounds. I began to improve my speaking skills via the instruction of word and sentence stress. Therefore, I trust myself better when I speak in the society. Even when other speakers' pronunciation mistakes grate on my ear, I want to correct their mistakes.*

Another crucial point investigated in this study was pre-service teachers' awareness of pronunciation which is one of the most frequently mentioned issues by the participants during the interviews conducted. The data shed more light on the increase in the level of participants' phonological awareness. According to all of the participants, the pronunciation instruction made them understand the functions of pronunciation components and they learnt what to concentrate on and what to build upon this awareness. Pertaining to the awareness pronunciation, I-3 emphasized that her awareness raised with explicit pronunciation instruction and made the following comment:

> *I first received pronunciation instruction at university. At the beginning, it was weird, difficult and different for me. I was shy, I was not self-confident but as time went by, I learned some basic points of pronunciation at the first class of university. Now, I am at the second class of university and there are many things about pronunciation I will learn. But, up to now, what I learned about pronunciation is on the point of pronunciation awareness.*

I-3 made similar comments stating that "*I didn't know such phonological issues as suprasegmental features and therefore I had speaking problems, but with the instruction I*

received, my awareness of suprasegmental features raised". Since pronunciation education raised students' phonological awareness, they began to pay attention to pronunciation more. For example, before attending language classes, they look up their dictionaries for correct pronunciation of words as well as practicing phonological patterns on their own. In this respect, I-5 considered that "*Of course I was not good at pronunciation before instruction. Then awareness of pronunciation raised and I began to study pronunciation on my own as well."*

Only I-2 approached the awareness-related issues from a different perspective. It seems that she didn't favor the effects of pronunciation instruction as much as other participants. She asserted that the knowledge of phonological system of English language made her more nervous than before although she was aware of the fact that as pre-service teachers, they are supposed to have a good level of pronunciation proficiency. In addition, she complained the importance given to native accent in Turkey since she believed intelligibility is more significant and fluent speech is needed rather than native-like accent. What follows provides this participant's opinions:

> *I was not aware of the fact that there is a phonetic alphabet. I am not sure whether I am glad that I am aware of it now, because both the stress of saying the words in a correct way and the stress of the importance given to pronunciation in Turkey (rather than for example, being fluent) makes me nervous. But I do understand that as prospective teachers we should be aware of the correct pronunciation, but also, we should realize that like other languages, English is a way of communication, it is not the ultimate purpose.*

The last concern that can be evaluated within this category based on the data obtained from the participants is psychological effects of pronunciation instruction. This category corresponds to the psychological effects of pronunciation instruction, which explains how participation in pronunciation instruction affected students' speaking skills and feelings toward pronunciation. Results presented in this category suggest that implementing pronunciation treatment influence students' feelings toward speaking in English language positively. The data revealed that some of the participants focused on making progress in second language oral production correlated with effective communication and increased fluency as their primary goals while other participants emphasized the importance of having accurate pronunciation as well as the changes in their feelings with explicit pronunciation instruction as pre-service English teachers.

Based on their perceived improvements they experienced, examples regarding their views about psychological changes they had can be presented in this category. I-3 for instance, stated that she was feeling anxiety when she read a reading passage and spoke in

English language before receiving pronunciation instruction. As she received instruction and due to the positive attitudes of her instructor, her anxiety decreased. The more her pronunciation skills improved the more her self-confidence increased. I-1 referred that she showed a dramatic change in her pronunciation and speaking skills. One of the salient changes was that she realized that she avoided speaking in English language in high school since she had lack of self-confidence and she felt pronunciation anxiety when she tried to pronounce words and articulate sounds. She continued commenting on effects of instruction on her feelings with the following words:

> *I experienced a great change on my feelings toward speaking and pronunciation skills. I became aware of the fact that I always avoided speaking during my high school education. I didn't trust myself to speak in English language, articulate sounds and pronounce words. Therefore, I had high level of anxiety. However, my feelings changed a lot positively after pronunciation treatment. I made progress to a large extend. After taking pronunciation courses, I feel more self-confident and relaxed. This influence me positively. I believe I can speak more fluently.*

She also suggested that pronunciation-related issues are responsible for making language teachers gain prestige. She emphasized the effects of good pronunciation skills on their respectability in their social and professional lives. Stressing the importance of being intelligible and social effects of pronunciation treatment, she further argued:

> *I think it is a significant criterion in our professional and social lives. Thanks to correct pronunciation, you can be respected by other speakers of target language. This influence their attitudes toward you. I am sure pronunciation education will contribute to my professional life in the future and will help me to communicate with people effectively as an English teacher.*

A general comment with respect to the perceived positive outcomes of pronunciation instruction on the participants professional and psychological lives was provided by I-6. She expressed her thoughts in the same way as other participants that she overcame the feelings of pronunciation and speaking anxiety and fear of being negatively evaluated by other speakers. Considering that pronunciation instruction can lead her to provide her students with beneficial language education in order to promote their speaking skills and to have positive attitudes toward pronunciation in the future. She also believed that she could interact with native speakers more efficiently since the instruction contributed to increase her self-confidence and decrease pronunciation anxiety. In her own words:

> *Pronunciation instruction provided several benefits. I don't think I can be a good language teacher with inaccurate pronunciation. I became aware of my mistakes and had the opportunity to correct them, in turn, I can speak confidently. It contributed to overcome my fears regarding foreign language. Also, I provided a basis for my language development. I can communicate with native speakers from now on.*

Based on the general review of first category of this theme, one can see that the perceived outcomes of pronunciation instruction were generally positive. The participants focused on different dimensions of pronunciation instruction such as professional, linguistic and affective issues. Almost all of the participants shared the viewpoint that pronunciation instruction is essential for their language development especially speaking and listening skills. Some of them emphasized ultimate attainment of pronunciation to be an English teacher. Other participants mentioned the contributions of explicit instruction on the development of intelligibility and comprehensibility, that is to say, communicative-based goals were their priorities. Speaking more fluently and improved listening comprehension are among the benefits of pronunciation instruction. Only one participant referred that she slightly benefited from explicit phonological instruction since she already had some knowledge of English pronunciation. However, she became aware of phonetic alphabet and the fact that suprasegmental features depend on certain rules. The participants also stated that they gained positive feelings toward speaking and pronunciation after phonological treatment. They believed they are more self-confident and feel less anxiety in language-related issues. Again, they believed the instruction they received promoted them to be aware of segmental and suprasegmental features of pronunciation and realized that they had lack of knowledge of these features. What was common among the participants was about the increase of phonological awareness. They referred that they were more careful when listening to other speakers even they can find their teachers' phonological mistakes. In addition, according to the participants' views, pronunciation treatment will make them gain prestige among other language users and provide them with more academic and professional opportunities.

The second category of the fourth theme is associated with the participants' difficulties and problematic areas regarding English pronunciation. Phonological distance between Turkish and English language cause many difficulties that Turkish language learners have to overcome. The distinction between these two languages results from English being stress-timed and Turkish being syllable-timed languages. Stress-timed languages have speech rhythm that is constituted by the regular interchange of stressed and unstressed syllables. Therefore, overall, the problems and difficulties met by Turkish learners of English language are due to the phonological differences between two languages. Based on the literature regarding this issue, it is possible to say that Turkish learners' problems are mostly related to the sounds which are absent in Turkish language at the segmental level and suprasegmental features such as intonation, stress and rhythm which are different phonological patterns from Turkish pronunciation.

As for the participants' difficulties and problems experienced during pronunciation learning process and in pronunciation-related course or contexts, at the segmental level, they generally stated that they had difficulties in English sounds which are not found in the participants' native language. For example, some consonants /ð/ and /θ/, and some vowels such as /æ/ and /ɑ/ do not exist in Turkish language and thereby Turkish students encounter phonological problems with these sounds and the words including these sounds, which leads to foreign accent. Therefore, they stated that their mother tongue may influence their pronunciation learning skills negatively in this respect. Considering the difficulties that she had to overcome in English pronunciation learning, I-2 provided an example that: "*The sounds that do not exist in our native language are difficult to articulate such as "th" sounds. Even if it is not very difficult to articulate these sounds alone, using them in words and to articulate with other sounds are very challenging*." Some other participants hold similar views as to the problems at the segmental level. I-3 expressed that "*I had difficulty in pronouncing the sounds which are absent in Turkish such as th sounds. However, they can be learnt with explicit instruction and correct articulation is possible if we practice a lot".* Similarly, I-5 complained the difficulty in articulation of the sounds which they do not use in their mother tongue and again he gave the example of "th" sounds. The most frequently and the first recalled sounds were /ð/ and /θ/, which were considered as the problematic issues in English pronunciation. Because, many students who had no pronunciation training background encountered these sounds in ELT department for the first time.

Another important issue regarding the differences of English pronunciation from Turkish language is that English language is a tonic and stress-timed language. Stressed syllables in English occur at more or less equal intervals of time. Therefore, Turkish learners generally find stress, intonation and rhythm difficult for the reason that they do not have a mother tongue with these features. These features at the suprasegmental level pose a problem for Turkish language since they cannot understand which syllables are stressed in a word or which parts of a sentence should be stressed. Also, intonation and rhythm are problematic for Turkish language learners. For some learners, speech rhythm leads to fossilized pronunciation errors. Those who cannot acquire these features accurately are exposed to have foreign accent, which may reduce the intelligibility and comprehensibility in communication.

I-6 referred that she found suprasegmental features more difficult than segmental ones and why she thought in this way. For the reason that suprasegmental features should be learnt in a context, it might be difficult to learn them in isolated words and sentences. Also, she put a great emphasis on the input which is sent by a native speaker. For her, suprasegmental

features must be acquired hearing from or practising with a native speaker. I-4, likewise, considered that prosodic features of English pronunciation are problematic in learning pronunciation as well as sounds which are non-existent in Turkish. Word stress was regarded as a challenging aspect of English pronunciation by especially one participant. He stated that

> *I have difficulty in articulating some sounds like "th" sounds even if they can be learnt and produced like a native speaker practicing as much as possible. Also, I got more confused when I learned word stress. I couldn't understand at first and I could not answer some questions including word stress in pronunciation exams.*

Not only have the problems and difficulties that stemmed from segmental and suprasegmental features of English explored in the data obtained from the participants, but pronunciation background-related problems and difficulties have also been the focus of some participants. Two participants stated that they had difficulty in learning correct pronunciation of some words which they learned inaccurately in their past education. Even if they did not receive explicit pronunciation instruction in language training background, their teachers were using language with inaccurate pronunciation since they had lack of phonological knowledge of English. This resulted in participants to be exposed to mispronounced sounds or words. I-4 asserted that he had some difficulties in learning accurate pronunciation of some words that they learnt to pronounce inaccurately in their past educational life and correcting these phonological mistakes required more effort and practice than other aspects of English pronunciation for him. Complaining their previous teachers who said that they would learn English pronunciation in their graduate education, I-3 explained this situation with examples as the following:

> *When we began to attend ELT department, we had some stereotyped pronunciation mistakes that were difficult to be corrected since they were imprinted in our memories. The word 'blood' for example…When I learned its correct pronunciation, it was needed to use it in different contexts. Even if I knew correct pronunciation of this word, sometimes I mispronounced when reading a passage or speaking in an activity. As I practiced more, I began to pronounce them correctly.*

I-6 encountered some problems corresponding to segmental features and listening comprehension-related issues. She stated that at first she could not articulate English sounds which are non-existent as phonemes or sounds in the sound system of Turkish language. Also, she had lack of listening comprehension. Therefore, she was supposed to study more in order to overcome these problems. In addition to difficulties including segmental and suprasegmental features of English language, she complained other aspects of pronunciation learning process such as classroom size and the lack of opportunities to practice more due to the crowded classrooms stating that

> *We didn't have any deficiencies regarding technology or our pronunciation instructor, but the situation that there were too many students in our pronunciation classrooms was standing in our way to practice a lot. It would have been better for us to practice more if there had been less students in pronunciation courses.*

Taking the second category, problems and difficulties of L2 pronunciation students, into account of, the data showed that pre-service participants referred to a number of problems and difficulties regarding pronunciation issue. The participants had common problems that they had to overcome in order to have better pronunciation skills. While at the segmental level, the sounds that do not exist in their native language were regarded as difficult sounds to produce, at the suprasegmental level, they generally found several features problematic such as word stress, intonation and rhythm. What was striking about the participants' suggestion to solve their phonological problems was that they all believed more practice could be effective to overcome their difficulties.

CHAPTER FIVE

Quantitative Results

Results of Pronunciation Attitude Inventory

The mean and standard deviation values related to pre-service English teachers' attitudes toward pronunciation are shown in Table 6.

Table 6.*Mean Scores and Standard Deviation Values related to Attitudes toward Pronunciation*

n= 107 **Items**	$\overline{X}$	**SS**
1. I'd like to sound as native as possible when speaking English.	3.98	.99
2. Acquiring proper pronunciation in English is important to me.	4.31	.85
3. I will never be able to speak English with a good accent.	4.12	1.12
4. I believe I can improve my pronunciation skills in English.	4.57	.75
5. I believe more emphasis should be given to proper pronunciation in class.	3.99	.90
6. One of my personal goals is to acquire proper pronunciation skills and preferably be able to pass as a near-native speaker of the language.	4.20	.97
7. I try to imitate English speakers as much as possible.	3.95	1.03
8. Communicating is much more important than sounding like a native speaker of English.	3.70	1.05
9. Good pronunciation skills in English are not as important as learning vocabulary and grammar.	3.79	1.43
10. I want to improve my accent when speaking English.	4.58	.81
11. I'm concerned with my progress in my pronunciation of English.	3.73	1.28
12. Sounding like a native speaker is very important to me.	4.26	.97
13. I do not practice a native-like accent in class because of how other students in class would perceive it.	3.32	1.21
Total	4.04	.55

* Reversed scoring was employed for the items 3, 9, and 13 in the questionnaire since they are negatively worded questions.

Table 6 shows that the items which received the highest mean scores are “I want to improve my accent when speaking English. ($\overline{X}$= 4,58), “I believe I can improve my pronunciation skills in English.” ($\overline{X}$=4,57), “Acquiring proper pronunciation in English is important to me.” ($\overline{X}$=4,31), “Sounding like a native speaker is very important to me.” ($\overline{X}$=4,26) and “One of my personal goals is to acquire proper pronunciation skills and preferably be able to pass as a near-native speaker of the language.” ($\overline{X}$= 4,20) respectively. The items that received the lowest mean scores are “I do not practice a native-like accent in class because of how other students in class would perceive it.” ($\overline{X}$= 3,32), “Communicating is much more important than sounding like a native speaker of English.” ($\overline{X}$=3,70), “Good pronunciation skills in English are not as important as learning vocabulary and grammar.” ($\overline{X}$=3,79), “I try to imitate English speakers as much as possible.” ($\overline{X}$=3,95) and “I believe more emphasis should be given to proper pronunciation in class.” ($\overline{X}$=3,99) respectively.

Pre-service teachers responded the items, “I want to improve my accent when speaking English.” ($\overline{X}$=4,58), “I believe I can improve my pronunciation skills in English.” ($\overline{X}$=4,57), “Acquiring proper pronunciation in English is important to me.” ($\overline{X}$=4,31), “Sounding like a native speaker is very important to me.” ($\overline{X}$=4,26) and “One of my personal goals is to acquire proper pronunciation skills and preferably be able to pass as a near-native speaker of the language.” ($\overline{X}$= 4,20) as “strongly agree” while they responded the items “I will never be able to speak English with a good accent.” ($\overline{X}$=4,12), “I believe more emphasis should be given to proper pronunciation in class.” ($\overline{X}$=3,99), “I’d like to sound as native as possible when speaking English.” ($\overline{X}$=3,98), “I try to imitate English speakers as much as possible.” ($\overline{X}$=3,95), “Good pronunciation skills in English are not as important as learning vocabulary and grammar.” ($\overline{X}$=3,79), “I’m concerned with my progress in my pronunciation of English.” ($\overline{X}$=3,73) and “Communicating is much more important than sounding like a native speaker of English.” ($\overline{X}$=3,70) as “agree”. Also the item “I do not practice a native-like accent in class because of how other students in class would perceive it.” ($\overline{X}$=3,32) was responded as “not sure” by pre-service teachers. When examined the mean score of all items, it can be seen that pre-service teachers responded all the items as “agree” ($\overline{X}$=4,04). Therefore, it is concluded that pre-service English teachers have positive attitudes toward pronunciation.

In order to investigate whether there is a significant difference between male and female pre-service teachers’ attitudes toward pronunciation, Independent Samples T-Test was conducted and the results were displayed in Table 7.

Table 7. T-Test Results Related To Attitudes toward Pronunciation According to Gender Variable

Gender	N	$\bar{X}$	SD	Df	T	p
Male	22	3.55	.62	103	-5.216	.000
Female	83	4.16	.45			

As can be seen in table 7, pre-service teachers 'attitudes toward pronunciation revealed a significant difference relevant to the gender variable ($t_{(103)}$=-5,216; p<0,05). Female pre-service teachers' attitudes are significantly more positive toward pronunciation than males.

Results of pre-/Post-Tests.

In this study, the fourth research question took into consideration whether a 14-week pronunciation training would improve pre-service language teachers' phonological skills and comprehensibility or not. Two raters used a 5-point scale to rate the participants' pronunciation at both segmental and suprasegmental levels. Paired Samples t-Test was performed in order to find out if there was a significant difference between pre-tests and post-tests scores of the EFL students. The results were shown in Table 8.

Table 8. Paired Samples t-test Results for Pronunciation Scores of the Pre-test and Post-test of Pre-service Teachers

Dimensions	Test	N	Mean	SD	Df	t	p
Vowels	Pre-test	86	2.25	.71	85	-12.397	.000
	Post-test	86	2.83	.65			
Consonants	Pre-test	86	2.29	.72	85	-11.684	.000
	Post-test	86	2.91	6.3			
Intonation	Pre-test	86	1.85	.70	85	-11.963	.000
	Post-test	86	2.42	.61			
Word Stress	Pre-test	86	2.09	.62	85	-12.142	.000
	Post-test	86	2.67	.59			
Comprehensibility	Pre-test	86	2.31	.74	85	-13.555	.000
	Post-test	86	3.01	.76			
Total	Pre-test	86	2.16	.61	85	-17.654	.000
	Post-test	86	2.77	.57			

According to the results shown in Table 8, the ratings of pre-service teachers' reading aloud performances in pre-tests and post-tests displayed a significant difference in overall mean of all the participants' pronunciation competency (t(total)=-17,654; p<0,05). This

means that after the pre-service language teachers received pronunciation instruction, they showed highly significant improvement in overall pronunciation skills.

Given the results of the categories of the rubric individually, the mean rating score of participants' pronunciation of vowels in pre-test was 2.25 whereas it was 2.83 in the post-test. As can be seen in Table 4, there is a statistically significant difference between the ratings of the vowels in pre-test and post-test (t(vowels)=-12,397; p<0,05), which means that pre-service language teachers improved significantly in articulation of vowels. Similarly, the results for the articulation of consonants indicated that there is a highly significant difference between pre-tests and post-tests (t(consonants)=-11,684; p<0,05), which points that the participants showed a highly significant improvement in consonant production.

As for the suprasegmental features, based on the results of the data, it can be said that pronunciation instruction contributed to the participants' phonological development to a large extent since the difference between the rating scores of pre-tests and post-tests regarding the use of intonation and word-stress was significantly high and the difference between scores for intonation and word-stress were t=-11,963; p<0,05 and t=-12,142; p<0,05 respectively. Considering these results, it can be seen that pre-service language teachers showed a significant improvement in producing intonation and word-stress patterns. The last category of the rubric was comprehensibility and the mean score of all participants' comprehensibility in pre-tests was 2.31 while the mean score of their comprehensibility in post-test was 3.01. In other words, the comprehensibility scores of the post-test increased compared to those of the pre-test. Likewise, the results revealed a significant difference for comprehensibility between pre-tests and post-test ratings (t(comprehensibility)=-13,555; p<0,05), which means that the pre-service English language teachers also improved their comprehensibility.

Based on the findings of the study, it can be revealed that pre-service language teachers showed highly significant improvement in overall dimension and each sub-dimension of the rubric evaluating learners' success in English pronunciation.

CHAPTER SIX

Discussion

In this section, discussions of some of the crucial results based on the qualitative and quantitative data are presented. In order to show differences and similarities, the discussion provided is in line with references to the related research carried out to investigate the same concerns. It was also aimed at contributing to the relevant literature and provide some pedagogical implications. Both qualitative and quantitative results are discussed altogether in order to make broader interpretations. Interpretations were made using the results presented in the data analysis according to the research questions of the study.

What are the Attitudes of Pre-service Teachers of English Language toward Pronunciation and Pronunciation Instruction?

The first research question of this study intended to find out how pre-service English language teachers at Atatürk University perceive English pronunciation and pronunciation training. Their awareness levels regarding pronunciation were also investigated in this study and it was aimed to discover how their awareness levels with respect to pronunciation issues are related to this research question.

The discussion of the qualitative and quantitative data which were gathered from the pre-service teachers of English language exhibited some shared points. Given the perceptions of the participants of this study regarding the importance of pronunciation and its teaching, it can be seen that almost all of the pre-service teachers considered pronunciation a key element in language teaching as in the study of Counselman (2010) who referred that the participants of his study are concerned about their pronunciation, which leads to pronounce target language better. Also, it was found that they believed they can develop their pronunciation through instruction and practice showing parallelism with the participants' ideas of the present study. Based on the results of the quantitative and quantitative data of the present study, it can be asserted that students' positive attitudes toward pronunciation and its teaching can lead to successful learning since they reflect their desire to learn pronunciation during language classes and appropriate classroom practices can be developed by language teachers. The results of Steed and Cantero's study (2018) display similar emphasis on the positive impacts of students' attitudes, which is, as they discussed, one of the ways to attain pronunciation skills. They conducted a study to explore students' attitudes toward

pronunciation and reported that 98% of the participants agreed upon the importance of pronunciation. The researchers mentioned two fundamental pillars on which students' attitudes are based. This means that the students are self-confident in themselves and in their capability to acquire pronunciation, which provide more effective pronunciation learning and positive attitudes toward pronunciation.

The examination of mainly the quantitative data conducted to discover EFL pre-service teachers' attitudes toward pronunciation of English language using PAI revealed that they had generally positive attitudes toward pronunciation teaching and learning. Given the examination of overall average, they responded all the items as "agree", which means they perceive pronunciation as a vital component of language learning and teaching. Also, the qualitative data adds evidence to the findings of the quantitative data in terms of interviewers' beliefs regarding the importance of pronunciation and pronunciation instruction. It seems as though EFL learners who have positive attitudes toward pronunciation are more willing to learn accurate pronunciation. The findings from the present study provide evidence to the findings of the previous studies showing that positive attitudes regarding pronunciation and pronunciation instruction are important. (Cenoz & Lecumberri, 1999; Counselman, 2010; Elliot, 1993; Kang, 2010a; Kang, 2015; Steed & Cantero, 2018; Tikkakoski, 2015). For example, in her study focusing on the examination of ESL learners' expectations and attitudes toward pronunciation instruction, Kang (2010a) found that the ESL learners from language institutes in two inner-circle countries selected as the settings of the study agreed on the significance of pronunciation improvement. Students' attitudes toward learning pronunciation were measured by a survey instrument designed by the researcher of the study and the data obtained via this survey revealed that a clear majority of the students reported that they are interested in pronunciation for communicative concerns.

Similarly, the participants of the present study considered pronunciation to be of vital importance for speaking skills. Their reasoning for this belief is that pronunciation skills can facilitate people's lives in terms of communicating efficiently in target language in different situations as also stated by Tikkakoski (2015) and Kang (2015). For this reason, they desire to improve their accent of target language. Concerning the relationship between the desire to learn pronunciation and pronunciation development, Elliot (1993) suggested an important finding which reveals that students' attitudes are remarkably effective factors in the acquisition of pronunciation of target language. Students are inclined to have better pronunciation of target language if they are more concerned about their pronunciation improvement. The study mentioned above supports the present study in this sense. This is

because the qualitative data of the present study revealed that the participants emphasized the importance of pronunciation knowledge in order to communicate more efficiently. Based on the findings of the present study which are compatible with the findings of the abovementioned studies, one can conclude that pronunciation teaching is popular among language learners and should give importance to communication. In Turkey, the significant growth of interest in pronunciation by language learners can be inspiring for language teachers who in reality, regard pronunciation as a rather dispensable activity. On the basis of this notion, teachers should know what is needed for an effective pronunciation teaching and learning environment in order to enable language learners to communicate effectively with other speakers of target language rather than trying to make them speak with a perfect accent. Furthermore, they should carry their thought a step further for learners' phonological development by introducing phonological content in their own teaching explicitly.

The participants of the present study generally believed that correct pronunciation at segmental and suprasegmental levels enables them to be more self–confident and intelligible and therefore to be able to speak more fluently. Supporting the findings of the present study, Cenoz and Lecumberri (1999) emphasize the significance of phonetic element for language comprehension and production as well as other elements of language. Therefore, the articulation and perception of speech sounds should be paid more attention for efficient communication. The commonly stated belief by the abovementioned researchers is the contributing and beneficial nature of pronunciation skills and pronunciation instruction for better communication. Considering the importance of pronunciation component in language teaching, it would be more useful to present more examples of the studies about this concern and discuss the beliefs about these issues based on the literature.

The qualitative data of the study also revealed that some of the participants regarded pronunciation competence as a vital part of language instruction rather than other linguistic proficiencies such as grammar and vocabulary for effective interaction. They noted that there is still a priority of teaching grammar and vocabulary whereas pronunciation tends to be the ignored component of many language programs. Teachers' attitudes toward pronunciation was the factor that most of the participants pointed out when they were commenting on the ignorance of pronunciation component in the existing education system. The participants generally complained that their language instructors deemphasize pronunciation in their classes since they mainly focus on grammar and vocabulary in classroom activities.From this viewpoint, it can be remarked that, based on the participants' comments, educational policies and language teachers should pay attention to pronunciation teaching as well as grammar and

vocabulary for the improvement of speaking skills.In contrast, in a study conducted by Simon and Taverniers (2011), the findings showed that vocabulary is considered to be highly more significant than pronunciation and grammar for efficient communication. According to the researchers, vocabulary-related errors cause communication breakdown while inaccurate pronunciation does not cause a disruption of communication.

During the interviews, the participants voiced the importance of pronunciation over and over, which means that they have a high level of pronunciation awareness. The growing awareness of pre-service language teachers concerning that it is not likely to develop overall language proficiency without learning pronunciation at least to a certain degree can make learners and teachers focus on pronunciation as well as other components of target language. In addition, phonological awarenesscan be beneficial for language learners to know what aspects of pronunciation to focus on and what they can build on this awareness. Conclusions of the present study maintain that the participation in explicit pronunciation instruction raised their awareness regarding pronunciation issues, especially for those that are related to prosodic features of English thereby creating an awareness of the importance of pronunciation not only for more efficient speaking skills but also self-confidence regarding the skill. In other words, it can be commented that pronunciation seems to be highly significant since teaching pronunciation can be useful for students to increase awareness about the differences between their own skills and those of competent speakers in the second language society as is the case with grammar teaching that make learners be aware of the distinction between their grammatical development and those of proficient language users (Derwing and Munro, 2005). Due to the reason that they had no pronunciation instruction before starting to attend EFL department, they referred that they did not notice the positive impacts of pronunciation teaching on their speaking skills thereby they did not endeavor to develop their pronunciation. In this sense, it can be suggested that learners' awareness should be raised in order to enable them to monitor their pronunciation and speaking skills which will lead to make an effort to learn pronunciation outside the classroom setting as also stated by Hişmanoğlu (2006).

As an example for the studies conducted in Turkey in order to determine the attitudes of language learners toward pronunciation and pronunciation teaching, Coşkun (2011) asserts that the participants in his study agreed on the belief that English language teaching in classroom environment especially for the purpose of attaining native-like pronunciation is seen very significant. In contrast to the findings of this study and the studies mentioned above, another study carried out by Dalton-Puffer, Kaltenboeck and Smit (1997) suggests different conclusions from those found in this study that positive attitudes toward target

accent are not regarded as crucial for successful L2 phonology learning since different factors such as learners' motivation might be more influential on students' level of pronunciation attainment. However, based on the participants' beliefs of the present study, it can be inferred that such factors as motivation and pronunciation aptitude of language learners can increase if they have positive attitudes toward pronunciation.

In addition to communicative concerns, the findings of the study revealed that, pronunciation is worth mentioning in many other aspects such as social interaction, self-confidence, being respected in language speaking community and pedagogical aims as well. Viewing pronunciation as a predictor of qualified interaction that may lead to a rethinking of the social positions of language users, it is possible to note that pronunciation is important to understand to what extent language users show another speaker with native accent respect and show a lack of respect to those having a non-native accent.

In this regard, the results of the study suggest that participants take into account of pronunciation in order to get more respect from native speakers and proficient language users. Similarly, based on the remarks of participants regarding their language teachers, it can be inferred that they tend to show more respect to the language teachers who have good pronunciation while teachers with inaccurate pronunciation are exposed to loss of credibility by their students. Supporting the same belief, Florez (1998, p.1) states that *"…limited pronunciation skills can undermine learners' self-confidence, restrict social interactions, and negatively influence estimations of a speaker's credibility and abilities*…". Similarly, given that pronunciation is considered the most dynamic aspect of speakers' utterances, credibility of teachers somewhat depends on their pronunciation skills. If they have poor skills, they will suffer disrespect (Rolle, 2002). In another study conducted to understand the effects of good and poor pronunciation skills on language users' credibility, it can be asserted that less status was given to heavy-accented speakers (Dragojevic et al., 2017). On the basis of the findings of above-mentioned studies and of the present study, it can be stated that teachers can establish more credibility as EFL teachers by improving their pronunciation skills thereby they can abstain from being evaluated negatively by their students.

In addition to the issues discussed above, the participants commented on learner characteristics in pronunciation teaching and suggested different factors that should be dealt with for more effective pronunciation learning and teaching process. Age was the factor that all of the participants referred to when they were responding the questions regarding the relationship between learner characteristics and pronunciation issues. They mentioned their perceptions about the age factor as a significant issue affecting the attainment of phonological

features. They referred that there is a close relationship between age and attainment of pronunciation as also stated by many researchers. (Bongaerts, Van Summmeren, Planken &Schils,1997; Flege, 1998; Flege, 2003; Flege, Yeni-Komshian&Liu,1999; Florez,1998; Knightly, 2000; Marinova-Todd, Marshall&Snow,2000; Piske&MacKay,1999). The qualitative data revealed that most of the participants agreed upon the notion that child language learners can successfully acquire L2 pronunciation since they are in the period roughly between 2 and puberty, which is defined as critical period for language learning. Some studies have reported that adult learners have poor pronunciation due to their ages being after puberty and children are believed to acquire L2 pronunciation rapidly and with little effort compared to adult learners. For example, Florez (1998) underlining the significance of pronunciation for overall communicative competence, maintains that it can be difficult for adult learners to acquire pronunciation completely and successfully because of the fact that lateralization is completed after puberty and thereby adults may not only have difficulty in perceiving the differences of native-like sounds but also produce these sounds constrictedly. Sharing the same beliefs with the afore-mentioned researcher, another experimental study was conducted, if not recently, by Flege et al. (1999). In their study, the Native-Korean learners of English pronunciation were the participants and their performances were evaluated by raters for overall degree of foreign accent. The findings of the study showed that as age of arrival increased, there was a decrease in pronunciation accuracy and performances of the participants. Therefore, it seems possible to suggest that the effect of age of arrival became significant on judgement of pronunciation attainment. Examining the relationship between age and acquisition of pronunciation from a different perspective, Knightly (2000) focused on the effect of overhearing target language during childhood on pronouncing with a native-like accent. The researcher conducted an experimental study by using three different groups of language learners who had different backgrounds related to the use of target language as the participants of the study. The findings of the study revealed that overhearing target language in childhood can provide some pronunciation advantages for adult language learners. This result implies that early exposure to a language may be more beneficial for native-like proficiency.

In contrast to the results of the studies mentioned above, some participants of the present study provided data suggesting that some features of English pronunciation might be difficult to acquire by children while adult learners are more capable to perceive and produce phonological features of English language easily. In a similar vein, Marinova-Todd et al. (2000) underline the difficulties that adult language learners encounter in attainment of L2 pronunciation emphasizing the importance of the age of first exposure to the target language.

However, considering age a significant factor influencing learners' success in language learning process if not the primary factor, they paid attention to the truth that adult learners can master second language to nativelike levels and attributed the failure of adult learners regarding language learning to differences in age reflecting the differences in learning situations rather than their capacities to learn a language. Therefore, if necessary situations are provided, adult learners can attain native-like accuracy in pronunciation. (Marinova-Todd et al., 2000). MacDonald (2013) also states that extra input and experience may facilitate to overcome age-related difficulties and learners can perceive and produce phonological forms and patterns more effectively. With a purpose of investigating the impacts of age-related factors on pronunciation achievement, Bongaertset al. (1997) conducted a study involving two different studies regarding the point of complete success of pronunciation by late second language learners. Based on the results of the study, they stated that late second language learner can attain native-like pronunciation and extended the discussion about the same concern emphasizing that a late start for learning second language pronunciation can be compensated by a cooperation of certain learner characteristics and learning contexts.

In the present study, the overall pattern of the results suggests that most of the participants exhibited phonological problems and difficulties even after they received pronunciation instruction. On the basis of this fact, it can be noted that their persistent problems regarding English pronunciation might be due to the age factor. Adult learners may approach pronunciation learning from different native language backgrounds and thereby they generally have foreign accents identifying them as nonnative speakers. That is why, the present study extends this general finding by establishing foreign accent-age relationship such that early exposure to English pronunciation leads to efficient improvement in pronunciation learning for adult learners. Taken together, the findings contribute to the previous studies claiming that age at acquisition of target language pronunciation helps determine to what extent they will develop their English pronunciation- specifically at the suprasegmental level.

The characteristic referred most frequently by the participants of the present study has been the age of language learners regarding their beliefs about the relationship between learner characteristics and ultimate attainment of English pronunciation. As to the other characteristic referred by one participant has been native language. As stated in the present study, most researchers acknowledge that language learners' first language may have either positive or negative impacts on the acquisition of the pronunciation of target language. Therefore, native language is believed to play an important part in accounting for the reasons for foreign accent. (Florez, 1998; Flege, Frieda & Nozawa, 1997; Guion, Flege & Loftin,

2000; Piske & Mackay, 1999; Piske et al., 2001). Based on the results of the studies referring to the effects of native language on pronunciation learning and teaching, it is clear that there is a strong correlation between first language and attainment of native-like pronunciation. One study regarding the issue mentioned above was conducted by Guion et al. (2000) supporting the belief that the use of native language affects L2 production. Researchers determined the participants' amount of L1 use applying for their responses to a language background questionnaire including the questions related to the age at which they learned their second language and the amount of their L1 use. Also, their performances in L1 and L2 were recorded and the listeners who are proficient in their native language rated the sentences that the participants performed. The findings of the study indicated that as the use of L1 increased, L2 sentences were produced with more foreign accent. Another study conducted by Flege et al. (1997) sharing similar results with the previous study showed that the more participants used their native language, the stronger foreign accent was perceived in the L2. Replicating the study of the effects of L1 on L2 production, Piske and Mackay (1999) found that the participants who had more L1 use displayed more foreign accent. Verifying the belief that various factors can be attributed to the failure or success in L2 pronunciation of language learners, they emphasized that both the age of first exposure to the L2 and the amount of L1 use are effective in pronunciation accuracy.

Another point discussed by the participants of the present study was the language proficiency of the learners. Some of them believed that the efficacy of pronunciation learning and teaching can be attributed to language levels of learners. This means that lower-level learners may show less improvement than advanced learners while advanced learners are likely to acquire phonological patterns and use them in different contexts since they have foundational knowledge of other skills and pronunciation. Discussing the same issue, work by Lee et al. (2014) has shown different results from the beliefs of the participants mentioned above and suggested that different levels of proficiency do not lead to failure in pronunciation acquisition since learners who possess different levels of language proficiency can benefit from pronunciation instruction. Based on the notions of the participants of the present study, if pronunciation instruction can make a difference according to the language levels of learners, the next step should be to identify appropriate techniques and strategies to tailor it to the students' needs.

Based on the results of these studies and the discussion of researchers, it can be concluded that learner characteristics such as amount of L1 use, age of first exposure to pronunciation of target language and length of residence either in EFL or an ESL context have

strong impacts of the perception and production of L2 pronunciation. Okamura (2013) aptly captured this conception in her criticism of similar views proposing that the most salient difficulties resulting in the loss of intelligibility generally stem from L1 interference with L2 pronunciation. Given that learners' strong foreign accents depend on these factors to a certain degree, it can be suggested that the interaction between learner characteristics and foreign accent plays an important part in the acquisition of L2 pronunciation. Although this does not mean that adult learners cannot attain native-like pronunciation, taking into account most of the studies conducted in order to explore these issues, it is possible to claim that the earlier language learners begin to learn L2 pronunciation, the more native-like the pronunciation of the target language can be.

To provide a summary of the discussion about pre-services English language teachers' attitudes toward pronunciation and pronunciation teaching, it can be commented that poor pronunciation skills lead to misunderstanding and distraction in communication. The participants generally displayed positive attitudes toward pronunciation component in language teaching. Such positive attitudes can be explained by the fact that when language learners can practice the target language with correct pronunciation, they enhance their willingness to communicate. Therefore, as the participants of the present study stated that pronunciation competence is significant for successful communication and pronunciation should be integrated into general language instruction, pronunciation knowledge is necessary to make language users process and comprehend other speakers' speech easily. The ELT students seem to be aware of the fact that improving pronunciation has great importance since it promotes many aspects of language such as listening comprehension, fluent speaking, intelligibility and comprehensibility. They also emphasize the positive impacts of good pronunciation on their self-confidence, which leads to better understanding of language components, participate in target language conversations, and classroom activities. The way to attain the goals of comprehensive language programs integrating pronunciation skills into other language skills is to make students be aware of the importance of pronunciation, which also paves the way for finding employment, being respected in the community of target language, educational opportunities and communicative competence

What are the Perspectives of Pre-service EFL Teachers Regarding the Aspects of Pronunciation Teaching?

With the second research question, it was attempted to explore the participants' preferences in pronunciation instruction in language learning and teaching in terms of goals, and features of pronunciation instruction in the present study. Participants were asked what

they would aim in pronunciation learning and teaching and what features of English pronunciation they think should be emphasized. The examination of mainly the responses given to the questions of the qualitative research in the present study has revealed that the participants have different types of preferences regarding pronunciation instruction. Some of the participants expressed an interest in intelligibility as the goal of pronunciation instruction whereas other participants emphasized that native-like accuracy in pronunciation education should be the primary goal especially for pre-service language teachers.

When scrutinizing the excerpts in which the participants expressed their views and beliefs, two primary goals of pronunciation instruction were identified. Those who supported that intelligibility is necessary for them and their students in the future explained intelligibility as the main goal of pronunciation instruction. They referred that for language users, being intelligible when interacting with others is of great value rather than native-like accent. Some participants considered attaining native-like accent is challenging and requires more effort. Thus, having pronunciation knowledge to the levels of intelligibility and comprehensibility is enough for all speakers of that language in order to communicate efficiently. At this point, it can be asserted that, based on the participants' comments mentioned above, Communicative Language Teaching is one of the commonly and implicitly preferred methods for attaining their goals in language teaching since CLT emphasizes the importance of intelligibility rather than the role of native speaker norms when determining pronunciation goals (Çelik,2008). This goal is also emphasized by many researchers who approach pronunciation learning and teaching from the perspective of providing the learners with intelligibility and comprehensibility (Baker & Murphy, 2011; Derwing, 2010; Gilakjani, 2012; Jenkins, 1998; Kenworthy, 1987; Martin, 2013; Morley, 1991; Gilakjani, 2016; Rajadurai, 2001; Rajadurai, 2016).

Of the studies regarding the goals of pronunciation instruction, one of the most frequently cited belongs to Derwing (2010). Derwing who distinguishes accentedness, intelligibility and comprehensibility by providing with their definitions advocates that it would be more beneficial to focus on more achievable goals in pronunciation instruction. Intelligibility and comprehensibility thus should be the goals of language learners rather than native-like pronunciation which was regarded as a utopian goal in pronunciation instruction. In addition to the study mentioned above, the goals of pronunciation instruction were among the issues under discussion in the study conducted by Gilakjani (2016). Emphasizing the importance of pronunciation instruction for communicative competence which requires

understandable pronunciation skills, Gilakjani (2016) stated that intelligibility should be aimed in order to be able to communicate more efficiently.

Another example from previous research can be given as an example considering intelligibility as the primary aim of pronunciation instruction. In a similar vein, Martin (2013) proposed that language is acquired within a variety of communicative situations in company with the goal of teaching learners to be able to use the target language effectively in these situations. For the reason that efficient communication is considered a means for personal, academic and professional lives, Martin (2013) maintains the belief that intelligible and comprehensible pronunciation is strongly connected with successful communication. Approaching the issue from a different perspective, Jenkins (1998) investigated what should be done in order to be able to communicate with non-native speakers of English who have different L1 backgrounds. Due to the fact that English is the world's major lingua franca, language teachers and practitioners should think about the role of pronunciation and the goals to be accomplished with pronunciation instruction more than before. Since the researcher focused on EIL contexts including non-native listeners rather than EFL contexts that involves native and non-native speakers, she discussed intelligibility for non-native speakers and how to attain intelligible pronunciation. It is obvious that native speakers can understand spoken messages better by means of suprasegmental system. This means that suprasegmentals make more contribution to intelligible communication for native speakers. However, the inferences obtained from native speakers cannot be used in order to understand the same issue for non-native speakers. Therefore, both segmentals and suprasegmentals should be taken into consideration to attain goals of pronunciation instruction (Jenkins, 1998).

Emphasizing the importance of intelligibility in EIL context, Coşkun (2011) maintained that research on pronunciation instruction in EIL contexts should pay attention to intercultural communication rather than standard pronunciation and sounding native-like. Similarly, Alptekin (2002) views that sounding like a native speaker is an unrealistic goal in EIL contexts. Considering perfect pronunciation is unattainable for most of the learners, Morley (1998) states that even if goals including native-like pronunciation seem attractive for language learners, attaining native-like pronunciation is challenging for not only learners but also language teachers. However, these unrealistic goals are not essential for intelligible and comprehensible communication as well as not being desirable. New language programs, fortunately, have moved beyond native like-based goals to the ones aiming toward intelligible communication.

Munro and Derwing (2006) provides a principle to achieve the goal of comprehensibility in pronunciation instruction. They conducted a study focusing on the concept of functional load and used recordings of 80 proficient Cantonese speakers of English in order to evaluate the effects of this principle on accentedness and comprehensibility. They read some sentences containing high frequency lexical items aloud. The listeners listened these recordings and entered their judgements rating each utterance for the degrees of accentedness and comprehensibility. The findings suggested that this principle defined as the functional load principle can be efficiently used in guiding some aspects of pronunciation instruction if the main goal of pronunciation teaching is to provide the students with comprehensible pronunciation.

Based on research evidence, pronunciation researchers have agreed upon intelligibility as the fundamental goal of pronunciation instruction instead of making learners sound like a native-speaker of English. It can be concluded that aiming at the attainment of native-like pronunciation is inappropriate for most learners since it might be devastating. Instead, acquiring intelligible pronunciation sounds a more practical purpose for language learners of English. In setting goals for language learners, language practitioners and teachers need to take into account of their own learners' needs and expectations. Intelligible communication can be focused on in language classrooms depending on these needs and expectations.

Not all participants in the present study, however, hold similar views as to the goals of pronunciation instruction. The qualitative data revealed that other participants are of the opinion that pronunciation instruction should aim toward native-like pronunciation especially for pre-service language teachers. For them, it is not enough to learn pronunciation for being intelligible. As pre-service teachers, they have taken their future applications into account of and emphasized that as they will teach English in the future, they should know all aspects of English pronunciation.

In contrast to the participants of the present study who desire to learn and teach native-like pronunciation, most of the studies support the idea that nativelike accuracy in L2 phonology sounds unrealistic. It is open to discussion whether or not an L2 phonology to the native-like levels can be fully acquired since some of the learners who are highly motivated, not many in number though, may acquire native-like proficiency after early childhood. Yet, it is more likely to attain native-like patterns of pronunciation if the first exposure to target language begins early (Derwing & Munro, 2005; Gerndt, 2014). Therefore, based on this notion, it is undeniable that the goal of ultimate attainment in pronunciation is not achievable in ESL and EFL classrooms. Even if attaining native-like pronunciation seems to be an

unrealistic goal, most language learners desire to achieve native-like accent (Baker & Murphy, 2011; Dauer, 2005). In her study conducted to find out about ESL learners' attitudes toward pronunciation instruction, Kang (2010) obtained different results from the quantitative results of the present study. She conducted a qualitative and quantitative research using interviews and questionnaires with 238 participants. The findings showed that only a small number of participants had little desire to be native-like speakers of target language. This means that they preferred being intelligible when speaking in target language. The quantitative data of the present study, on the other hand, provided the findings that the highest mean scores are related to the desire to have native-like accent while the lowest mean scores include an item with respect to being intelligible in communication instead of sounding like a native speaker of English. These results made it clear that almost all of the participants of the present study desire to sound like a native speaker of English. Based on the comments of the participants of qualitative research, it can be concluded that their reasoning for the desire to sound like a native speaker is to be a language teacher in the future and as language teachers, they must be proficient English users in all aspects including English phonology.

In a similar vein, the findings of a recent study which explored non-native speakers' beliefs about accentedness and intelligibility support the results of the present study. This study belongs to Li (2009) who investigated whether non-natives desire to be native-like or intelligible speakers. A total of 107 students and working adults in Hong Kong were the participants of the study. A survey questionnaire and group interviews were carried out in order to explore the participants' views toward their own accent and their preferred pedagogical model. The findings of the study indicated that a vast majority of the participants preferred a native speakers based accent. Some of the participants, on the other hand, seemed to be faced with a dilemma between having a native-like accent and being intelligible.

Sharing similar results with those of Li's study (2009), Elliot (1993) conducted a study to investigate the variables that might explain Spanish pronunciation learning and the effects of formal instruction of pronunciation. 66 undergraduate students received a pronunciation instruction throughout the entire semester. Conducting an experimental study, a questionnaire was also used to examine the participants' attitudes toward pronunciation issues. The findings of the study revealed that most of the participants expressed a wish to sound as native as possible and more participants stated that one of their goals is to learn accurate pronunciation to be a native-like speaker of target language. Referring that only a small number of participants make an effort to improve their pronunciation even if most of them wish to sound like a native speaker, Elliot (1993) emphasizes that the pronunciation instructors play an

important part in determining students' attitudes toward native-like pronunciation. Therefore, it is suggested that language teachers have many responsibilities in pronunciation teaching process such as guiding learners in acquisition of pronunciation, using suitable methods and increasing learners' motivation.

A study whose findings are consistent with those of the present study was carried out by Takagishi (2012) who conducted this study in order to investigate non-native English teachers' views towards their pedagogical goals and models of pronunciation. A qualitative study including a mix of direct and indirect approaches was conducted to elicit participants' beliefs in depth. Speech samples were collected to explore their views toward them and a semi-structured interview was conducted with 8 participants. The results of the study showed that there are different types of attitudes of participants toward goals of pronunciation instruction because of their past experiences involving their own learning experiences with native speakers and in EIL, ELF and WE contexts, their exposure to target language and their teaching experiences. According to the findings, three participants were found to target a native-like accent while others emphasized a non-native but intelligible accent as the goal of pronunciation teaching. However, all agreed on the beliefs regarding the attainability of native-like accents. Based on their experiences and few opportunities to practice English, they considered that attaining native-like pronunciation is difficult. Some of the participants setting their realistic goals as intelligible pronunciation rather than nativeness changed their goals from native-like to intelligible pronunciation due to their own experiences.

To provide a general discussion for the issue of the goals of EFL and ESL learners in pronunciation instruction, it can be concluded that there are mainly two types of goals which are intelligibility and nativeness. Based on the results of the studies mentioned above and the findings of the present study, it seems that some learners would target native-like accuracy in their own learning and teaching processes whereas others assert that being intelligible should be the main starting point of pronunciation learners and teachers. Again, most of the learners regard attaining pronunciation to the native-like levels as an unrealistic and utopian goal thereby they are faced with a dilemma between their pedagogical goals and the attainability of native-like accuracy. What is needed is to guide language learners in language learning process in order to enable them select the most appropriate goal for them and is to use pronunciation patterns as much as possible and to provide materials suitable for their goals.

One of the issues worth mentioning in the discussion of pronunciation instruction is the importance of features of English pronunciation from the perspectives of pre-service teachers. By the investigation of the qualitative data of the present study, some general

tendencies emerged, including reflections about the focus of pronunciation instruction. Pre-service teachers' preferences regarding the priority of the features of pronunciation in phonological training can lead to a guiding principle for incorporating pronunciation into language teaching classes. The participants frequently emphasized the importance of suprasegmental-oriented pronunciation teaching for their language proficiency and communicative competence. They stated that efficient communication and intelligibility rely on stress, intonation and rhythm rather than the correct articulation of vowels and consonants. One of the studies conducted to provide insights into the issue of phonological features in pronunciation instruction can be presented as it shares the same perspective with the present study. Investigating the most appropriate models and norms for language classes in EIL contexts, Jenkins (1998) focused on features of English pronunciation in language teaching and explained that suprasegmental features are more essential for intelligibility if the receiver of the message is a native speaker. However, in EIL contexts, she suggested that segmental features seem to influence intelligibility more than suprasegmentals.

De Bot and Mailfer (1982) concentrating mainly on the perception of intonation feature in suprasegmentals, conducted a study to have a better understanding about the effect of training in the perception of intonation on improvement in production of English intonation patterns. The results of experimental study revealed that the group which received intonation training showed remarkable improvement while control group showed slight improvement. Based on the researchers' notions about intonation aspect of English, it can be suggested that intonation patterns of English are very difficult to produce fully and successfully considering this accomplishment is heavily attached to perceive intonation accurately. Therefore, not only language learners but also teachers should be trained in intonation perception for better production intonation patterns. By the same token, Whiteheadet al. (2008) stress the importance of suprasegmental features with regards to accurate speech production and perception.

The belief that instruction should be based on primarily suprasegmentals reveals that suprasegmentals is likely more dominant forthe developmentof intelligibility than segmentals. Yet, intelligibility is not sole rationale of the participants of the present study for the importance of prosodic features in pronunciation and language classrooms. In contrast, prosodic features can be directly associated to speaking skills since they are influential in not only words but whole utterances as well. This is why they make more contribution to speaking skills involving production and perception skills than segmentals.

On the other hand, some different preferences, on the basis of the excerpts obtained from the participants of the present study, about the importance of segmental and suprasegmentals emerged. One participant particularly concerned about segmental-oriented pronunciation instruction for the reason that language speakers cannot be intelligible without the knowledge of correct articulation of vowels and consonants even if they are proficient at the suprasegmental level. The relevant literature reveals that there are several studies conducted to explore this issue and provided similar results with the views of above-mentioned participant of the present study. For example, Rajadurai (2001) conducted a quantitative study in order to explore three issues regarding pronunciation one of which is what should be the goal and focus of pronunciation teaching. A questionnaire was used to elicit students' responses about the issues included in the study. When they were asked which features they find more helpful, they mostly found segmentals more useful than suprasegmentals. Training in segmental production is considered of great value since they believe they can improve their pronunciation via segmental training. On the other hand, they found training in suprasegmental features as useful only for the improvement of their listening comprehension skills.

Delamorandiere (2016) presented similar findings in her study conducted to investigate language learners' and language instructors' beliefs about pronunciation instructors' correction and opinions. Regarding the importance of phonological features of English, analysis of interviews showed that in general, instructors found segmentals important for correction in pronunciation classes. Considering segmental features as "building blocks" of suprasegmental features, Delamorandiere (2016) believes that acquiring the production of segmental features is given priority before the acquisition of surasegmentals in exactly the same way as the participant of the present study does. Supporting the findings of Delamorandiere's study, Chiu (2008) also investigated teachers' beliefs about component of pronunciation teaching and ascertained that mainly within the EFL context, the teachers who participated in the study heavily concentrated on teaching of segmentals in their beliefs and practices while only one teacher provided the students with the instruction of suprasegmental features in addition to segmentals and stated the importance both segmental and suprasegmental features. Given the importance of pronunciation in recent years, it is beyond doubt that teachers should pay attention to not only segmentals but also suprasegmentals teaching in their pronunciation teaching practice in their own teaching. However, the relevant literature accompanied by the findings of the present study reveals that most teachers' practices regarding pronunciation are so insufficient that it seems they fail to satisfy the students' needs and expectations. Moreover, such a lack results in a gap between theoretical

knowledge about pronunciation teaching provided by researchers and practices of teachers with respect to pronunciation component of target language. In order to address this gap, the first step should be to understand teachers' perceptions underlying their preferences connected their pronunciation practices.

Based on the studies focusing on segmental-oriented pronunciation teaching, it can be claimed that the difficulty of acquiring such features as stress intonation and rhythm especially in English leads to unwillingness to learn and teach suprasegmental features. Moreover, some language learners and teachers believe that segmental features form the basis of suprasegmentals and contribute to intelligibility more than suprasegmentals. Due to these reasons, language learners tend to prefer segmental-oriented pronunciation instruction.

By contrast with the above-mentioned studies focused on only one component of pronunciation and providing either segmental or suprasegmental-based results about learners' and instructors' perceptions toward the focus of pronunciation teaching and learning, some researchers conducted studies suggesting the combination of both types of phonological features would be more beneficial rather than focusing just one aspect of pronunciation. For example, regarding her own study as one of the few studies carried out in a real classroom setting focusing on both correct articulations of sounds and acquisition of prosodic features, Ueno (1995) conducted a study with a focus on both segmentals and suprasegmentals at a college in Japan with 89 participants in order to investigate the differences between segmental and suprasegmental-oriented pronunciation teaching. In this experimental study, suprasegmental, segmental and overall oral-aural aspects of language including receptive and productive abilities were tested. The findings revealed that there were few significant differences between the suprasegmental and segmental groups.

Based on the results of this study, it can be inferred that focusing only one aspect of pronunciation does not result in overall improvement in reception and production skills of target language. Instead, a combination of two aspects of pronunciation can be preferred to provide a more effective pronunciation teaching and lead to better results in learners' phonological skills. Also, Breitkreutz et al. (2001) explored teachers' beliefs about pronunciation teaching practices. They developed a survey which included demographic information about the participants and a variety of pronunciation-related isssues. In this study, vast majority of the respondentsfound a combination of segmentals and prosodic features important. The same participants, on the other hand, suggested teaching segmental features as the best way for overcoming communication-related problems.Another finding of this study was that many respondents use computer software which focus on segmental features heavily.

Similarly, some of them complained about the lack of materials and resources including teaching of suprasegmental features in their teaching programs. These results provide evidence for the necessity of focusing on more aspects than segmentals when incorporating pronunciation instruction into language teaching programs.

Another point worth mentioning in the discussion of pre-service teachers' preferences regarding the components of pronunciation is their comments on the ways of improving the efficacy of pronunciation teaching. Except from one, all of the participants were very clear that language students need instructor assistance to improve their pronunciation skills. Most of the participants referred that they had not received phonological instruction, which led them to recognize that they had a critical lack of pronunciation awareness thereby they could not adequately access the effectiveness of their experiences. Almost all of them credited their previous teachers with having lack of phonological knowledge and neglecting the components of pronunciation in language classes. It seems that their phonological awareness increased with the instruction provided at the tertiary level. Vela-Izquierdo (2015) provides similar views with regards to the increase phonological awareness and intelligibility in his study suggesting that pronunciation should be taught by skillful and qualified teachers in terms of phonological knowledge and teaching techniques in order to meet learners' expectations. Therefore, the researcher suggests that teachers need to develop their phonological skills and become familiar with teaching techniques constantly.

The most common response from the participants of the present study was the necessity of explicit instruction. The students receiving explicit pronunciation instruction were satisfied with it. They referred that explicit pronunciation instruction improves not only their phonological skills but also speaking abilities and listening comprehension. The only reasonable way for students to have the opportunity for explicit instruction is to enable them to recognize all the features of English pronunciation and to practice these features in a variety of contexts. The participants also stated that they all enjoyed the format of the pronunciation course and continued improving their pronunciation skills by using different types of activities and tools such as looking up dictionary for unknown words at the segmental and suprasegmental features, paying attention to pronunciation aspects when speaking and listening to other people, and seeking for more opportunities to take the conversation.

Some students suggested different ways of encouraging their confidence in their pronunciation learning process. They expressed that they feel more comfortable when their instructors have positive attitudes toward their errors and guide them to improve their

pronunciation without putting pressure and scaffolding because of their phonological mistakes. Similarly, some classroom-based studies have investigated the role and status of implicit versus explicit instruction shedding further light on the superiority of explicit over implicit instruction (Barnes-Hawkins, 2016; Couper, 2003; Fraser & Perth, 1999; George, 2013; Rasekhi Kologdaragh, 2010).

In a study, Fraser and Perth (1999) maintained that ESL teachers believe explicit pronunciation teaching is beneficial for language learners in terms of increasing self-confidence, improving other linguistic aspects as well as providing more opportunities for social, academic and work advancement. Emphasizing the necessity of providing pronunciation instruction in communicative contexts, Fraser and Perth (1999) suggest that learners should be encouraged to practice real communicative situations.

One of the relatively recent studies was conducted by RasekhiKologdaragh (2010) who attempted to investigate the perceptions of ESL/EFL learners about their pronunciation needs and strategies. In the study of 46 adult students, a questionnaire was used and the findings demonstrated that the participants preferred learning pronunciation rules explicitly even if not many in number. Presenting similar perspectives regarding the role of explicit pronunciation instruction, Hodges (2006) recommended that language instructors should teach pronunciation explicitly since the responses provided by the participants of her study demonstrated that the students were interested in formal pronunciation instruction and believed that it should be discussed in the language classrooms regardless of whether or not explicit pronunciation instruction improves their phonological skills. In a similar way, Yao (2008) asserts that explicit pronunciation instruction is also beneficial for language learners in order to draw their attention to learning strategies and make them consciously apply these strategies in their pronunciation learning process. Inferring from the fact that students learn certain grammatical rules through explicit instruction, Derwing and Munro (2005) claim that explicit instruction can also lead to increased awareness of the differences between learners' own productions and proficient speakers' productions in a target language community.

In contrast to the studies emphasizing explicit pronunciation instruction, based on the findings of her own study, Barnes-Hawkins (2006) claimed that explicit pronunciation teaching is not a priority for many learners while they prefer learning accurate pronunciation within the communicative language teaching content. Exploring the perspectives of English language learners regarding the efficacy of the CLA in providing intelligible pronunciation skills, the researcher conducted a qualitative case study in which the questions including learners' perceptions toward independent pronunciation teaching in terms of meeting their

needs were addressed. Based on the results of this study, Barnes-Hawkins (2006) reported that only two participants wish to improve their pronunciation via receiving explicit instruction in pronunciation beyond the current CLA even though the majority of the participants preferred learning pronunciation in communicative contexts instead of an independent pronunciation instruction course. Similarly, one participant of the present study referred that pronunciation should not be taught explicitly. Instead, it can be integrated into speaking or listening-based language courses since pronunciation can be acquired better when input is provided within communicative contexts. This suggests that implicit teaching of pronunciation may perform better than explicit knowledge when using real life contexts accompanied by phonological components. Similarly, George (2013) investigated the effectiveness of phonetic training using an experimental research design in which pre- and post-tests were implemented with three tasks. Ten students in the experimental group and fourteen students in the control group participated in the study. The participants in the experimental group which received phonological treatment did not show improvement in use of target sound. Rather, they slightly decreased their use on all of the three tasks while the participants in the control group increased their use over time on all the tasks. According to the researcher, this could be because some factors including attitude toward target dialect, exposure and proficiency level may play a part in acquisition of phonological aspects. The interpretation of the findings reveals that pronunciation instruction does not provide a great contribution to phonological development of learners.

In addition to explicit pronunciation instruction, the participants also claimed that pronunciation can improve if learners participate in listening and speaking activities since these skills and pronunciation are interrelated, which means that listening and speaking activities facilitates pronunciation learning, in turn, good pronunciation yields better perception and production skills as also stated in work by Fraser (2000) who asserted that pronunciation is one of the most essential skills to speak English. Use of language in communicative contexts was also suggested by the participants of the study conducted by Nair, Krishnasamy and Mello (2017). Similarly, listening-based activities were emphasized by particularly two participants of the present study. They believed that pronunciation can be best learned via listening activities in a similar way of acquiring native language. Native speakers learn their mother tongue by listening prior to speaking. Therefore, listening can be beneficial for accurate pronunciation learning. This notion was also favored by Bradlow, Pisoni, Akahane-Yamada, and Tohkura (1997) who examined the impacts of instruction in /r/ and /l/ perceptual identification on production skills of adult Japanese learners. Conducting an experimental study, they concluded that when the participants were trained to perceive the

target sounds distinction, their productions automatically improved although they received no production training. As referred by the participants of the present study, this suggests that leaners can benefit from listening training in order to learn accurate production of phonological patterns. Similarly, taking into the best way of use of listening exercises for pronunciation teaching consideration, Ueno (1995) supports that listening practice can pave the way for improved pronunciation thereby pronunciation component can be integrated with a listening class.

What are the Problems and Difficulties of Pre-service English Language Teachers in English Pronunciation?

With respect to segmental features, contrastive Turkish-English studies (Demirezen, 2010; Demircioğlu, 2013; Hişmanoğlu, 2007; Hişmanoğlu, 2009; Seferoğlu, 2005; Şenel, 2006) have found that the most challenging sounds for L1 Turkish-speaking learners of English are those which are absent in Turkish language. These problematic areas have remained the same in Demircioğlu's (2013) study in which the phonological problems of Turkish learners were found in production of the diphthongs in English. He stated that different consonants and vowels unavailable in Turkish lead to the negligence of pronunciation instruction by both language teachers and learners. In his study, the problems encountered by Turkish learners of English pronunciation are attributed to classroom size and the importance given to other language components like grammar as well as differences between Turkish and English phonology. Another study conducted to investigate the difficulties of Turkish learners regarding English pronunciation is presented by Demirezen (2010). The schwa phoneme poses a problem for Turkish language learner since it does not exist in Turkish phonetic alphabet. The correct articulation of this vowel is significant for it plays an important part in communication breakdowns. In order to find the reasons for mispronunciation of the schwa phoneme, Demirezen (2010) conducted an experimental study and found that this vowel seems to be a fossilized error for Turks due to non-native teachers, L1 interference and different phonetic patterns of English.

In a similar vein, Hişmanoğlu (2009) supports the beliefs of abovementioned researchers that as non-existent sounds in Turkish sound system, the inter-dental consonant phonemes pose a problem for Turkish learners. This belief is consistent with the results of the present study. When asked what difficulties and problems they have in English pronunciation, almost all of the participants of the present study responded that they find inter-dental fricatives the most difficult sounds to produce at the segmental level. Their reasoning is that these are non-existent sounds in Turkish language as stated in most studies conducted to

investigate the difficulties and problematic areas of English pronunciation experienced by language learners. The participants believe that mother tongue is influential in the articulation of sounds of target language. Moreover, they suggested that hearing these sounds from native speakers may work better for correct articulation of the sounds of foreign language. This is because some of the language teachers of the participants have the lack of phonological competence at the segmental and suprasegmental levels thereby students do not receive enough input related to correct use of phonological patterns of English. Referring to the same notion, Hişmanoğlu (2010) addresses to the need for more teacher training programs in order to improve in-service teachers' pronunciation skills. These findings lead to the interpretation that language teachers in Turkey lack sufficient pronunciation training opportunities. Also, a further emphasis can be suggested especially for pedagogical approaches rather than restricting training to the study of pronunciation. The probable reasoning for this might be that language teachers are also deficient in incorporating pronunciation into their own teaching in terms of the aim, focus and practices of pronunciation teaching.

The phonological distinctions between languages lead to problems with pronunciation of consonants and vowels of English sound system for not only Turkish learners but also learners from other nations. An example can be presented from Finnish learners who have difficulties in articulation of sibilants, affricates, dental fricatives, and the tense- lax opposition vowels due to the differences between Finnish and English sound systems. (Tergujeff, 2013). Likewise, Chinese learners of English have some common difficulties in production of English pronunciation such as phonological substitution, inter-dental fricatives, the distinction between tense and lax vowels, the use of epenthesis and deletion rules. These difficulties are again due to the differences between learners' native language and target language (Fu, 2010). Chan (2006) conducted an experimental study to explore the difficulties of Cantonese ESL learners. Utilizing four different tasks, the researcher asked participants to perform these tasks for audio-recording. After collecting data, two raters who are proficient in English transcribed the recordings. The findings revealed that the participants had problems at the segmental level, thereby the researcher assigned the teachers the responsibility to be aware of learners' phonological problems and to implement pronunciation practices in order to solve these problems.

Another problematic area for Turkish students is the acquisition of prosodic features. When asked the participants of the present study what they perceived to be their own pronunciation difficulties, some of the participants pointed to the difficulties in learning word stress and intonation which are the most significant elements of suprasegmentals of English.

They voiced the lack of instruction devoted to these features in their past educational experiences several times during the interviews. Therefore, their awareness regarding prosodic features was developed for the first time when they received their pronunciation education at tertiary level. Since Turkish is a syllable-timed language, which is very different from English as a stress-timed language, learners generally find very challenging to learn these features.

As an example from the relevant literature, Chan and Li (2010) conducted a study investigating the problems that Cantonese learners of English encounter at both segmental and suprasegmental levels in pronunciation learning process comparing the major differences between Cantonese and English phonological systems. Asserting these two languages have different rhythmic patterns, they claim that it is most likely Cantonese learners of English to have difficulties in learning suprasegmental features. As to the solution to this problem, they suggest raising the awareness of the differences between languages to overcome such difficulties. Similarly, Derwing and Rossiter (2002) investigated pronunciation difficulties of language learners and conducted an interview study in which the participants were asked what their pronunciation difficulties were. Even if only 10 percent of the participants referred to difficulties they experienced at the suprasegmental level, most of them noted that they had segmental difficulties. However, Derwing and Rossiter (2002) state that although there has been a renewed interest in prosodic elements in pronunciation instruction, learners' perceptions of suprasegmental features do not reflect current practices in pronunciation instruction which emphasize the importance of prosodic training. The fact that suprasegmental features significantly contributes to the intelligibility of nonnative discourse gains more importance to suprasegmentals in pronunciation teaching (Hahn, 2004). Presenting similar perspective, Hahn (2004) maintained that non-native speakers of English regard rhythm and stress patterns of English as challenging aspects which may cause them to fail to master these systems in English.

With respect to the difficulties of language learners at the suprasegmental levels, it can be summarized that suprasegmental-focused pronunciation teaching has received increasing attention, as a result, the language learners' awareness of suprasegmental features has increased to a large extend. Although their awareness increased, they still find these features difficult to acquire since they seem to be unnatural to the learners. Especially for those whose native languages are syllable-timed unlike English as a stress-timed language, the issues of prosodic features appear to be strange, which leads to a failure in acquisition of these systems. Similarly, Turkish learners find these features challenging and this situation may result in

failure of acquisition of these systems. Therefore, some learners can attain neither native-like accuracy nor intelligibility.

To provide a general outline of the issues including problems and difficulties that language learners encounter in pronunciation learning process, based on the above-mentioned comments, it can be concluded that language learners somehow, acquire target language in different ways either slightly or highly. These differences may result from their difficulties in learning some aspects of pronunciation. Language learners generally have problems with the sounds that are not available in their mother tongue at the segmental level and different prosodic elements at the suprasegmental levels. The most frequently mentioned reason for the difficulties of language learners encounter in pronunciation learning process is learners' native language that interferes with their pronunciation acquisition accurately. This is particularly noteworthy since language is a component of culture and thereby mother tongue interferences appear to be seen very natural. In this regard, it is inevitable that language learners may encounter some problems in pronunciation learning, especially with the sounds that are non-existence in their native language. Even, for some students, these problems are exposed to be unpassable and cause them to have foreign accent. The present study revealed that even when some students receive pronunciation instruction, it cannot be warranted that they can overcome all of their phonological difficulties and problems they have had before pronunciation instruction as also seen in Mikuláštíková's study (2012). Based on the results of her study conducted in order to explore the significance of pronunciation teaching in EFL context, the researcher concluded that language learners could not pronounce a wide range of sounds accurately at the end of three months-pronunciation instruction and thereby suggested that pronunciation should be incorporated into language classes for a long period of teaching process since just a small number of classes is not adequate for significant phonological development. Another significant point discussed above was that language learners' problems regarding suprasegmental features of English. Since target language is a stress-timed language, which distinguishes English from other languages which are syllable-timed, language learners find these features challenging to acquire. Taking learners' difficulties and problems into consideration, language teaching programs and language teachers should take over necessary responsibilities in order to enable students to overcome these problems as much as possible.

Does the Pronunciation Instruction Result in Improvements in the General Quality of Pre-service Teachers' Pronunciation at the Segmental and Suprasegmental Levels and Their Comprehensibility?

The raters' rating results provided evidence for this research question. The statistical analysis of the ratings was used to answer the fourth research question examining whether the pronunciation competence of EFL learners changed after they received explicit pronunciation instruction. Likewise, analysis of the interviews conducted with 6 participants provided qualitative evidence for answering the same research question from the perspectives of the students regarding their own phonological development.

Based on the results of the analysis of pre-test and post-test, it can be concluded that pre-service EFL teachers improved significantly their phonological skills following the pronunciation training. In other words, the comparison between the students' pre- and post-test performance showed highly significant improvement in use of segmental features and some of the suprasegmental features of the students who received explicit instruction of English pronunciation as well as their comprehensibility. This result confirms Zamora's (2015) findings which revealed positive effects of explicit instruction on the students' comprehensibility in L2 speech. Conducting a mixed method research, he concluded that the learners improved comprehensibility in their speech after the course even if the improvement was seen only in terms of sentence repetition. Similarly, González Bueno (1994) asserted that formal pronunciation instruction affects learners' phonological development positively based on the findings' of the study carried out by him. Providing the language learners with a segmental-based pronunciation instruction, pre-test and post-test before and after the instruction were performed with the participants. The comparison of the results of the pre-test and post-test showed that there was a significant difference between pre- and post-test in the experimental group while the control group showed no improvement in target sounds. This study supports the results of the present study. In the present study, when reading the passage in the pre-test, the participants displayed a number of problems in articulation of vowels and consonants while they were able to articulate the same sounds more accurately in the post-test, which implies a significant contribution of explicit pronunciation instruction to their production of vowels and consonants.

In a comparatively recent study was conducted by Yoshida (2010) who investigated the effects of oral practice on pronunciation development. Administrating, again, an experimental study, Yoshida (2010) made the subjects take a pre-test, post-test and a delayed post-test after providing them with class and computer-based pronunciation training. Based on

the results of the pre- and post-test, it can be suggested that the learners participating in class-and-computer condition significantly improved in word accentuation after receiving training.

Maintaining that different amounts of L2 exposure influence the perception and production of English front vowels differently, Jeske (2012) conducted a study in order to provide evidence for this issue by teaching the relevant vowels to a group of students from different two schools sharing the same L1 and age of first exposure to L2 English. However, they received different amounts of L2 exposure each week. Results of the study indicated that the students who received larger amounts of L2 pronunciation instruction improved their pronunciation of vowels more than those who were provided less amounts of pronunciation instruction. This study may contribute to the discussion of the present study in terms of some participants' problems in the articulation of vowels and consonants observed in post-test. The raters took some notes when rating the recordings in the present study. These notes showed that some of the students were not able to articulate some vowels and consonants accurately even after they received phonological instruction. The problematic sounds which were observed in post-test of the participants were generally those which do not occur in their native language. This situation shows that some factors may affect learners' phonological development negatively. For example, as seen in the present study, only one term may not be adequate for a complete improvement in pronunciation skills of some students. The participants need more exposure to target language pronunciation with more hours of instruction. The same issue was also referred by Varol (2010) who stated that Turkish adult speakers may have difficulties producing the English consonants and vowels which do not exist in Turkish even if they receive pronunciation instruction. Because, only a small number of participants in this study showed no difficulty in articulating the English specific phonemes, which demonstrates that the participants generally replaced the English sounds with the ones which were the closest Turkish phonemes. Another study recently conducted and focused on learners' pronunciation difficulties and problems was carried out by Li (2015). The researcher referred that one of the most frequently occurred strategies that the participants of her study used in order to overcome the sound challenges was substitution. When they could not articulate target sounds correctly, they replaced these sounds with other sounds sharing some features of articulation. These studies provide similar findings with the present study in which it was found that Turkish learners have difficulty with the English sounds that are non-existent in Turkish language. Therefore, more instructional course and programs can be provided to the students in order to make them overcome their phonological difficulties in English.

The positive impacts of explicit phonological instruction on the students' comprehensibility were also worth mentioning in the discussion of the overall effects of pronunciation training on language learners' speaking skills. The present study provides findings which showed that the participants' comprehensibility mean scores were significantly higher in post-test than those of pre-test. This indicates that after receiving pronunciation instruction, the students have had more comprehensible speech. Emphasizing the importance of developing comprehensible and intelligible skills especially for those who are supposed to integrate into target language community socially and professionally is essential. Gordon and Darcy (2016) investigated whether pronunciation instruction can help learners improve their comprehensibility. They conducted an experimental study and used three different groups receiving the same amount of pronunciation instruction with the same teaching sequence. However, the groups differed in the types of instruction they received one of which were trained on suprasegmental features while another group on four vowel sounds.

As to the third group, the same content was provided without explicit instruction. After rating the speech samples collected from the participants, it was concluded that the group that received suprasegmental-oriented teaching developed more comprehensibility than the other groups. This study may supply evidence for the development of the participants' comprehensibility of the present study. In the present study, pronunciation instruction resulted in enhanced comprehensibility of the EFL students and this situation can probably be attributed to the instruction of suprasegmental features provided to the students rather than the teaching of segmental features. In addition, Derwing et al. (1998) explored the effects of segmental instruction and suprasegmental instruction on the pronunciation of ESL students. Conducting an experimental study, they evaluated the impacts of different types of instruction including segmental- and suprasegmental- based teaching. Also, one group received no special instruction regarding pronunciation. The findings of a post-test after 10 weeks of explicit pronunciation instruction showed that both types of instruction improved comprehensibility on the sentences, and that suprasegmental instruction improved comprehensibility in the narratives as well. Saito (2011) suggested similar results maintaining that explicit pronunciation instruction have significantly positive effects on comprehensibility. Venkatagiri and Levis (2007) provided support to the same notion based on the findings of their study which summarized that speech comprehensibility was significantly improved due to the greater amount of explicit phonological knowledge. The results of the present study are significant, this is because they demand a stronger part of pronunciation training including segmental and suprasegmental features in language classrooms in order to provide the overall pronunciation skills and comprehensibility.

Similar to the findings of the quantitative data, qualitative data revealed that the pre-service teachers frequently commented about the improvement in their phonological skills with the instruction they received. In addition to the development of phonological forms, they referred that their phonological awareness significantly raised. On the basis of the findings obtained from the qualitative data, it can be said that a relationship between the students' pronunciation ratings and the number of qualitative comments regarding pronunciation awareness was found, such that higher pronunciation ratings were associated with a greater number of comments pointing to the increase of phonological awareness after explicit pronunciation instruction. A number of studies can be provided from the relevant literature supporting that phonological awareness of the language learners can raise through explicit pronunciation instruction. (Chang, 2006; Derwing and Munro, 2005; Kennedy & Trofimovic, 2010; Lepore, 2014). Chang (2006) for example investigated whether pronunciation instruction focused on English prosody influenced their phonological awareness. The qualitative data obtained from interviews and classroom observation showed that pronunciation instruction in prosody and meta-linguistic interviews regarding instruction made the learners become aware of the essence of phonological forms and the way to produce them. In addition, it was found that their listening comprehension improved as also stated by the participants of the present study. Among those participants participating in interviews, there were some who showed higher levels of awareness towards especially suprasegmental features stating that they had never received prosodic instruction explicitly or implicitly thereby they first became aware that English word-stress and intonation are produced according to a framework of certain rules. Their remarks concerning the increase in awareness reveal that instruction raises awareness, which in turn, awareness contributes to learners' processing in which they can perform significantly better in pronunciation than those who have a lack of phonological awareness.

This finding was also supported by Leow (1997) who asserted that the findings of his study displayed a correlation between the levels of learners' awareness and their language processing. Approaching the issue from a different perspective, Hişmanoğlu (2012) investigated pre-service teachers' levels of phonological awareness. He found that the participants had low levels of awareness regarding pronunciation. However, they expressed a desire to raise their awareness, which is consistent with the views of the participants of the present study. The participants in the current study asserted that explicit instruction improved their levels of awareness with respect to suprasegmental features. Therefore, they referred that they would integrate prosodic-focused activities into their teaching process in the future in order to raise their students' awareness.

The qualitative data revealed a variety of outcomes of explicit pronunciation instruction from the perspectives of the participants. Based on their perceptions, it can be concluded that the favorable outcomes of explicit instruction can be observed in their linguistic, psychological and pedagogical development regarding pronunciation. When they were asked whether there were any impacts of explicit pronunciation instruction on their overall development, they first mentioned linguistic aspects of pronunciation such that some of the participants referred they learned correct articulation of English sounds and intonation and stress patterns for the first time in their educational life, which in return, they can contribute to their phonological development via different techniques since their awareness highly increased. Another point mentioned by the participants is the efficacy of pronunciation instruction on language learners' feelings and beliefs regarding pronunciation and its instruction. They perceived that after pronunciation instruction they received, their anxiety levels decreased and their self-confidence increased thereby they are more willing to communicate in a target language community.

Offering support to the findings of this study, Hişmanoğlu (2006) emphasizes the importance of affective issues in pronunciation teaching by referring that new trends of pronunciation teaching pay great attention to emotional factors such as self-confidence, identity or feeling relaxed since pronunciation is significantly connected with psychological aspects of learners. Kralova, Skorvagova, Tirpakova and Markechova (2017) conducted an experimental study and presented similar results with those of the current study revealing that after receiving phonetic training for 12 weeks, learners' pronunciation anxiety levels decreased. Likewise, Baran-Lucarz (2016) maintains that having a better understanding of pronunciation anxiety can be more beneficial to provide more effective pronunciation teaching. In this regard, such emotional states as self-confidence, anxiety and embarrassment should be investigated more in order to provide recommendations for a more efficient pronunciation acquisition process. Contributing to the relationship between pronunciation ability and affective issues, Conrad (1991) conducted a study in order to investigate why adult learners have difficulties in acquiring pronunciation and what the reasons for the variance in level of attainment among adult learners are. Emphasizing the role of empathy in the development of pronunciation ability, the researcher asserts that pronunciation and intonation are not only the most difficult aspects to achieve for adult language learners but also the most distinctive and striking representations of personal identity. According to him, phonological issues and personal identity are closely correlated by stating how language learners sound in target language promotes personal, social and cultural identity. In the same vein, Conrad (1991) suggests that empathy as a psychological condition influences phonological

development. His results support the findings of the current study in this respect, whichreveals that the relationship between affective issues and pronunciation teaching seem to be strong.

In addition, the qualitative data unveiled that pre-service language teachers became aware of the importance of pronunciation especially suprasegmental features for intelligible and comprehensible communication. Therefore, they pointed to the place and role of pronunciation in their future practices as in-service English language teachers. The enhanced phonological awareness led to the changes in their attitudes toward pronunciation teaching from the perspectives of the aim, focus and content of teaching process.

The analysis of the quantitative and qualitative data provides further evidence for the significance of pronunciation and pronunciation teaching in language teaching process. In the light of these findings and their contributions to the relevant literature, one can infer that pronunciation issue can be considered to be a multifaceted construct and thus it is necessary to take all aspects of pronunciation into consideration individually and all the issues regarding pronunciation should be dealt with in terms of not only language learners but also teachers, intrinsic and extrinsic factors affecting teaching and learning process of target language pronunciation.

CHAPTER SEVEN

Conclusion

On the basis of the findings of the present study as well as relevant literature, some pedagogical implications are provided in this section. It is anticipated that these implications will be beneficial both to the existing literature on pronunciation teaching and to language teaching programs in an attempt to increase language learners' and instructors' awareness of pronunciation and related issues. Furthermore, for further investigation, some issues will be recommended and limitations of the study will be presented.

Overview of the Study

The current study aimed at investigating pre-service EFL teachers' attitudes, preferences and practices toward pronunciation. Also, another purpose was to explore their difficulties and problems in pronunciation learning process and to what extent they improved their pronunciation skills after receiving pronunciation instruction. For these purposes, a mixed method research design was implemented and both qualitative and quantitative data were obtained from the participants. The quantitative data were collected via a pronunciation attitude inventory and pre/posttests while qualitative data were collected through one-on-one interviews. The pre-service EFL teachers in ELT department at Atatürk University were provided with a segmental and suprasegmental-based pronunciation instruction.

The results, in a broader sense, revealed that pre-service EFL teachers perceive pronunciation teaching as a significant part of language teaching and learning. The quantitative results displayed that they have positive attitudes toward pronunciation and place great importance on its teaching. As for the results of pre-/post-tests, they showed significant improvement at the end of pronunciation instruction while it was seen that some of the participants still had difficulties in some phonological patterns and forms although they received pronunciation instruction. The qualitative results also revealed significant issues that can lead to beneficial changes in the pronunciation teaching practices. The participants, providing support to the results of the inventory, stated that pronunciation instruction plays an important part in language teaching, particularly for pre-service EFL teachers. It was found that language teachers generally have insufficient pronunciation skills and awareness especially at the suprasegmental level. They do not emphasize segmental and suprasegmental features in language classes and do not serve as a model for accurate use of English

pronunciation. In this respect, based on their past experiences, the participants represented a critical evaluation of language education system in Turkey in terms of the lack of importance given to pronunciation teaching. Most of the participants maintained that they were no aware of the significance of pronunciation in their listening and speaking skills due to their educational background. What was striking about some of the participants' comments was their lack of suprasegmental features of English since they never received instruction on these features not only in stand-alone pronunciation course but also in other language courses such as listening and speaking. Therefore, they had no awareness about suprasegmental features and its importance in successful communication.

In addition, given the results of pre-/post-tests and interviews, similar findings can be found that they had difficulties in articulating some patterns at both segmental and suprasegmental levels. For example, the sounds that do not exist in Turkish language system were the most difficult sounds to produce, as stated during the interviews by the participants. They generally referred that they needed to practice especially the sound which are non-existent in their native language in order to articulate these sounds accurately. Also, the results revealed that they find suprasegmentals more difficult than segmentals in different contexts since English language is a tonic language unlike Turkish language.

On the basis of the findings of the study and the relevant literature, it can be concluded that pronunciation instruction has positive impacts on learners' pronunciation competence as well as their feelings and attitudes toward pronunciation. In addition to providing explicit pronunciation instruction for better phonological skills, the focus, content and aims of the instruction provided are significantly crucial. Positive attitudes of students and teachers toward pronunciation teaching, appropriate choices of content, aim and teaching practices in pronunciation courses, in-class and out-of-class exposure to target language pronunciation, additional teacher training programs for the improvement of pronunciation instructors' phonological proficiency can increase the efficacy of pronunciation instruction and the general language skills of language learners, particularly pre-service EFL teachers.

Table 9. A summary of the Study

Research Questions	1. What are the attitudes of pre-service teachers of English language toward pronunciation and pronunciation instruction? 2. What are the perspectives of pre-service EFL teachers regarding the aspects of pronunciation teaching? 3. What are the problems and difficulties of pre-service English language teachers in English pronunciation? 4. Does the pronunciation instruction result in improvements in the general quality of pre-service teachers' pronunciation at the segmental and suprasegmental levels? 5. What suggestions can be made based on the EFL pre-service teachers' phonological awareness and needs?
Data Sources	Quantitative Instrument: a. The Pronunciation Attitude Inventory that was developed by Elliot (1993) and adapted by Roccamo (2015) was implemented to identify the attitudes of pre-service EFL teachers toward pronunciation. b. In order to investigate the development of pre-service EFL teachers' pronunciation skills, pre/post tests were implemented using a text chosen for the reading exercise from the book "Inside Reading 2". Qualitative Instrument: The researcher developed six interview questions to gain further insight into the perceptions, difficulties and preferences about pronunciation teaching and learning.
Analysis procedure	For the analysis of quantitative data obtained from inventory and pre/posttests, the inferential statistics were followed through SPSS 23. For the analysis of the qualitative data, content analysis was adopted.
Main findings	- Pronunciation is a necessary component of general language competence. - Pronunciation instruction is important to improve phonological skills at the segmental and suprasegmental levels particularly in EFL context as well as phonological awareness and comprehensibility. -A variety of factors in the process of developing pronunciation competence such as the differences of target language from native language, the deficiencies of education system, language teachers' attitudes and most teachers' low levels of pronunciation skills, teaching practices used in language classrooms, the lack of opportunities for practicing the target language pronunciation out of the classroom may affect pronunciation development negatively. - An improvement in the language education system, learners' pronunciation awareness, pronunciation teaching practices, teachers' positive attitudes and high levels of pronunciation skills can enhance the quality of pronunciation teaching process.

Pedagogical Implications

Providing answers to the fifth research question of the current study, the results of the present study suggest a variety of implications that can increase the awareness of pronunciation teaching among the language practitioners and teachers and can improve the overall quality of foreign language pronunciation education in Turkey. Based on these results, one of the primary suggestions that should be discussed is the necessity of an increased amount of research for a better understanding of pronunciation issues in Turkey, especially the status and importance of suprasegmental features of English pronunciation in language education and some prominent concepts such as intelligibility and comprehensibility which have become indispensable aspects of successful communication in recent years.

More research can be beneficial for language teachers in order to determine the activities that will meet language learners' needs. Although there might be some language instructors who can determine what should be done for a better pronunciation teaching process and choose appropriate classroom activities and pronunciation teaching strategies, most of the language instructors generally avoid incorporating pronunciation into language teaching process. This may be the result of the fact that such teachers believe that they are not well-prepared for pronunciation teaching. Practical pronunciation research can provide useful suggestions that encourage language teachers to teach pronunciation effectively. Although the field of second language teaching has witnessed growing interest in pronunciation research exploring different features of L2 pronunciation, what becomes obvious, based on the results of the present study, is that much of the research, generally have little to promote L2 pronunciation pedagogy. There is a shortage of theoretical research that can be directly used in practical task of providing learners with opportunities to alter their pronunciation. One main purpose of theoretical proposals regarding L2 pronunciation should be the foundation of best practice for pronunciation acquisition and thereby the gap between research and practice should be bridged.

In order to gain language learners better phonological skills of target language, another issue that should be dealt with is curriculum design which involves pronunciation classes even in the educational process prior to higher education. The participants agreed on the lack of pronunciation instruction in their educational background as well as many other students. Likewise, they referred that their teachers in their past education neglected pronunciation teaching in language classrooms for the sake of meeting the necessities of the curriculum and managing a large number of students in a classroom. The findings revealed that there is a gap between the theoretical considerations presented by pronunciation researchers and practical

issues regarding pronunciation in language teaching contexts in Turkey. Therefore, in earlier years of education, discrepancies concerning pronunciation teaching exist in terms of the quality of the pronunciation instruction provided, the intensity and the amount of time devoted to pronunciation teaching since language education programs mostly concentrate on the improvement of such skills as grammar and vocabulary while pronunciation component is generally neglected despite the significant changes in language literature. What can be recommended in this regard is to apply the relevant theory offered by pronunciation education research in order to make pronunciation practice more efficient.

Today, the Turkish Education system consists English Language Teaching even in primary schools, which shows that English has become prominent for Turkish students, thereby ELT policy has witnessed a number of changes including the aims to increase the quality of teacher education, to adapt the curriculum to EU standards, to select appropriate teaching materials and to teach English for communicative purposes (Kırkgöz, 2007). Given the goals and objectives of ELT policy in Turkey, language teaching in communicative contexts is emphasized and thereby pronunciation should be paid greater attention in order to improve students' intelligibility and comprehensibility for successful communication with other speakers of English. In earlier ages of students, and in crowded classrooms, it might be challenging to provide the students with phonological forms and patterns of English in stand-alone pronunciation classes. In this case, pronunciation patterns can be integrated into listening and speaking classes and pronunciation should be a natural part of these classes. In other words, when access to stand-alone pronunciation classes is limited, learners should be able to receive pronunciation training through incorporated skills such as those integrating phonological training with speaking and listening. Essential support from government and policy makers is needed for constant changes in pronunciation teaching practices. ELT curriculums should be well-grounded on recently and widely suggested theories and methods in the relevant field rather than traditional methods of language teaching. The curriculum prepared for language teaching can provide some guidelines to teachers about the route to be followed when teaching pronunciation of target language. The content of the curriculum particularly in higher education should be appropriate for language learners' language proficiency levels. Curriculum designs should contribute to language teachers so that they can introduce phonological content explicitly, guide the students in pronunciation tasks, provide room for more phonological activities with which the students are able to produce and put into practice each lesson's content.

Also, language teaching textbooks seem to be unhelpful for development of students' pronunciation skills. For this reason, they should be revised to involve sections which teach phonological forms and patterns of English and should support the proposed pronunciation teaching methods as well as being adequate in terms of providing listening and speaking activities so that learners can practice phonological forms sufficiently. Classrooms must be well-equipped in order to use efficient pronunciation teaching practices as well. The number of students in the language classrooms should be proper for implementing the syllabus effectively.

Another point that should be handled is to provide more teacher training programs of English pronunciation offering a full course of pronunciation with its all aspects. Language teacher education programs including courses on phonetics and phonology can be helpful for pre-service teachers to have a better understanding of how the phonological system of target language works. Similarly, pronunciation courses in these programs can help learners overcome phonological difficulties and problems and increase their phonological awareness, which may enable them to be more qualified teachers with high levels of language proficiency. Therefore, additional courses including pronunciation teaching are inarguably needed for EFL teachers. They are indispensable for professional development of EFL learners. Knowing the fact that learners desire to possess explicit knowledge of L2 pronunciation, language teachers must be ready and willing to provide necessary education to them.

The participants of the present study were in general critical of the training their teachers received since their language teachers in elementary, middle and high schools were not well-qualified in terms of pronunciation skills, which led the participants to have a lack of pronunciation awareness and foundation when they began to study at EFL department. They mentioned a lack of training for teaching pronunciation as professionals. This indicates that there is a lack of focus on pronunciation in teacher education programs. Pre-service language teachers need pronunciation training for better pronunciation skills before beginning to serve as a model of accurate pronunciation in language classrooms. Pronunciation courses should aim at not only improving pre-service teachers' pronunciation but preparing them to teach pronunciation in the future as well. As such, they can also identify problems of their learners and make suitable instructional choices by means of their knowledge about phonological system of English. (Zamora,2015). Furthermore, language teachers with good pronunciation skills can be respected more by their students. In other words, speaking a foreign language with accurate pronunciation may gain more credibility in the community of target language.

Language teachers should model correct pronunciation and provide their students to be able to communicate with other speakers of target language.

In addition, some recommendations can be offered about what the focus of EFL pronunciation in teacher education programs should be. One clear indication of the present study is that language teaching practitioners and teachers should take language learners' preferences regarding pronunciation teaching and the difficulties and problems they have in English pronunciation into consideration for a more successful pronunciation teaching process. The findings show that the participants generally have similar problems and difficulties in articulating English consonants and vowels. They also find suprasegmental features of English challenging to acquire since English language has a different system of suprasegmental features from Turkish language. Similarly, they agreed that they received no instruction focusing on these features in their educational background, and thereby they had no awareness of suprasegmental features of English. Based on these findings, it can be suggested that suprasegmental features should have the same importance as segmental features in pronunciation teaching courses for the reason that stress, intonation and rhythm play an important part in increasing intelligibility and comprehensibility in communicative contexts. Therefore, pronunciation classes should be organized in order to provide suprasegmental features of English as well as segmental features. Teaching suprasegmental features can enable language learners to develop their general language skills since pronunciation has impacts on the use of other skills such as speaking and listening efficiently. Neither segmental nor suprasegmental focused pronunciation teaching alone is sufficient for improving the overall perception and production abilities in English. Instead, the combination of two approaches can be helpful in attaining the goals of pronunciation instruction. (Ueno, 1995). However, language instructors are generally inclined to teach only segmentals in pronunciation classes and they adopt their teaching practices concentrating their teaching at the segmental level. This may be due to their lack of knowledge at the suprasegmental level and lack of awareness of surasegmentals. They may regard suprasegmentals as inessential features for the development of language skills. To overcome this, teachers should be trained additionally in order to raise their awareness and knowledge about suprasegmentals.

Intelligibility and comprehensibility are considered to be of vital importance in communicative processes since these aspects promote communication (Atechi, 2004; Derwing & Munro, 2009). Also, they are viewed as the focus of pronunciation instruction by many researchers (Sifakis, 2014; Saito and Van Poeteren, 2012). However, some of the participants of the present study emphasized the importance of having native-like accent

particularly for pre-service EFL teachers as they believe that they should have higher levels of language proficiency and thereby pronunciation skills. Based on these findings, it can be suggested that EFL learners can be provided a comprehensive pronunciation instruction so that they attain their goals of native-like pronunciation. Some of the participants stated that it is very difficult to attain native-like pronunciation and thus they should target toward attaining intelligibility and comprehensibility in pronunciation instruction. In order to improve learners' intelligibility and comprehensibility, explicit pronunciation instruction can be recommended. Another issue concerns teachers' awareness of their responsibilities for determining the focus of pronunciation courses on the basis of theoretical changes and students' needs and challenges. Considering that language is acquired for communicative reasons, then teachers should develop teaching contexts including the aims to improve students' intelligibility and thereby communication skills (Sifakis, 2014). Taking their preferences regarding the focus of pronunciation instruction into consideration, language instructors can prepare syllabus helping students attain their goals in pronunciation. Explicit pronunciation instruction can help learners sound more intelligible and comprehensible even if they still have accented speech. This type of instruction is also significant in emphasizing the differences between L1 and L2 phonological systems (Kissling, 2013; Zamora,2015).

In addition, students need to use phonological patterns that they acquire in pronunciation classes in different communicative contexts. Thus, pronunciation should be integrated into general listening and speaking classes. By doing this, students can have the opportunities to utilize acquired phonological forms in interactional skills. The participants frequently uttered that practicing is needed for better perception and production of problematic sounds of English. In this sense, since in-class practicing activities may be insufficient for the development of such skills, teachers are expected to take more responsibilities including guiding students to practice English pronunciation out of the classroom as well. Meanwhile, students are expected to take part in the learning process actively and wishfully. To do this, teachers should help students develop their pronunciation skills by providing additional activities and exercises as well as suggesting different ways of exposing to target language out of the classroom.

There may also be a concern about how teachers perceive their students' pronunciation and pronunciation in general. Based on the findings of the current study, it can be seen that language instructors' attitudes toward learners' use of phonological patterns and forms play an important role in the development of EFL pre-service teachers' pronunciation skills. The participants frequently expressed that they are influenced by their teachers' attitudes toward

their mistakes in the classroom. If teachers have positive attitudes, learners' self-confidence raise, on the other hand negative attitudes of teachers decrease their self-confidence and increase pronunciation anxiety, which in turn, their development of pronunciation skills is affected negatively. Accordingly, it is possible to extent the suggestions beyond teaching practices and pronunciation-related issues. For a successful pronunciation teaching process, it may not be adequate that teachers promote positive values and attitudes towards English language pronunciation teaching and their students only in classroom setting. They can tolerate students' phonological mistakes in the classroom and continue to give support out of the classroom as well. By this way, pronunciation teaching can be reinforced both in and out of classroom and learners can be psychologically ready to learn phonetics and phonology.

Related to pronunciation teaching practices, suggestions made by the participants should be fully considered. Language teachers should be completely aware of the students' needs and difficulties regarding pronunciation issues. Taking learners' needs and problems in this area into consideration can better guide the teachers in the pronunciation teaching process and to provide the essential instruction for attaining native-like pronunciation as preferred by most of the participants, which in turn enables the students to be more willing to participate in pronunciation classes. Students want their instructors to provide them a strong foundational knowledge of English pronunciation so that they can overcome their problems and difficulties later in their future studies and applications. In consideration of suggestions offered by the participants, some suggestions can shed further light on teachers' classroom activities to implement. With the advent of communicative-based language teaching methods, pronunciation teaching materials have moved beyond the purpose of teaching accurate production of discrete sounds to more communicative contexts. Some techniques such as imitation, discrimination drills and reading aloud are based on traditional methods emphasizing practice with isolated sounds at the segmental level while communication-based methods, focusing on suprasegmentals, emphasize the importance of teaching pronunciation in meaningful contexts. (Jones, 1997). Given this alteration in pronunciation teaching materials, it can be beneficial to integrate pronunciation teaching materials which promotes communicative language use into pronunciation teaching courses in order to help learners become competent speakers and listeners. However, such techniques as repetition, imitation and discrimination drills and reading aloud can be beneficial for some learners depending on their inclination for oral mimicry especially at the segmental level and they can be regarded as a priori step before going through more meaningful and communicative practices (Jones, 1997). Also, because pronunciation learning cannot be limited to classroom teaching, it should be practiced in different contexts and situations in learners' real life.

In pronunciation teaching process, another issue that should be accounted for is that the factors affecting pronunciation learning. The age of learners, their first language and amount of exposure are some of the factors paid attention to by the participants of the present study. Teaching methods and materials are needed to be chosen considering these factors since learners' abilities, native language, and age and to what extent they are exposed to target language pronunciation may determine their levels of success in pronunciation learning. Teachers can choose their teaching practices focusing on these factors in order to improve learners' pronunciation.

Limitations of the Study

This study was conducted on the basis of a mixed methods research design in which both quantitative and qualitative data were collected from pre-service EFL teachers at Atatürk University. Conducting a mixed methods design, it was aimed at avoiding any possible limitations resulted from the research design and adding strength to the research design. Qualitative data were used in order to support the quantitative data in detail and provide a more comprehensive data for the research questions. In addition, the pronunciation instruction received by the participants was provided by the researcher so that she could be actively included in all phases of the study. EFL learners were chosen as the participants of the study since they were learning language to be English teacher and thereby they needed to learn it to be competent users of that language.

One of the limitations of the study was the class size. As the language teaching classrooms were very crowded, it was very challenging to use teaching materials effectively. In addition, all the students in the classroom were not able to practice phonological forms and patterns adequately. With large number of students, it takes longer to complete a task than with small number of students. Pronunciation classes require students' full involvement in classroom activities since only listening to teacher's instructions is not adequate to learn accurate pronunciation. Students need opportunities to practice for attaining desired goals of pronunciation teaching. It was also more difficult to make quiet students participate in the classes. For these reasons, small class size is more suitable for pronunciation courses.

Another limitation was that one term was devoted to teach pronunciation by the researcher instructor. However, 14 weeks were not sufficient to teach all features of English pronunciation in details. Therefore, some aspects of English pronunciation were not mentioned during pronunciation classes.

Further Research

The aim of the present study was to examine pre-service EFL teachers' attitudes, difficulties, preferences and development in pronunciation classes and based on the findings of the study, a number of suggestion can be presented for further research. This study was conducted in one university in Turkey. If the time and opportunities are available to carry out the same process in other universities, the greater amount of data can be provided for the generalization of the findings.

In the study, both quantitative and qualitative data were collected, yet additional data can be collected through observations and focus-group interviews for further research. Classroom observations can provide good contribution to the results and give the researcher the opportunity to compare the reported behaviors with the actual ones. Moreover, only reading aloud exercise was implemented in order to examine their development in English pronunciation after a 14-week course. For further research, it can be suggested to use other types of tasks including the testing of perception abilities of the students.

One of the most important suggestion for further research is to carry out a study including both experimental and control groups. In this study, one-group pre-/post-test research design was used. This type of design might be recognized as inefficient due to the lack of some type of comparison. Many extraneous variables such as history, maturation instrumentation, statistical regression may influence the results of the post-test. However, with a strong research design such as pre-test/post-test control-group design, the influence of confounding extraneous variables can be controlled. A strong experimental design can be recommended for further research.

Another recommendation for further research is to conduct a study not only pre-service EFL teachers and also language teaching instructors. The instructors' perceptions and attitudes toward pronunciation and its teaching contribute to the discussion about the role and importance of pronunciation in language teaching programs. This can enable the researchers to compare students' and their instructors' attitudes toward pronunciation in order to present a better understanding of the difficulties and preferences of both sides and thereby to provide more solution for the increase of the efficacy of pronunciation instruction.

Further investigation can also focus on the different educational settings such as primary, secondary and high school for exploring the practices devoted to pronunciation teaching and for collection data in order to shed more light on EFL learners' past experiences about pronunciation teaching. This study aimed at contributing to the relevant literature by providing a general description of the issues regarding pronunciation and its teaching in ELT

programs. However, more investigation needs to be done in order to understand pronunciation instruction more comprehensively and recommend better pedagogical practices that can increase the efficacy of pronunciation instruction.

REFERENCES

Abowitz, D. A., & Toole, T. M. (2009). Mixed method research: Fundamental issues of design, validity, and reliability in construction research. *Journal of Construction Engineering and Management, 136*(1), 108-116. doi: 10.1061/(ASCE)CO.1943-7862.0000026.

Abrahamsson, N., & Hyltenstam, K. (2009). Age of onset and nativelikeness in a second language: Listener perception versus linguistic scrutiny. *Language learning, 59*(2), 249-306. doi: 10.1111/j.1467-9922.2009.00507.x

Agostinelli, C. (2013). *The effect of pronunciation instruction on the perception of a novel L2 contrast* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3565711)

Ak, S. (2012). *Pronunciation awareness training as an aid to development EFL learners' listening comprehension skills* (MSc thesis). Retrieved from http://hdl.handle.net/11693/15264

Akamatsu, T. (1995). On some neutralisations and arciphonemes in English allegro speech. In J. W. Lewis. (Ed.), *Studies in general and English Phonetics: Essays in honour of Professor JD O'Connor* (pp. 3-9). London: Routledge.

Al-Abdely, A. A. W., & Thai, Y. N. (2016). Learning English vowels by Iraqi EFL learners: perceived difficulty versus actual performance. 3L; Language, Linguistics and Literature. *The Southeast Asian Journal of English Language Studies, 22*(1), 1-18. doi: 10.17576/3L-2016-2201-01

Alastuey, M. C. B. (2013). Synchronous-voice computer-mediated communication: Effects on pronunciation. *Computer Assisted Language Instruction Consortium Journal, 28*(1), 1-20. Retrieved from http://www.jstor.org/stable/pdf/calicojournal.28.1.1.pdf

Alghazo, S. (2015). The role of curriculum design and teaching materials in pronunciation learning. *Research in Language, 13*(3), 316-333. doi: 10.1515/rela-2015-0028

Alptekin, C. (2002). Towards intercultural communicative competence in ELT. *English Language Teaching Journal, 56*(1), 57-64. doi:10.1093/elt/56.1.57

Anderson-Hsieh, J., Johnson, R., & Koehler, K. (1992). The relationship between native speaker judgments of nonnative pronunciation and deviance in segmentals, prosody, and syllable structure. *Language Learning, 42*(4), 529-555. doi: 10.1111/j.1467-1770.1992.tb01043.x

Andrade, H. G. (2010). Using rubrics to promote thinking and learning. *Educational leadership, 57*(5), 13-19. doi: 10.1.1.452.5684

Armbruster, B. B. (2010). *Put reading first: The research building blocks for teaching children to read: Kindergarten through grade 3* (3rd edition). Diane Publishing.

Arrieta, M. (2017). *Teacher and student perceptions of World Englishes (WE) pronunciations in two us settings* (MSc. Thesis, Portland State University). doi: 10.15760/etd.5309

Arslan, L. M. (1996). *Foreign accent classification in American English* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Thesis Global. (UMI No: 9704712)

Arteaga, D. (2000). Articulatory phonetics in the first-year Spanish classroom. *The Modern Language Journal, 84*(3), 339-354. doi.10.1111/0026-7902.00073

Árva, V., & Medgyes, P. (2000). Native and non-native teachers in the classroom. *System, 28*(3), 355-372. doi:10.1016/S0346-251X(00)00017-8

Asher, J.J., and Garcia, R. (1969). The optimal age to learn a foreign language. *The Modern Language Journal, 53*(5), 334-341. doi: 10.2307/323026

Atagi, E. (2014). Representations of nonnative speech (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3628667)

Atechi, S. N. (2004). *The intelligibility of native and non-native English speech: A comparative analysis of Cameroon English and American and British English*. (Doctoral Dissertation, Chemnitz University of Technology). Retrieved from http://www.qucosa.de/fileadmin/data/qucosa/documents/4843/data/atechi_intelligibility.pdf

Atli, I., & Bergil, A. S. (2012). The effect of pronunciation instruction on students' overall speaking skills. *Procedia-Social and Behavioral Sciences, 46*, 3665-3671. doi: 10.1016/j.sbspro.2012.06.124

Baker Smemoe, W., & Haslam, N. (2012). The effect of language learning aptitude, strategy use and learning context on L2 pronunciation learning. *Applied Linguistics, 34*(4), 435-456. doi: 10.1093/applin/ams066

Baker, A. (2014). Exploring teachers' knowledge of second language pronunciation techniques: Teacher cognitions, observed classroom practices, and student perceptions. *Tesol Quarterly, 48*(1), 136-163. doi:10.1002/tesq.99

Baker, A., & Murphy, J. (2011). Knowledge base of pronunciation teaching: staking out the territory. *TESL Canada Journal, 28*(2), 29-50. doi: 10.18806/tesl.v28i2.1071

Baran-Łucarz, M. (2016). Conceptualizing and measuring the construct of pronunciation anxiety: results of a pilot study. In M. Pawlak. (Ed.), *Classroom-oriented research: Reconciling theory and practice(pp. 39-56*). Springer: Cham.

Barb, C. (2005). *Suprasegmentals and comprehensibility: A comparative study in accent modification* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Thesis global. (UMI No: 305385417)

Barnes-Hawkins, C. (2016). *English language learners' perspectives of the communicative language approach* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Thesis global. (UMI No: 1810440594)

Becker, M. R., & Kluge, D. C. (2014). Intelligibility of English as a Lingua Franca (ELF): perception by speakers of Brazilian Portuguese. *Proceedings of the International Symposium on the Acquisition of Second Language Speech Concordia Working Papers in Applied Linguistics* 5, 50-57. Retrieved from http://doe.concordia.ca/copal/documents/5_Becker_Kluge_Vol5.pdf

Benke, E., & Medgyes, P. (2005). Differences in teaching behaviour between native and non-native speaker teachers: As seen by the learners. In E. Llurda, (Ed.) *Non-native language teachers: Perceptions, challenges and contributions to the profession* (*pp.* 195-215). New York: Springer.

Bent, T., Bradlow, A. R., & Smith, B. L. (2007). Segmental errors in different word positions and their effects on intelligibility of non-native speech. *Language experience in second language speech learning: In honor of James Emil Flege*, 331-347.doi: 10.1075/lllt.17.28ben

Berkil, G. (2008). *A closer look at pronunciation learning strategies, L2 pronunciation proficiency and secondary variables influencing pronunciation ability* (MSc. thesis). Retrieved from http://hdl.handle.net/11693/14676

Berns, M. (2008). World Englishes, English as a lingua franca, and intelligibility. *World Englishes*, *27*(3), 327-334. doi: 10.1111/j.1467-971X.2008.00571.x

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*(4), 447-465. Retrieved from https://www.jstor.org/stable/44487989?seq=1#metadata_info_tab_contents

Bouchhioua, N. (2017). The effects of explicit pronunciation instruction on the comprehensibility and intelligibility of Tunisian EFL learners. *International Journal*, *6*(3), 73-88.

Bowen, J. D. (1956). A comparison of the intonation patterns of English and Spanish. *Hispania*, *39*(1), 30-35. doi: 10.2307/335189

Bradlow, A. R., Pisoni, D. B., Akahane-Yamada, R., & Tohkura, Y. I. (1997). Training Japanese listeners to identify English/r/and/l: IV. Some effects of perceptual learning on speech production. *The Journal of the Acoustical Society of America*, *101*(4), 2299-2310. doi: 10.1121/1.418276

Breckenridge, Y. M. (2010*). Professional identity and the 'native speaker': An investigation of essentializing discourses in TESOL* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: NR60517)

Breitkreutz, J., Derwing, T. M., & Rossiter, M. J. (2001). Pronunciation teaching practices in Canada. *TESLCanada journal, 19* (1), 51-61. doi: 10.18806/tesl.v19i1.919

Brennan, E. M., & Brennan, J. S. (1981). Accent scaling and language attitudes: Reactions to Mexican American English speech. *Language and Speech*, *24*(3), 207-221. doi: 10.1177/002383098102400301

Brosnahan, L. F., & Malmberg, B. (1976). *Introduction to phonetics* (1st Edition). Cambridge: Cambridge University Press.

Brown, A. (1991). *Teaching English Pronunciation: A Book of Readings*. London: Routledge.

Brown, A. (2014). *Pronunciation and phonetics: A practical guide for English language teachers* (1st Edition.). London: Routledge.

Burgess, J. & Spencer, S. (2000). Phonology and pronunciation in integrated language teaching and teacher education. *System, 28*, 191-215. doi: 10.1016/S0346-251X(00)00007-5

Campbell, D. T., & Stanley, J. C. (2015). *Experimental and quasi-experimental designs for research*. Ravenio Books.

Camus-Oyarzun, P. (2016). *The effects of pronunciation instruction on the production of second language Spanish: A classroom study* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 10249027)

Carey, M. (2002). *An L1-specific CALL pedagogy for the instruction of pronunciation with Korean learners of English* (Doctoral dissertation, Macquaire University). Retrieved from http://research.usc.edu.au/vital/access/manager/Repository/usc:4908

Cargile, A. C. (2000). Evaluations of employment suitability: Does accent always matter?. *Journal of Employment Counseling, 37*(3), 165-177. doi: 10.1002/j.2161-1920.2000.tb00483.x

Castles, A., & Coltheart, M. (2004). Is there a causal link from phonological awareness to success in learning to read?. *Cognition, 91*(1), 77-111. doi:10.1016/S0010-0277(03)00164-1

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (2010). *Teaching pronunciation hardback with audio CDs (2): A course book and reference guide* (2nd Edition). New York: Cambridge University Press.

Çelik, M. (2008). A description of Turkish-English phonology for teaching English in Turkey. *Online Submission, 4*(1), 159-174.Retrieved from https://eric.ed.gov/?id=ED502019

Cenoz, J., & Lecumberri, M. L. G. (1999). The acquisition of English pronunciation: Learners' views. *International Journal of Applied Linguistics*, *9*(1), 3-15. doi: 10.1111/j.1473-4192.1999.tb00157.x

Chan, A. Y. (2006). Cantonese ESL learners' pronunciation of English final consonants. *Language, Culture and Curriculum, 19*(3), 296-313. doi: 10.1080/07908310608668769

Chan, A. Y., & Li, D. C. (2000). English and Cantonese phonology in contrast: Explaining Cantonese ESL learners' English pronunciation problems. *Language Culture and Curriculum, 13*(1), 67-85. doi: 10.1080/07908310008666590

Chang, M. G. (2006). *Pronunciation instruction, learner awareness and development* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: NR15766)

Cheung, H., Chen, H. C., Lai, C. Y., Wong, O. C., & Hills, M. (2001). The development of phonological awareness: Effects of spoken language experience and orthography. *Cognition, 81*(3), 227-241. doi.org/10.1016/S0010-0277(01)00136-6

Chiba, K. (2012). *A pilot study on the effectiveness of pronunciation teaching to EFL learners through focus on forms and focus on form instruction* (Doctoral dissertation).Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 1288376910).

Chiu, H. H. W. (2008). *Practical understandings: Teachers' beliefs and practices in pronunciation teaching* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 1460681)

Choe, H. (2005). *Negotiation of status of korean nonnative-english-speaking teachers* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3183507)

Chun, D. M. (2002). *Discourse intonation in L2: From theory and research to practice* (Vol. 1). Amsterdam: John Benjamins Publishing

Chung, T. T. (2003). *Speech accent categorization in infancy* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3133176)

Conrad, B. K. (1991). *The relationship between empathy and pronunciation ability: A study of elementary level college students of German as a foreign language* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (303964201).

Cook, V. (1999). Going beyond the native speaker in language teaching. *TESOL Quarterly*, *33*(2), 185-209. doi: 10.2307/3587717

Cook, V. (2013). *Second language learning and language teaching* (4th Edition). London: Routledge.

Coppieters, R. (1987). Competence differences between native and near-native speakers. *Language, 63* (3), 544-573. Retrieved from https://www.jstor.org/stable/pdf/415005.pdf

Coşkun, A. (2010). Whose English should we teach? Reflections from Turkey. *Online Submission, ESP World 9*(1), 1-20. Retrieved from https://files.eric.ed.gov/fulltext/ED508876.pdf

Coşkun, A. (2011). Future English teachers' attitudes towards EIL pronunciation. *Online Submission, 6*(2), 46-68. Retrieved from https://files.eric.ed.gov/fulltext/ED527146.pdf

Counselman, D. (2010). *Improving pronunciation instruction in the second language classroom* (Doctoral Dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3436059)

Couper, G. (2003). The value of an explicit pronunciation syllabus in ESOL teaching. *Prospect, 18*(3), 53–70. http://aut.researchgateway.ac.nz/bitstream/handle/10292/1524/18_3_4_Couper.pdf?sequence=9&isAllowed=y

Couper, G. (2006). The short and long-term effects of pronunciation instruction. *Prospect, 21*, 46–66. Retrieved from http://www.ameprc.mq.edu.au/docs/prospect_journal/volume_21_no_1/21_1_3_Couper.pdf

Couper, G. (2011). What makes pronunciation teaching work? Testing for the effect of two variables: socially constructed metalanguage and critical listening. Language Awareness, 20(3), 159-182. doi: 10.1080/09658416.2011.570347

Creswell, J. W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, N.J: Merrill.

Creswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th Edition). Thousand Oaks, CA: Sage Publications.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 16(3), 297–334. Retrieved from https://link.springer.com/article/10.1007/BF02310555

Çakır, İ., & Baytar, B. (2014). Foreign language learners' views on the importance of learning the target language pronunciation. *Journal of Language and Linguistic Studies, 10*(1), 99-110. Retrieved from http://jlls.org/index.php/jlls/article/view/185

Dalton, C., & Seidlhofer, B. (1994). *Pronunciation* (1st Edition). Oxford: Oxford University

Dalton-Puffer, C., Kaltenboeck, G., & Smit, U. (1997). Learner attitudes and L2 pronunciation in Austria. *World Englishes, 16*(1), 115-128. doi: 10.1111/1467-971X.00052

Dang, T.N.D. (2017). Suprasegmental errors, pronunciation instruction and communication. *Accents Asia, 9*(1), 98-120. Retrieved from http://www.issues.accentsasia.org/issues/9-1/Dang.pdf

Dauer, R. M. (2005). The lingua franca core: A new model for pronunciation instruction?. *Tesol Quarterly, 39*(3), 543-550. doi: 10.2307/3588494

Davies, A. (2003). *The native speaker: Myth and reality*. Great Britain: Cromwell Press.

De Bot, K., & Mailfert, K. (1982). The teaching of intonation: fundamental research and classroom applications. *TESOL Quarterly, 16*(1), 71-77. doi:10.2307/3586564

Dearnley, C. (2005). A reflection on the use of semi-structured interviews. *Nurse Researcher 13*(1), 19-28.

Delamorandiere, R. K. (2016). *Incidental correction of pronunciation: beliefs and classroom practice* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 10150422)

Demircioglu, M. D. (2013). The pronunciation problems for Turkish learners in articulating of the diphthongs in english learning. *Procedia-Social and Behavioral Sciences, 106*, 2983-2992. doi: 10.1016/j.sbspro.2013.12.344

Demirezen, M. (2005). Rehabilitating a fossilized pronunciation error: the/v/and/w/contrast by using the audio-articulation method in teacher training in Turkey. *Journal of Language and Linguistic Studies, 1*(2), 183-192. Retrieved from http://www.jlls.org/index.php/jlls/article/view/15

Demirezen, M. (2009). A model to rehabilitate a fossilized pronunciation error of Turkish English language teachers: the nasal devoicing of/ŋ/as/ŋk. *Procedia-Social and Behavioral Sciences, 1*(1), 2722-2727. doi: 10.1016/j.sbspro.2009.01.482

Demirezen, M. (2010). The causes of the schwa phoneme as a fossilized pronunciation problem for Turks. *Procedia-Social and Behavioral Sciences, 2*(2), 1567-1571. doi: 10.1016/j.sbspro.2010.03.237

Derwing, T.M. (2003). What do ESL students say about their accents?. *Canadian Modern Language Review, 59*(4), 545-564. doi: 10.3138/cmlr.59.4.547

Derwing, T. M. (2010). Utopian goals for pronunciation teaching. *Proceedings of the 1st Pronunciation in Second Language Learning and Teaching Conference* (pp. 24-37). Ames, IA: Iowa State University. Retrieved from https://www.researchgate.net/publication/267951652/download

Derwing, T., & Munro, M. (2005). Second language accent and pronunciation teaching: a research-based approach. *TESOL Quarterly, 39*(3), 379-397. doi:10.2307/3588486

Derwing, T. M., & Munro, M. J. (2009). Putting accent in its place: Rethinking obstacles to communication. *Language teaching, 42*(4), 476-490. doi: 10.1017/S026144480800551X

Derwing, T. M., Munro, M. J., & Thomson, R. I. (2007). A longitudinal study of ESL learners' fluency and comprehensibility development. Applied Linguistics, 29(3), 359-380. doi:10.1093/applin/amm041

Derwing, T. M., Munro, M. J., & Wiebe, G. (1998). Evidence in favor of a broad framework for pronunciation instruction. *Language learning, 48*(3), 393-410. doi: 10.1111/0023-8333.00047

Derwing, T. M., & Rossiter, M. J. (2002). ESL learners' perceptions of their pronunciation needs and strategies. *System, 30*(2), 155-166. doi: 10.1016/S0346-251X(02)00012-X

Derwing, T. M., & Rossiter, M. J. (2003). The effects of pronunciation instruction on the accuracy, fluency, and complexity of L2 accented speech. *Applied Language Learning, 13*(1), 1-17.

Deterding, D. (2001). The measurement of rhythm: A comparison of Singapore and British English. *Journal of Phonetics, 29* (2), 217-230 doi: 10.1006/jpho.2001.0138

Deterding, D., & Kirkpatrick, A. (2006). Emerging South-East Asian Englishes and intelligibility. *World Englishes, 25*(3-4), 391-409. doi: 10.1111/j.1467-971X.2006.00478.x

Díaz, N. R. (2015). Students' preferences regarding native and non-native teachers of English at a university in the French Brittany. *Procedia-Social and Behavioral Sciences, 173*, 93-97. https://doi.org/10.1016/j.sbspro.2015.02.036

Dragojevic, M., Giles, H., Beck, A. C., & Tatum, N. T. (2017). The fluency principle: Why foreign accent strength negatively biases language attitudes. Communication Monographs, 1(21), 385-405 doi: 10.1080/03637751.2017.1322213

Ducate, L., & Lomicka, L. (2009). Podcasting: An effective tool for honing language students' pronunciation?. *Language Learning & Technology*, *13*(3), 66-86. Retrieved from https://scholarcommons.sc.edu/cgi/viewcontent.cgi?article=1000&context=ling_facpub

Eckstein, G. T. (2007). *A correlation of pronunciation learning strategies with spontaneous English pronunciation of adult ESL learners* (MSc. Thesis). Retrieved from https://scholarsarchive.byu.edu/cgi/viewcontent.cgi?article=1972&context=etd.

Edwards, J. G. H. (2008). Social factors and variation in production in L2 phonology. In J. G. H. Edwards & M. L. Zampini (Eds.), *Phonology and second language acquisition* (pp. 251-279). Amsterdam: John Benjamin Publishing.

Elias, L. J. (2000). *Teaching the pronunciation of spelling patterns in an integrated ESL curriculum* (MSc. Thesis). Retrieved from ProQuest Dissertations & Theses Global. (230801027).

Elliott, A.R. (1993). *Biological and pedagogical variables in the acquisition of native and near native phonological skills in Spanish as a foreign language* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 9404406)

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. doi: 10.1111/j.1540-4781.1995.tb05456.x

Field, J. (2005). Intelligibility and the listener: The role of lexical stress. *TESOL quarterly*, *39*(3), 399-423. doi: 10.2307/3588487

Figueroa Seda, V. D. (2009). *Sample ESL oral tests to assess English proficiency skills of pre-basic students at UPRM* (MSc. Thesis). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 1471649)

Flege, J. E. (1998). The production and perception of foreign language speech sounds. Department of Biocommunication. University of Alabama at Birmingham. Retrieved from http://jimflege.com/files/Flege_in_Winitz_1988_small.pdf

Flege, J.E. (2003). *Assessing constraints on second-language segmental production and perception.* In Schiller, N. & Meyer, A. (Eds.), Phonology and Phonetics in Language Comprehension and Production: Differences and Similarities (pp.319-355). Mouton de Gruyter.

Flege, J. E., Frieda, E. M., & Nozawa, T. (1997). Amount of native-language (L1) use affects the pronunciation of an L2. Journal of Phonetics, 25(2), 169-186. doi: 10.1006/jpho.1996.0040

Flege, J. E., Munro, M. J., & MacKay, I. R. (1995). Factors affecting strength of perceived foreign accent in a second language. *The Journal of the Acoustical Society of America*, *97*(5), 3125-3134. doi:10.1121/1.413041

Flege, J. E., Yeni-Komshian, G. H., & Liu, S. (1999). Age constraints on second-language acquisition. *Journal of Memory and Language, 41*(1), 78-104. doi: 10.1006/jmla.1999.2638

Flege, J., Birdsong, D., Bialystok, E., Mack, M., Sung, H., and Tsukada, K. (2006). Degree of foreign accent in English sentences produced by Korean children and adults. Journal of Phonetics, 34(2), 153-175. doi: 10.1016/j.wocn.2005.05.001

Florez, M. C. (1998). Improving adult ESL learners' pronunciation skills. *ERIC, National Clearinghouse for ESL Literacy Education*. Retrieved from https://www.ericdigests.org/1999-4/adult.htm

Foote, J. A., Holtby, A. K., & Derwing, T. M. (2012). Survey of the teaching of pronunciation in adult ESL programs in Canada, 2010. *TESL Canada journal*, *29*(1), 1-22. Retrieved from https://teslcanadajournal.ca/index.php/tesl/article/view/1086

Foote, J. A., Trofimovich, P., Collins, L., & Urzúa, F. S. (2016). Pronunciation teaching practices in communicative second language classes. *The Language Learning Journal, 44*(2), 181-196. doi: 10.1080/09571736.2013.784345

Fraser, H. (2000). *Coordinating improvements in pronunciation teaching for adult learners of English as a second language*. Canberra: DETYA.

Fraser, H., & Perth, H. F. (1999). ESL pronunciation teaching: Could it be more effective. *Australian Language Matters, 7*(4), 7-8. Retrieved from http://walktalkteach.com.au/images/images/documents/Pronunciation-paperbyHelenFraser.pdf

Fu, J. S. (2010). *A comparison between Taiwanese ESL learners' perception and production of English pronunciation* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3426660)

Galloway, V. B. (1980). Perceptions of the communicative efforts of American students of Spanish. *The modern Language Journal, 64*(4), 428-433. doi: 10.1111/j.1540-4781.1980.tb05218.x

Gass, S. M., & Varonis, E.M. (1984). The effect of familiarity on the comprehensibility of nonnative speech. *Language Learning, 34*, 65–89. doi: 10.1111/j.1467-1770.1984.tb00996.x

Gatbonton, E., Trofimovich, P., & Magid, M. (2005). Learners' Ethnic Group Affiliation and L2 Pronunciation Accuracy: A Sociolinguistic Investigation. *TESOL Quarterly*, *39*(3), 489-511. doi:10.2307/3588491

Gebhard, J.G. (1996). *Teaching English as a Foreign Language: A Teacher Self-Development and Methodology Guide*. Ann Arbor: The University of Michigan Press.

George, A. (2013). The development of /θ/, a variable geographic phonetic feature, during a semester abroad: The role of explicit instruction. In J. Levis & K. LeVelle (Eds.). *Proceedings of the 4th Pronunciation in Second Language Learning and Teaching Conference.* Aug. 2012. (pp. 194-206). Ames, IA: Iowa State University.

Gerndt, J. L. (2014). *Perceptions of pronunciation and the link to oral production anxiety among German students* (Doctoral dissertation). Retrieved from ProQuest Central; ProQuest Dissertations & Theses Global. (UMI No: 3636023)

Gick, B., Wilson, I., & Derrick, D. (2012). *Articulatory phonetics*. Oxford: Blackwell Publishing.

Giegerich, H. J. (1992). English phonology: An introduction. Cambridge University Press.

Gilakjani, A. P. (2011). A study on the situation of pronunciation instruction in ESL/EFL classrooms. *Journal of Studies in Education, 1*(1), 1-15. doi: 10.5296/jse.v1i1.924

Gilakjani, A. P. (2012). Goals of pronunciation instruction. *International Journal of Language Teaching and Research, 1*(1), pp.4–8. Retrieved from https://pdfs.semanticscholar.org/0278/6b186730792326717386e89111cfd8141eef.pdf

Gilakjani, A.P. (2012a). The significance of pronunciation in English language teaching. *English Language Teaching, 4*(4), 96-107. doi: 10.5539/elt.v5n4p96

Gilakjani, A. P. (2012b). A study of factors affecting EFL learners' English pronunciation learning and the strategies for instruction. International Journal of Humanities and Social Science, 2(3), 119-128. Retrieved from http://www.ijhssnet.com/journals/Vol_2_No_3_February_2012/17.pdf

Gilakjani, A.P. (2016). English Pronunciation Instruction: A Literature Review. International Journal of Research in English Education, 1(1), 1-6. Retrieved from http://ijreeonline.com/browse.php?a_code=A-10-1-1&

Gilakjani, A. P. (2017). English Pronunciation Instruction: Views and Recommendations. *Journal of Language Teaching and Research, 8*(6), 1249-1255. doi: 10.17507/jltr.0806.30

Gilakjani, A. P., & Sabouri, N. B. (2016). How can EFL teachers help EFL learners improve their english pronunciation ?. *Journal of Language Teaching and Research, 7*(5), 967-972. doi: 10.17507/jltr.0705.18

Gilner, L. (2006). Pronunciation instruction: A review of methods and techniques. Retrieved from https://nufs-nuas.repo.nii.ac.jp/?action=pages_view_main&active_action=repository_view_main_item_detail&item_id=277&item_no=1&page_id=13&block_id=17

Gluszek, A., and Dovidio, J. F. (2010). Speaking with a nonnative accent: Perceptions of bias, communication difficulties, and belonging in the United States. *Journal of Language and Social Psychology, 29*(2), 224-234. doi: 10.1177/0261927X09359590

González-Bueno, M. (1994). *Effects of formal instruction on the improvement in the pronunciation of Spanish stops by second language learners: Changes in voice onset time in initial stops/p, tk/and/b, d, g/* (Doctoral dissertation). Retrived from ProQuest Dissertations & Theses Global. (UMI No: 9504216)

Gonzales-Bueno, M. (1997). Voice-onset-time in the perception of foreign accent by native listeners of Spanish. IRAL, I*nternational Review of Applied Linguistics in Language Teaching, 35*(4), 251-251. Retrieved from https://kuscholarworks.ku.edu/handle/1808/11233

Gonzales-Bueno, M., & Quintana-Lara, M. (2011). The teaching of L2 pronunciation through processing instruction. *Applied language learning*, *21*(1), 53-78.

Gordon, J., & Darcy, I. (2016). The development of comprehensible speech in L2 learners. *Journal of Second Language Pronunciation, 2*(1), 56-92. doi: 10.1075/jslp.2.1.03gor

Gordon, J., Darcy, I., & Ewert, D. (2013). Pronunciation teaching and learning: Effects of explicit phonetic instruction in the L2 classroom. In J. Levis & K. LeVelle (Eds.). *Proceedings of the 4th Pronunciation in Second Language Learning and Teaching Conference.* Aug. 2012. (pp. 194-206). Ames, IA: Iowa State University.

Gorjian, B., Hayati, A., & Pourkhoni, P. (2013). Using Praat software in teaching prosodic features to EFL learners. *Procedia-Social and Behavioral Sciences*, *84*, 34-40. doi: 10.1016/j.sbspro.2013.06.505

Grabe, E., & Low, E. L. (2002). Durational variability in speech and the rhythm class hypothesis. *Papers in Laboratory Phonology, 7*, (515-546). Retrieved from http://wwwhomes.uni-bielefeld.de/~gibbon/AK-Phon/Rhythmus/Grabe/Grabe_Low-reformatted.pdf

Guion, S. G., Flege, J. E. & Loftin, J. D. (2000) The e!ect of L1 use on pronunciation in Quichua Spanish bilinguals, Journal of Phonetics, 28, 27}42. doi: 10.1006/jpho.2000.0104

Gussenhoven, C. (2015). Suprasegmental. *International Encyclopedia of the Social & Behavioral Sciences. 23*, 714-721. Retrieved from http://gep.ruhosting.nl/carlos/52024Suprasegmentals.pdf

Hahn, L. D. (2004). Primary stress and intelligibility: Research to motivate the teaching of suprasegmentals. *TESOL quarterly, 38*(2), 201-223. doi: 10.2307/3588378

Halliday, M., Matthiessen, C. M., & Matthiessen, C. (2004). *An introduction to functional grammar* (3rd Ed.). London: Routledge.

Harris, D. F. (2002). *The effects of training on the pronunciation of mandarin chinese speakers* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 304806053).

Hebert, J. (2002). It's not what you say, but how you say it. In Richards, J. C., & Renandya, W. (Eds.) *Methodology in language teaching: An anthology of current practice* (pp. 188-200). Cambridge University Press.

Heffner, R-M. S. (1952). *General Phonetics.* The University of Winconsin Press.

Henderson, A., Frost, D., Tergujeff, E., Kautzsch, A., Murphy, D., Kirkova-Naskova, Waniek-klimzak, E., Levey, D., Cunnigham, U., & Curnick, L. (2012). The English pronunciation teaching in Europe survey: Selected results. *Research in Language, 10*(1), 5-27. doi: 10.2478/v10015-011-0047-4

Hirst, D., & Di Cristo, A. (1998). *Intonation systems: A survey of twenty languages*. Cambridge: Cambridge University Press.

Hişmanoğlu, M. (2006). Current perspectives on pronunciation learning and teaching. *Journal ofLanguage and Linguistic studies, 2*(1), 101-110. Retrieved from http://jlls.org/index.php/jlls/article/viewFile/26/28

Hişmanoğlu, M. (2007). The [ɔ:] and [oʊ] Contrast as a Fossilized Pronunciation Error of Turkish Learners of English and Solutions to the Problem. *Journal of Language and Linguistic Studies, 3*(1). Retrieved from http://www.jlls.org/index.php/jlls/article/view/41

Hişmanoğlu, M. (2009). The pronunciation of the inter-dental sounds of English: an articulation problem for Turkish learners of English and solutions. *Procedia-Social and Behavioral Sciences, 1*(1), 1697-1703.

Hişmanoğlu, M. (2012). An investigation of phonological awareness of prospective EFL teachers. *Procedia-Social and Behavioral Sciences, 31*, 639-645. doi: 10.1016/j.sbspro.2011.12.117

Hişmanoğlu, M., & Hişmanoglu, S. (2010). Language teachers' preferences of pronunciation teaching techniques: Traditional or modern. *Procedia Social and Behavioral Sciences, 2*, 983-989. doi: 10.1016/j.sbspro.2010.03.138

Hodges, L. J. (2006). *Effects of formal instruction on acquisition of Spanish vowels* (MSc thesis, University of Florida). Retrieved from http://etd.fcla.edu/UF/UFE0014922/hodges_l.pdf

Holland, L. C. (2016). *A study of the intelligibility, comprehensibility and interpretability of standard marine communication phrases as perceived by Chinese mariners* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 1825677305).

Holliday, A. (1994*). Appropriate methodology and social context*. Cambridge: Cambridge University Press.

Hopp, H. (2010). Ultimate attainment in L2 inflection: Performance similarities between non-native and native speakers. *Lingua, 120*(4), 901-931. https://doi.org/10.1016/j.lingua.2009.06.004

Hua, T. (2003). *The acquisition of English speech rhythm by adult Chinese ESL and EFL learners* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 305326536).

Huh, J. (2007). A comparison study on the effects of two explicit pronunciation syllabi on Korean adult EFL learners' learning of English sounds (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3271050)

Huthaily, K. Y. (2008). *Second language instruction with phonological knowledge: Teaching arabic to speakers of English* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 193736656).

Isaacs, T. (2009). Integrating form and meaning in L2 pronunciation instruction. *TESL Canada Journal, 27*(1), 1-12. doi: 10.18806/tesl.v27i1.1034

Jackson, C. N., & O'Brien, M. G. (2011). The interaction between prosody and meaning in second language speech production. *Die Unterrichtspraxis. Teaching German, 44*(1), 1–11. Retrieved from http://doi.org/10.1111/j.1756-1221.2011.00087.x

Jarrah, A. S. (2012). Phonology in Language Learning and Teaching. *Indian Journal of Applied Linguistics, 38*(2), 107-120.

Jenkins, J. (1998). Which pronunciation norms and models for English as an International Language?. *English Language Teaching Journal, 52*(2), 119-126. doi: 10.1093/elt/52.2.119

Jenkins, J. (2000). *The phonology of English as an international language*. Oxford: Oxford University Press.

Jenkins, J. (2002). A sociolinguistically based, empirically researched pronunciation syllabus for English as an international language. *Applied Linguistics, 23*(1), 83-103. doi: 10.1093/applin/23.1.83

Jeske, A. (2016). *The development of English vowels by native Spanish speakers* (Doctoral dissertation, University of Pitssburgh). Retrieved from http://d-scholarship.pitt.edu/27722/1/JeskeA_ETD_Dissertation_May9_2.pdf

Johnson, B., & Christensen, L. (2008). *Educational research: Quantitative, qualitative, and mixed approaches*. Sage.

Johnson, C. D. (2016). *Linguistics as the basis for phonologic instruction* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 10107413)

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher, 33*(7), 14-26. doi:10.3102/0013189X033007014

Jones, R. H. (1997). Beyond "listen and repeat": Pronunciation teaching materials and theories of second language acquisition. *System, 25*(1), 103-112. doi: 10.1016/S0346-251X(96)00064-4

Kanellou, V. (2011). *The place and practice of pronunciation teaching in the context of the EFL classroom in Thessaloniki* (Doctoral dissertation, Cardiff University). Retrieved from http://orca.cf.ac.uk/28787/1/FINAL%20VERSION%20THESIS%20-%20VASILIKI%20KANELLOU.pdf

Kang, O. (2010). Relative salience of suprasegmental features on judgments of L2 comprehensibility and accentedness. *System, 38*(2), 301-315. doi:10.1016/j.system.2010.01.005

Kang, O. (2010 a). ESL learners' attitudes toward pronunciation instruction. In J. M. Levis & K. LeVelle (Eds.), *Proceedings of the 1st Pronunciation in Second Language Learning and Teaching Conference* (*pp*. 105–118). Ames: Iowa State University.

Kang, O. (2015). Learners' Perceptions Toward Pronunciation Instruction in Three Circles of World Englishes. *TESOL Journal, 6*(1), 59-80. doi: 10.1002/tesj.146

Kelly, G. (2000). How to teach pronunciation (1st Ed.). England: Longman.

Kelly, L. G. (1969). *25 centuries of language teaching*. Rowley, MA: Newbury House.

Kennedy, S. (2008). *Second language learner speech and intelligibility: Instruction and environment in a university setting* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (763281030).

Kennedy, S., & Trofimovich, P. (2010). Language awareness and second language pronunciation: A classroom study. *Language Awareness, 19*(3), 171-185. doi: 10.1080/09658416.2010.486439

Kenworthy, J (1987). *Teaching English pronunciation*. London: Longman.

Khaghaninejad, M. S., & Maleki, A. (2015). The effect of explicit pronunciation instruction on listening comprehension: Evidence from Iranian English learners. *Theory and Practice in Language Studies, 5*(6), 1249-1256. Retrieved from http://www.academypublication.com/ojs/index.php/tpls/article/view/tpls050612491256

Kim, T. (2008). Accentedness, comprehensibility, intelligibility, and interpretability of NNESTs. *CATESOL Journal, 20*(1), 7-26. Retrieved from http://www.catesoljournal.org/wp-content/uploads/2014/06/CJ20_kim.pdf

Kirkgoz, Y. (2007). English language teaching in Turkey: Policy changes and their implementations. *RELC Journal*, 38(2), 216-228.

Kirkpatrick, A., Deterding, D., & Wong, J. (2008). The international intelligibility of Hong Kong English. *World Englishes, 27*(3-4), 359-377. doi: 10.1111/j.1467-971X.2008.00573.x

Kissling, E. M. (2012). *The effect of phonetics instruction on adult learners' perception and production of L2 sounds* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 999095463)

Kissling, E. M. (2013). Teaching pronunciation: Is explicit phonetics instruction beneficial for FL learners?. *The modern Language Journal, 97*(3), 720-744. doi: 10.1111/j.1540-4781.2013.12029.x

Kissling, E. M. (2015). Phonetics instruction improves learners' perception of L2 sounds. *Language teaching research*, *19*(3), 254-275. doi: 10.1177/1362168814541735

Knightly, L. M. (2000). *Benefits of overhearing Spanish: Implications for second language pronunciation* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (304585572).

Koike, Y. (2014). Explicit pronunciation instruction: Teaching suprasegmentals to Japanese learners of English. In N. Sonda & A. Krause (Eds.), *JALT2013 Conference Proceedings*. Tokyo: JALT.

Kralova, Z., Skorvagova, E., Tirpakova, A., & Markechova, D. (2017). Reducing student teachers' foreign language pronunciation anxiety through psycho-social training. *System, 65*, 49-60. doi:10.1016/j.system.2017.01.001

Kramsch, C. (1997). Guest column: The privilege of the nonnative speaker. *Publications of the Modern language Association of America*, *112* (3), 359-369. Retrieved from https://files.eric.ed.gov/fulltext/ED481796.pdf

Kreidler, C. (2004). *The pronunciation of English* (2nd Edition). Oxford: Blackwell Publishing.

Kremenchugsky, Y. (2013). *The effect of listener background on the perception of foreign accent severity and intelligibility* (MSc. thesis). Retrieved from ProQuest Central; ProQuest Dissertations & Theses Global. (UMI No: 1114905892).

Kurhila, S. (2001). Correction in talk between native and non-native speaker.*Journal of Pragmatics*, *33*(7), 1083-1110. doi: 10.1016/S0378-2166(00)00048-5

Larsen-Freeman, D., (2003). *Techniques and principles in language teaching* (2nd Edition). Oxford: Oxford university press.

Lasagabaster, D., & Sierra, J. M. (2002). University students' perceptions of native and nonnative speaker teachers of English. *Language Awareness*, *11*(2), 132-142. doi: 10.1080/09658410208667051

Lee, J. (2009). *The effects of pronunciation instruction using duration manipulation on the acquisition of English vowel sounds by pre-service Korean EFL teachers* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (304918596)

Lee, J., Jang, J., & Plonsky, L. (2014). The effectiveness of second language pronunciation instruction:A meta-analysis. *Applied Linguistics*, *36*(3), 345-366. doi:10.1093/applin/amu040.

Lee, L., & Nusbaum, H. C. (1993). Processing interactions between segmental and suprasegmental information in native speakers of English and Mandarin Chinese. *Attention, Perception, &Psychophysics*, *53*(2), 157-165. Retrieved from https://link.springer.com/content/pdf/10.3758/BF03211726.pdf

Lee, S. T. (2008). *Teaching pronunciation of English using computer assisted learning software: An action research study in an institute of technology in Taiwan* (Doctoral dissertation, University of Reading). Retrieved from http://researchbank.acu.edu.au/cgi/viewcontent.cgi?article=1240&context=theses Australian Catholic University.

Lehiste, I. (1976). Suprasegmental features of speech. In N. J. Lass (Ed.) *Contemporary issues in experimental phonetics*, (pp. 225, 239). New York: Academic Press.

Leow, R. P. (1997). Attention, awareness, and foreign language behavior. *Language Learning, 47*(3), 467-505. doi: 10.1111/0023-8333.00017

Lepore, C. E. (2014). *Developing pronunciation skills at the introductory level: Motivating students through interpersonal audio discussions* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 1658786133).

Levis, J. (2005). Changing contexts and shifting paradigms in pronunciation teaching. *TESOL Quarterly*, *39*, 367–377. doi: 10.2307/3588485

Levis, J. (2007). Computer technology in teaching and researching pronunciation. *Annual Review of Applied Linguistics, 27*, 184-202. doi: 10.1017/S0267190508070098

Levis, J. M. (1999). Intonation in theory and practice, revisited. *TESOL Quarterly*, *33*(1), 37-63.doi: 10.2307/3588190

Li, D. C. S. (2009). Researching non-native speakers' views toward intelligibility and identity: Bridging the gap between moral high grounds and down-to-earth concerns. In F. Sharifan (Ed.), *English as an international language: Perspectives and pedagogical issues* (pp.81-118). Bristol: Multilingual Matters.

Li, Y. (2015). *TESOL versus SLP techniques for the development of L2 english pronunciation* (MSc. Thesis). Retrieved from ProQuest Central; ProQuest Dissertations & Theses Global. (UMI No: 1728919498).

Lippi-Green, R. (1997). *English with an accent: language, ideology, and discrimination in the United States.* New York: Routledge.

Liu, C. R. (2017). *The effect of raising awareness to prosodic features in speech through noticing techniques and visual feedback: A practitioner's approach* (Doctoral dissertation). Retrived from ProQuest Dissertations & Theses Global. (UMI No: 1911790383).

Lombana Giraldo, C. H. (2015). *Spanish-speaking students' perceptions of EFL as demonstrated in writing for an undergraduate English phonetics and phonology course in Bogotá Colombia* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3723430)

Lord, G. (2005). (How) can we teach foreign language pronunciation? On the effects of a Spanish phonetics course. *Hispania*, 557-567. doi: 10.2307/20063159

Lord, G. (2008). Podcasting communities and second language pronunciation. *Foreign Language Annals*, *41*(2), 364-379. **doi:** 10.1111/j.1944-9720.2008.tb03297.x

Ma, R. (2015). *The role of pronunciation in speaking test ratings*. (Unpublished MSc. thesis). Brigham Young University, Provo, Utah. Retrieved from https://scholarsarchive.byu.edu/etd/4426/

Maassen, B., & Povel, D. J. (1985). The effect of segmental and suprasegmental corrections on the intelligibility of deaf speech. *The Journal of the Acoustical Society of America*, *78*(3), 877-886. doi: 10.1121/1.392918

Macchi, M. J. (1985). Segmental and suprasegmental features and lip and jaw articulators (mandible) (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 303354132)

MacDonald, R. M. M. (2013). Counteracting age related effects in L2 acquisition: training to distinguish between French vowels (Doctoral dissertation, The University of Edinburg). Retrieved from https://www.era.lib.ed.ac.uk/bitstream/handle/1842/7979/MacDonald2013.pdf?sequence=2&isAllowed=y

Madden, M., & Moore, Z. (1997). ESL students' opinions about instruction in pronunciation. *TexasPapers in Foreign Language Education, 3*(1), 15–32. Retrieved from https://files.eric.ed.gov/fulltext/ED416716.pdf

Major, R. C. (1998). Interlanguage phonetics and phonology: An introduction. *Studies in Second Language Acquisition*, *20*(2), 131-137.

Major, R. C. (2001). *Foreign Accent: The Ontogeny and Phylogeny of Second Language Phonology*. Mahwah, New Jersey: LEA.

Malmeer, E., & Araghi, S. M. (2013). The impact of extensive reading programs on the pronunciation accuracy of EFL learners at basic levels. *Theory and Practice in Language Studies, 3*(8), 1434-1439. doi:10.4304/tpls.3.8.

Marinova-Todd, S. H., Marshall, D. B., & Snow, C. E. (2000). Three misconceptions about age and L2 learning. TESOL Quarterly, 34(1), 9-34. doi: 10.2307/3588095

Marks, J., (2007). *English Pronunciation in Use Elementary*. (1st Ed.) Cambridge: Cambridge University Press.

Martin, K. E. (2013). *Goals and priorities for English pronunciation instruction*. (MSc. Thesis, The University of Texas). Retrieved from 09/03/2018: https://repositories.lib.utexas.edu/bitstream/handle/2152/22724/MARTIN-MASTERSREPORT-2013.pdf

Marzá, N. E. (2014). Pronunciation and comprehension of oral English in the English as a foreign language class: key aspects, students' perceptions and proposals. *Journal of Language Teaching and Research*, *5*(2), 262. doi:10.4304/jltr.5.2.262-273

McBride-Chang, C., Bialystok, E., Chong, K. K., & Li, Y. (2004). Levels of phonological awareness in three cultures. *Journal of Experimental Child Psychology, 89*(2), 93-111. doi: 10.1016/j.jecp.2004.05.001

Medgyes, P. (1994). *The non-native teacher*. London: Macmillan.

Medgyes, P. (2001). When the teacher is a non-native speaker. *Teaching English as a Second or Foreign Language*, 3, 429-442. Retrieved from http://teachingpronunciation.pbworks.com/f/When+the+teacher+is+a+non-native+speaker.PDF

Mehrabi, K., & Mousavinia, S. R. (2013). A call for teaching pronunciation in Iranian schools. *International Journal of Academic Research in Progressive Education and Development 2*(1) 454-465. Retrieved from http://www.hrmars.com/admin/pics/1684.pdf

Mikuláštíková J. (2012). *Teaching pronunciation at secondary level* (MSc. Thesis, Olomouc Palacky University). Retrieved from https://theses.cz/id/svihrl/Master_Thesis_Teaching_Pronunciation.pdf

Miller, N. (2013). Measuring up to speech intelligibility. *International Journal of Language&Communication Disorders, 48*(6), 601-612. doi: 10.1111/1460-6984.12061

Moedjito, (2018). Improving EFL learners' pronunciation of English through quiz demonstration-practice-revision (QDPR). English Language Teaching, 11(1), 10-20. doi: 10.5539/elt.v11n1p10

Morley, J. (1991). The pronunciation component in teaching English to speakers of other languages. *TESOL Quarterly*, *25*(3), 481-520. doi: 10.2307/3586981

Morley, J. (1998). Trippingly on the tongue: Putting serious speech/pronunciation instruction back in the TESOL equation. *ESL Magazine*, *1*(6), 20-23.

Moyer, A. (2007). Do language attitudes determine accent? A study of bilinguals in the USA. *Journal of Multilingual and Multicultural Development,28*(6), 502-518. doi: 10.2167/jmmd514.0

Muñoz, A. F., (2007). *The design and creation of a bilingual phonemic awareness test for Puerto Rico* (MSc Thesis). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 1451316).

Munro, M. J. (2003). A Primer on Accent Discrimination in the Canadian Context. *TESL Canada Journal*, *20*(2), 38-51. Retrieved from https://files.eric.ed.gov/fulltext/EJ669737.pdf

Munro, M. J. (2008). Foreign accent and speech intelligibility. Phonology and second language acquisition,. In Edwards, J. G. H., & Zampini, M. L. (Eds.). Phonology and second language acquisition (pp. 193-218). John Benjamins Publishing.

Munro, M. J. (2010, September). *Intelligibility: Buzzword or buzzworthy.* In Proceedings of the 2nd Pronunciation in Second Language Learning and Teaching conference, Iowa State University.

Munro, M. J., & Derwing, T. M. (1995). Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. *Language Learning*, *45*(1), 73-97. doi: 10.1111/J.1467-1770.1995.Tb00963.X

Munro, M. J., & Derwing, T. M. (1999). Foreign accent, comprehensibility, and intelligibility in the speech of second language learners. *Language Learning, 49* (1), 285-310. doi: 10.1111/0023-8333.49.s1.8

Munro, M. J., & Derwing, T. M. (2006). The functional load principle in ESL pronunciation instruction: An exploratory study. *System, 34*(4), 520-531. doi: 10.1016/j.system.2006.09.004

Munro, M. J., & Derwing, T. M. (2011). The foundations of accent and intelligibility in pronunciation research. *Language Teaching, 44* (3), 316 327. doi: 10.1017/S0261444811000103.

Munro, M. J., Derwing, T. M., & Burgess, C. S. (2010). Detection of nonnative speaker status from content-masked speech. *Speech Communication, 52*(7), 626-637. doi: 10.1016/j.specom.2010.02.013

Munro, M., & Mann, V. (2005). Age of immersion as a predictor of foreign accent. *Applied Psycholinguistics, 26*(3), 311-341. doi:10.1017/S0142716405050198

Murphy, J. (1997): "Phonology courses offered by MATESOL programs in the U.S". *TESOL Quarterly 31*, 741-764. doi:10.2307/3587758

Murphy, J. M. (2014). Intelligible, comprehensible, non-native models in ESL/EFL pronunciation teaching. *System, 42*, 258-269. doi: 10.1016/j.system.2013.12.007

Murray, D. E., & Christison, M. (2011). *What English language teachers need to know. Volume I: Understanding learning*. New York: Routledge

Nair, R., Krishnasamy, R., & De Mello, G. (2017). Rethinking the teaching of pronunciation in the ESL classroom. *The English Teacher, 35* (14), 27-40. Retrieved from https://journals.melta.org.my/index.php/tet/article/view/312

Nelson, C. L. (2008). Intelligibility since 1969. *World Englishes, 27(*3-4), 297-308. doi: 10.1111/j.1467-971X.2008.00568.x

Nolan, F. (2006). *Intonation*. In B. Arts, & A. McMahon (Eds.), Handbook of English linguistics (pp. 433–457). Oxford: Blackwell.

O'Neal, G. (2015). Interactional intelligibility: the relationship between consonant modification and pronunciation intelligibility in English as a Lingua Franca in Japan. *Asian Englishes, 17*(3), 222-239. doi: 10.1080/13488678.2015.1041871

O'Brien, M. G. (2014). L2 Learners' assessments of accentedness, fluency, and comprehensibility of native and nonnative German speech. *Language Learning, 64*(4), 715-748. doi: 10.1111/lang.12082

Ospina Cortes, L. M. (2014). *Pronunciation development in the acquisition of adult ESL students' speaking skills: Implications for curriculum design.* (Doctoral dissertation).Retrieved from ProQuest Central; ProQuest Dissertations & Theses Global. (UMI No: 1288376910)

Östlund, U., Kidd, L., Wengström, Y., & Rowa-Dewar, N. (2011). Combining qualitative and quantitative research within mixed method research designs: a methodological review. *International journal of nursing studies, 48(*3), 369-383. doi. org/10.1016/j.ijnurstu.2010.10.005

Otlowski, M. (1998). Pronunciation: What are the expectations?. *The internet TESL journal, 4* (1), 115-129. Retrieved from http://iteslj.org/Articles/Otlowski-Pronunciation

Pallant, J. (2005). *SPSS survival manual: A step by step guide to data analysis using SPSS for Windows (Version 12)* (2nd Edition). Crows Nest, N.S.W.: Allen & Unwin.

Pardo, B. D. (2004). Can pronunciation be taught?: A review of research and implications for teaching. *Revista Alicantina de Estudios Ingleses, 17,* 6-38. doi: 10.14198/raei.2004.17.03

Park, H. (2008). *Phonological information and linguistic experience in foreign accent detection* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 288381995).

Park, M. S. (2015). Second Language Pronunciation Teaching: Insights from Research. *Working Papers in Applied Linguistics & TESOL, 15*(2), 45-47. doi: 10.7916/D8F76R6J

Peng, Z. E., & Wang, L. M. (2016). Effects of noise, reverberation and foreign accent on native and non-native listeners' performance of English speech comprehension. *The Journal of the Acoustical Society of America, 139*(5), 2772-2783. doi.org/10.1121/1.4948564

Pennington, M. (2006). *Phonology in context.* New York: Palgrave Macmillan.

Pennington, M. C. (1996). *Phonology in English language teaching: An international approach* (1st Ed.). London: Longman.

Pennington, M. C. (1999). Computer-aided pronunciation pedagogy: Promise, limitations, directions. *Computer Assisted Language Learning, 12*(5), 427-440. doi: 10.1076/call.12.5.427.5693

Pennington, M. C. (2007). The context of phonology: In M. C. Pennington (Ed.). *Phonology in context* (pp. 1-24). Basingstoke, NH: Palgrave McMillan.

Pennington, M., & Richards, J. C. (1986). Pronunciation revisited. *TESOL Quarterly. 20*(2). 207-225. doi: 10.2307/3586541

Pickering, L. (2006). Current research on intelligibility in English as a lingua franca. *Annual Review of Applied Linguistics, 26,* 219-233. doi:10.1017/S0267190506000110

Pickering, L. (2012). Second language speech production. The Routledge handbook of second language acquisition, 335-348.

Picone, J. (1996). *Fundamentals of speech recognition: A short course*. Institute for Signal and Information Processing, Mississippi State University.

Pierrehumbert, J. B. (1980). *The phonology and phonetics of English intonation* (Doctoral dissertation, Massachusetts Institute of Technology). Retrieved from https://dspace.mit.edu/handle/1721.1/16065

Pierrehumbert, J. B. (2003). Phonetic diversity, statistical learning, and acquisition of phonology. Language and speech, 46(2-3), 115-154. doi: 10.1177/00238309030460020501

Piske, T. & MacKay, I. (1999, August). *Age and L1 use e!ects on degree of foreign accent in English*. In Proceedings of the14th International Congress of Phonetic Sciences, San Francisco.

Piske, T., MacKay, I. R. A., and Flege, J. E. (2001). Factors affecting degree of foreign accent in an L2: A review. *Journal of Phonetics, 29*(2), 191-215. doi:10.006/jpho.2001.0134

Rajadurai, J. (2001). An investigation of the effectiveness of teaching pronunciation to Malaysian TESL students. *English TeachingForum 39*(3), 10-15. Retrieved from https://americanenglish.state.gov/files/ae/resource_files/01-39-3-c.pdf

Rajadurai, J. (2007). Intelligibility studies: A consideration of empirical and ideological issues. *World Englishes, 26,* 87–98. doi: 10.1111/j.1467-971X.2007.00490.x

Rajadurai, J. (2016). Pronunciation issues in non-native contexts: A Malaysian case study. *Malaysian Journal of ELT Research, 2*(1), 18. Retrieved from https://journals.melta.org.my/index.php/majer/article/view/170

Ramírez Verdugo, D. (2006). A study of intonation awareness and learning in non-native speakers of English. *Language Awareness, 15*(3), 141-159. doi: 10.2167/la404.0

Rasekhi Kolokdaragh, V. (2010, April). *ESL/EFL Learners' Perception of Their Pronunciation Needs and Strategies.* In 41st Annual State CATESOL Conference, Santa Clara,CA.

Reddy, Y.M., & Andrade, H. (2010). A review of rubric use in higher education, *Assessment & Evaluation in Higher Education, 35*(84), 435-448. doi: 10.1080/02602930902862859

Richards, J. C., & Renandya, W.A. (2002*). Methodology in language teaching, anthropology of current practice*. Cambridge: Cambridge University Press.

Roach, P., (2009). *English Phonetics and Phonology* (4th Edition). New York: Cambridge.

Roccamo, A. (2015). Teaching pronunciation in just ten minutes a day: A method for pronunciation instruction in first-semester german language classrooms. *Die Unterrichtspraxis /Teaching German, 48*(1), 59-83. doi: 10.1111/tger.10181

Rolle, J. R. (2002). *The Role of Communication in Effective Leadership*.Lousiana State University. Retrieved from https://files.eric.ed.gov/fulltext/ED467282.pdf

Ryder, J. F., Tunmer, W. E., & Greaney, K. T. (2008). Explicit instruction in phonemic awareness and phonemically based decoding skills as an intervention strategy for struggling readers in whole language classrooms. *Reading and Writing*, *21*(4), 349-369. Retrieved from https://link.springer.com/article/10.1007/s11145-007-9080-z

Saito, K. (2011). Examining the role of explicit phonetic instruction in native-like and comprehensible pronunciation development: An instructed SLA approach to L2 phonology. *Language awareness, 20*(1), 45-59. doi: 10.1080/09658416.2010.540326

Saito, K. (2012). Effects of instruction on L2 pronunciation development: A synthesis of 15 quasi-experimental intervention studies. *Tesol Quarterly*, *46*(4), 842-854. doi: 10.1002/tesq.67

Saito, K., & Lyster, R. (2012). Effects of form-focused instruction and corrective feedback on L2 pronunciation development of /ɹ/ by Japanese learners of English. *Language Learning*, *62*(2), 595-633. doi: 10.1111/j.1467-9922.2011.00639.x

Saito, K., & van Poeteren, K. (2012). Pronunciation-specific adjustment strategies for intelligibility in L2 teacher talk: Results and implications of a questionnaire study. *Language Awareness*, *21*(4), 369-385. doi: 10.1080/09658416.2011.643891

Saran, M., Seferoglu, G., & Cagiltay, K. (2009). Mobile Assisted Language Learning: English Pronunciation at Learners' Fingertips. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, *34*, 97-114. Retrieved from http://earsiv.cankaya.edu.tr:8080/xmlui/bitstream/handle/123456789/944/Saran,%20Murat.pdf?sequence=1

Sasanapradit, W. (2012). Using English audio-visual media to motivate the learing of English pronunciation in second-year English major students at Thaksin University. *Journal of Humanities and Social Sciences, Thaksin University)*, *7*(2), 115-136. Retrieved from http://www.huso.tsu.ac.th/huso_mag/journal/0702/070206DT.pdf

Schoonmaker-Gates, E. (2012). *Perception of foreign accent in Spanish by native and nonnative listeners: Investigating the role of VOT and speech rate* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 1037817264).

Seferoğlu, G. (2005). Improving students' pronunciation through accent reduction software. *BritishJournal of Educational Technology*, *36*(2), 303-316. doi: 10.1111/j.1467-8535.2005.00459.x

Selkirk, E. (1995). Sentence prosody: Intonation, stress, and phrasing. *The Handbook of Phonological Theory*, *1*, 550-569.

Şenel, M. (2006). Suggestions for beautifying the pronunciation of EFL learners in Turkey. *Journal of Language and Linguistic Studies*, *2*(1), 111-125. Retrieved from http://www.jlls.org/index.php/jlls/article/view/27

Sewell, A. (2010). Research methods and intelligibility studies. *World Englishes*, *29*(2), 257-269. doi: 10.1111/j.1467-971X.2010.01641.x

Seyedabadi, S., Fatemi, A. H., & Pishghadam, R. (2015). Towards better teaching of pronunciation: review of literature in the Area. *Mediterranean Journal of Social Sciences*, *6*(4), 76-81. doi: 10.5901/mjss.2015.v6n4s1p76

Shibuya, Y. (2005). Production and perception of consonant clusters in the L2 phonology of Japanese learners of English (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3202209)

Sifakis, N. C. (2014). Teaching pronunciation in the post-EFL era: Lessons from ELF and implications for teacher education. In J. D. D. M. Agudo, (Ed.), *English as a Foreign Language Teacher Education: Current perspectives and challenges.* (pp. 127-146). Amsterdam and New York: Rodopi.

Silvestri, L. M. (1997). *The effect of additional pronunciation instruction on students' confidence, motivation and overall comprehensibility in the second language classroom* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 304387902)

Simon, E. & Taverniers, M. (2011). Advanced EFL learners' beliefs about language learning and teaching: A comparison between grammar, pronunciation, and vocabulary. *English Studies, 92*(8), 896-922. doi: 10.1080/0013838X.2011.604578

Smakman, D. (2016). Pronunciation: Teach or ignore? In D.Smakman & L. Willemsen (Eds.), *Proceedings Van Schools tot Scriptie II*. Amsterdam: VU.

Smith, L. E. (1992). Spread of English and issues of intelligibility. In B. B. Kachru (Ed.), *The other tongue: English across cultures* (pp. 75- 90). Urbana: University of Illinois Press

Steed, W., & Cantero, D. M. (2018). First things first: exploring Spanish students' attitudes towards learning pronunciation in Australia. *The Language Learning Journal*, *46*(2), 103-113.doi: 10.1080/09571736.2014.963644

Stevick, E. W. (1978). Toward a practical philosophy of pronunciation: Another view. *TESOL Quarterly, 12,* 145-150. doi: 10.2307/3585605

Takagishi,R. (2012) Non-native English teachers' views towards pedagogic goals and models of pronunciation. *Asian Englishes, 15*(2), 108-135. doi: 10.1080/13488678.2012.10801333

Tanner, M., & Landon, M. (2009). The effects of computer-assisted pronunciation readings on ESL learners' use of pausing, stress, intonation, and overall comprehensibility. *Language Learning & Technology 13*(3), 51-65.

Tark, E. S. (2016). *Acquisition of Korean obstruents by english-speaking second language learners of korean and the role of pronunciation instruction* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 1846541911)

Tarone, E. E. (1973). Aspects of intonation in Black English. *American Speech, 48*(1/2), 29-36. doi: 10.2307/3087890

Tehrani, E. K., Vahdany, F., & Arjmandi, M. (2014). Is there any relationship between Iranian EFL learners' personality type and their pronunciation?. *Modern Journal of Language Teaching Methods, 4*(2), 75.

Tergujeff, E. (2013). *English pronunciation teaching in Finland*. (Doctoral dissertation). Retrieved from https://jyx.jyu.fi/dspace/bitstream/handle/123456789/41900/978-951-39-5322-5_vaitos03082013.pdf?sequence=1

Thomson, R. I., & Derwing, T. M. (2014). The effectiveness of L2 pronunciation instruction: A narrative review. *Applied Linguistics, 36*(3), 326-344. doi: 10.1093/applin/amu076

Tikkakoski, S. (2015). *Communicative language teaching as English pronunciation teaching method: Developing exercises* (MSc. Thesis, University of Oulu) Retrieved from http://jultika.oulu.fi/files/nbnfioulu-201602031107.pdf

Tlazalo Tejeda, A. C., & Basurto Santos, N. M. (2014). Pronunciation instruction and students' practice to develop their confidence in EFL oral skills. *Profile Issues in Teachers Professional Development, 16*(2), 151-170. doi: 10.15446/profile.v16n2.46146

Topal, I. H. (2017). *An analysis of the intonation patterns of if-clauses in Turkish English majors* (MSc thesis). Retrieved fromhttp://hdl.handle.net/11655/3319

Treiman, R., & Zukowski, A. (1991). Levels of phonological awareness. In S. A. Brady & D. P. Shankweiler (Eds.) *Phonological processes in literacy: A tribute to Isabelle Y. Liberman*, (pp. 67-83). New York: Routledge.

Trofimovich, P., & Gatbonton, E. (2006). Repetition and focus on form in processing L2 Spanish words: Implications for pronunciation instruction. *The Modern Language Journal*, *90*(4), 519-535. doi: 10.1111/j.1540-4781.2006.00464.x

Trofimovich, P., Lightbown, P. M., Halter, R. H., & Song, H. (2009). Comprehension-based practice: The development of L2 pronunciation in a listening and reading program. *Studies in Second Language Acquisition*, *31*(4), 609-639. doi:10.1017/S0272263109990040

Tsiartsioni, E. (2017). Can pronunciation be taught? Teaching English speech rhythm to Greek students. *Selected Papers on Theoretical and Applied Linguistics, 19*, 447-458. Retrieved from http://www.enl.auth.gr/symposium19/19thpapers/043_Tsiartsioni.pdf

Tsurutani, C. (2008). A Computer Program for Pronunciation Training and Assessment in Japanese Language Classrooms–Experimental Use of 'Pronunciation Check'. *Japanese Studies*, *28*(3), 305-315.doi:10.1080/10371390802446869

Ueno, N. (1995). *Teaching English pronunciation to Japanese English majors: A comparison of a suprasegmental-oriented and a segmental-oriented teaching approach* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 9527543)

Ukrainetz, T. A., Nuspl, J. J., Wilkerson, K., & Beddes, S. R. (2011). The effects of syllable instruction on phonemic awareness in preschoolers. *Early Childhood Research Quarterly*, *26*(1), 50-60. doi:10.1016/j.ecresq.2010.04.006

Underhill, A. (1994). *Sound foundations*. Oxford: Heinemann.

Varasarin, P. (2007). *An action research study of pronunciation training, language learning strategies and speaking confidence* (Doctoral dissertation, Victoria University). Retrieved from http://vuir.vu.edu.au/1437/1/Varasarin.pdf

Varol, M. (2012). *The influence of Turkish sound system on English pronunciation* (MSc. thesis). Retrieved from ProQuest Dissertations & Theses Global. (UMI No:1532688)

Vela-Izquierdo, A. (2015). *The effect of opportunistic pronunciation teaching on learners' speech intelligibility* (Undergraduate thesis, University of Piura). Retrieved from https://pirhua.udep.edu.pe/bitstream/handle/11042/3037/EDUC_057.pdf?sequence=1

Venkatagiri, H. S., & Levis, J. M. (2007). Phonological awareness and speech comprehensibility: An exploratory study. *Language awareness*, *16*(4), 263-277. doi: 10.2167/la417.0

Wells, J. C. (2005). Goals in teaching English pronunciation. *English pronunciation models: A changing scene*, 101-110. Retrieved from https://www.phon.ucl.ac.uk/home/wells/poznan03_wells.pdf

Wennerstrom, A. (2001). *The music of everyday speech: Prosody and discourse analysis*. New York: Oxford University Press.

Whitehead, R. L., Metz, D. E., Girardi, E., Irwin, J., Krigsman, A., Swanson, C., ... & Schiavetti, N. (2008). Suprasegmental Characteristics of Speech Produced during Simultaneous Communication by Inexperienced Signers. *Journal of deaf studies and deaf education*, *14*(3), 362-370. doi: 10.1093/deafed/enn043

Wong, R. (1987). *Teaching pronunciation: Focus on English rhythm and intonation*. Englewood Cliffs, NJ: Prentice Hall Regents.

Yao, H. (2008). *An interview study of native Chinese-speaking English as a foreign language university students experience of acquiring English pronunciation* (Doctoral

dissertation), Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3303998)

Yates, L., & Zielinski, B. (2009). *Give it a go: Teaching Pronunciation to Adults*. Sydney: Macquarie University.

Yeh, S. S. (2004). An evaluation of two approaches for teaching phonemic awareness to children in Head Start. *Early Childhood Research Quarterly, 18*(4), 513-529. doi: 10.1016/j.ecresq.2003.09.009

Yilmaz, M. (2014). The awareness of phonetics in ELT. *Procedia-Social and Behavioral Sciences, 116*, 2765-2769. doi: 10.1016/j.sbspro.2014.01.652

Yoshida, K. (2010). Effects of oral practice on pronunciation: Focusing on word accentuation (Doctoral dissertation) Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3702794)

Yule, G. (2010). *The study of language (*4th Edition). Cambridge: Cambridge university press.

Zamora, J. E. G. (2015). *Teaching and learning L2 pronunciation: A closer look at classroom and extra-classroom factors in the development of comprehensibility in ESL learners* (Doctoral dissertation). Retrieved from ProQuest Dissertations & Theses Global. (UMI No: 3702794)

Zemanova, S. (2007). *Teaching English pronunciation to adult learners*. (Diploma thesis, University of Masaryk). Retrieved from https://is.muni.cz/th/80701/pedf_m/%3E?lang=en

Zhang, L. (2004). Awareness-raising in the TEFL phonology classroom. *ITL-International Journal of Applied Linguistics*, *145*(1), 219-268. Retrieved from https://www.researchgate.net/publication/261699058/download

Zwier, L. J.(2007). *Inside Reading 2 Student Book Pack: The Academic Word List in Context* (1st Ed.). Oxford University Press: USA http://www.asha.org/public/speech/development/accent_mod.htm#what

APPENDICES

APPENDIX-1. Pronunciation Attitude Inventory

Pronunciation Attitude Inventory

Dear Participant,

This survey is related to a PhD project. It consists of a language background questionnaire to give us a better understanding of your experience with languages and a scale. The scale is used to investigate your attitudes toward pronunciation. All your responses to these scales will be confidential and the researcher will be the only person with access to individual surveys which will be anonymous at the student level. Participation in this research is completely voluntary.

Thanks for your participation.

PhD Student: Canan AKSAKALLI

Gender: Male ☐ Female ☐

For each item, please choose the option that best describes your opinion ***about pronunciation***

never or almost never true of me (totally disagree)	**usually not true of me**	**somewhat true of me**	**usually true of me**	**always or almost always true of me (totally agree)**
1	**2**	**3**	**4**	**4**

1.	I'd like to sound as native as possible when speaking English.	**1 2 3 4 5**
2.	Acquiring proper pronunciation in English is important to me.	**1 2 3 4 5**
3.	I will never be able to speak English with a good accent.	**1 2 3 4 5**
4.	I believe I can improve my pronunciation skills in English.	**1 2 3 4 5**
5.	I believe more emphasis should be given to proper pronunciation in class.	**1 2 3 4 5**
6.	One of my personal goals is to acquire proper pronunciation skills and preferably be able to pass as a near-native speaker of the language.	**1 2 3 4 5**

7.	I try to imitate English speakers as much as possible.	**1 2 3 4 5**
8.	Communicating is much more important than sounding like a native speaker of English.	**1 2 3 4 5**
9.	Good pronunciation skills in English are not as important as learning vocabulary and grammar.	**1 2 3 4 5**
10.	I want to improve my accent when speaking English.	**1 2 3 4 5**
11.	I'm concerned with my progress in my pronunciation of English.	**1 2 3 4 5**
12.	Sounding like a native speaker is very important to me.	**1 2 3 4 5**
13.	I do not practice a native-like accent in class because of how other students in class would perceive it.	**1 2 3 4 5**

APPENDIX-2. Interview Questions for Pre-Service EFL Teachers

Interview Questions

1. A Do you perceive the pronunciation instruction (PI) that you received as an important part of your language learning or not? Why?

B In what ways and to what extend did PI affect your pronunciation development?

2.Which aspects of pronunciation teaching are more important to you? Segmental or prosody, why?

3.How do you feel yourself in pronunciation or speaking classes?

4.A) What are the most challenging or difficult aspects of pronunciation? Why?

B) Which aspects of pronunciation did you find more problematic in your pronunciation learning process?

5. What is the best way (ways) to learn pronunciation?

6. What should be the main aims of pronunciation teaching process?

APPENDIX-3. Reading Aloud Text

Most journalists believe they have an ethical responsibility to be as accurate as possible. Sometimes that involves fact-checking, but sometimes it cannot. Daily newspapers do not generally employ separate fact-checkers. Reporters are expected to get the facts right in the copy they submit. A copy editor might occasionally question a "fact" that seems incorrect, but newspapers operate under severe time restrictions. Re-checking most information is usually not possible.

For media that have less pressing deadlines, the story is different. Some magazine fact-checking departments are legendary for their thoroughness. *The New Yorker*magazine of the mid-20th century had a reputation for fact-checking excellence. Then things declined a bit in the 1970s and 1980s. In the 1990s, managing editor Tina Brown, emphasizing accuracy, hired the people necessary to restore the department's glory. According to one rumor, there was an article that mentioned a singer had gestured with both arms. An eager fact-checker asked the singer whether he, in fact, has two arms. Even other publications granted that *The New Yorker* was the fact-checking champion Jobs in the fact-checking department at the magazine became a desirable stepping-stone to high-level editorial jobs.

APPENDIX-4. Pronunciation Assessment Rubric

This rubric is related to a PhD project. It consists of criteria regarding language learners' pronunciation performances. The rubric is used to rate the categories about language learners' pronunciation skills. All your ratings to these categories will be confidential and the researcher will be the only person with access to the rubrics. Participation as a rater in this research is completely voluntary.

Thank you for your participation

PhD Student: Canan AKSAKALLI

Student's Name:

Category	Score	
Vowels	**5**	Mispronounced vowels are rare and cause no distraction or miscommunication.
	4	Vowel errors occur occasionally (especially in vowel dense contexts) but do not lead to miscommunication.
	3	Vowel errors (such as /iː, ɪ/) occur frequently and inconsistently but do not usually cause miscommunication.
	2	Some vowels (such as /i, ɪ/, /e, eɪ/, /ɑː, a,/) are consistently confused or mispronounced and cause miscommunication or distraction.
	1	Vowel errors (such as /ɛ, æ/, /ɑ, ʌ/, /u, ʊ/, /ɔ, oʊ/) are frequent and distracting and often cause miscommunication.
Consonants	**5**	Mispronounced consonants are rare and cause no distraction or miscommunication.
	4	Most consonants are pronounced correctly most of the time, but troubles with consonant clusters, word-final consonants, etc. persist.
	3	Frequent but inconsistent consonant errors occur, such as /w, v/, /s, z/
	2	Some consonants (such as /f, h/, /t, d/, /k, g/) are consistently confused or mispronounced and cause miscommunication or distraction.
	1	Consonant errors (such as /p, b/, /p, f/, /m, n/ /n, l/, /l, r/ θ, ð/) are frequent and distracting and cause miscommunication.
Intonation	**5**	A variety of intonation patterns effectively reflect the speakers' intent (e.g., questioning, apology, sarcasm, etc.)
	4	Intonation is employed effectively to express emotion, but one particular pattern is overused.
	3	Intonation is usually correct but occasionally misleads listeners.
	2	Rising and falling intonation patterns are sometimes used appropriately but often impede understanding.
	1	Intonation is used inappropriately and interferes with communication or is distracting.
WordStress	**5**	Misplaced word stress is rare and causes no distraction or miscommunication.
	4	Misplaced word stress is rare and it only occurs in multisyllabic words.
	3	Misplacement happens in a variety of words, but meaning is not hindered.
	2	Due to frequent and confusing word stress errors, context is greatly needed for the listener to understand the intended meaning.
	1	Frequent word-stress misplacement causes miscommunication and annoys listeners.
Comprehensibility	**5**	Almost error-free. Awareness of accent. Genuine effort to sound like native speaker.
	4	Comprehensible, generally correct. Occasional error.
	3	Frequent errors that confuse listener and require guessing at meaning
	2	Many errors that interfere with Comprehensibility.
	1	Most utterances contain errors. Many utterances are incomprehensible. Little communication.
Total Score:		

APPENDIX-5. Pronunciation Rubric Assessment Tool

PRONUNCIATION RUBRIC ASSESSMENT TOOL

This tool is related to the pronunciation assessment rubric for a PhD project. The rubric was adapted from other rubrics cited in Phd thesis and will be used to assess language learners' pronunciation performances. It consists of categories regarding language learners' pronunciation skills. Your thoughts are needed to provide content validity. All your responses to this tool will be confidential and the researcher will be the only person with access to the rubric assessment tools.

Thank you for your participation

PhD Student: Canan AKSAKALLI

		Essential	**Useful But Not Essential**	**Should Be Omitted**
Vowels	Mispronounced vowels are rare and cause no distraction or miscommunication.			
	Vowel errors occur occasionally (especially in vowel dense contexts) but do not lead to miscommunication.			
	Vowel errors (such as /iː, ɪ/) occur frequently and inconsistently but do not usually cause miscommunication.			
	Some vowels (such as /i, ɪ/, /e, eɪ/, /ɑː, a,/) are consistently confused or mispronounced and cause miscommunication or distraction.			
	Vowel errors (such as /ɛ, æ/, /ɑ, ʌ/, /u, ʊ/, /ɔ, oʊ/) are frequent and distracting and often cause miscommunication.			
Consonants	Mispronounced consonants are rare and cause no distraction or miscommunication.			
	Most consonants are pronounced correctly most of the time, but troubles with consonant clusters, word-final consonants, etc. persist.			
	Frequent but inconsistent consonant errors occur, such as /w, v/, /s, z/			
	Some consonants (such as /f, h/, /t, d/, /k, g/) are consistently confused or mispronounced and cause miscommunication or distraction.			
	Consonant errors (such as /p, b/, /p, f/, /m, n/ /n, l/, /l, r/ θ, ð/) are frequent and distracting and cause miscommunication.			
Intonation	A variety of intonation patterns effectively reflect the speakers' intent (e.g., questioning, apology, sarcasm, etc.)			
	Intonation is employed effectively to express emotion, but one particular pattern is overused.			
	Intonation is usually correct but occasionally misleads listeners.			

	Rising and falling intonation patterns are sometimes used appropriately but often impede understanding.			
	Intonation is used inappropriately and interferes with communication or is distracting.			
WordStress	Misplaced word stress is rare and causes no distraction or miscommunication.			
	Misplaced word stress is rare and it only occurs in multisyllabic words.			
	Misplacement happens in a variety of words, but meaning is not hindered.			
	Due to frequent and confusing word stress errors, context is greatly needed for the listener to understand the intended meaning.			
	Frequent word-stress misplacement causes miscommunication and annoys listeners.			
Comprehensibility	Almost error-free. Awareness of accent. Genuine effort to sound like native speaker.			
	Comprehensible, generally correct. Occasional error.			
	Frequent errors that confuse listener and require guessing at meaning			
	Many errors that interfere with Comprehensibility.			
	Most utterances contain errors. Many utterances are incomprehensible. Little communication.			

APPENDIX-6. Syllabus for Pronunciation Course

PRONUNCIATION COURSE SYLLABUS

Basic information

Instructor: Canan AKSAKALLI
Class Time: Monday -Friday

Course Description:

This class is designed to help students whose native language is not English to learn English pronunciation. The students will study and practice at both the segmental and suprasegmental level. The students will also develop awareness of what is possible in English pronunciation through interaction with the instructor -and with each other in pairs and in small groups. The course will use a variety of pronunciation and linguistic texts and related listening material

Materials:

- English Pronunciation in Use
- Other supplementary materials and handouts will be provided by the teacher.

Your course grade will be based on the following:

Quizzes: 10%

Class Participation: 10%

Homework Assignments: 10%

Written Exam: 70%

Course Schedule

Course book: English Pronunciation in Use

Week 1 — 26/9/2016 - 30/9/2016	**Introduction to pronunciation** **Implementation of pretests**
Week 2 — 03/10/2016 - 07/10/2016	**Section A *Sounds and spelling*** **1** *How many letters, how many sounds?* Spelling and pronunciation **2** *Pizza for dinner* /iː/ and /ɪ/ **3** *A spoonful of sugar* /uː/ and / ʊ/ **4** *Father and mother* /ɑː/ and / ʌ/
Week 3— 10/10/2016 - 14/10/2016	**5***A dog in the corner* /ɒ/ and / ɔː/ **6***Bread and jam* /e/ and / æ/ 7 *My birthday's on Thursday* / ɜː/

	8 *Here and there* / ɪə/ and /eə/
Week 4— 17/10/2016 - 21/10/2016	9 *Have a great time!* /eɪ/, /aɪ/ and / ɔɪ/ 10 *Old town* /əʊ / and /aʊ / 11 *Pack your bags* /p/ and /b/ 12 *Twenty days* /t/ and /d/
Week 5— 24/10/2016 - 28/10/2016	13 *Cats and dogs* /k/ and /g/ 14 *November the first* /f/ and /v/ 15 *Both together* /ð/ and /θ/ 16 *It's the wrong size, isn't it?* /s/ and /z/
Week 6— 31/10/2016 - 04/11/2016	17 *Fresh fish, usually* / ʃ / and /ʒ/ 18 *Chips and juice* /tʃ / and /dʒ/ 19 *My hungry uncle* /m/, /n/ and / ŋ / 20 *How many hours?* /h/
Week 7— 07/11/2016 - 11/11/2016	21 *That's life!* /l/ 22 *What terrible weather!* /r/ 23 *What's the news?* /w/ and /j/ 24 *Sunglasses or umbrella?* Consonant groups in the middle of words
Week 8— 14/11/2016 - 18/11/2016	25 *Train in the rain* Consonant groups at the beginning of words 26 *Pink and orange* Consonant groups at the end of words 27 *Last week* Consonant groups across words
Week 9— 21/11/2016 - 25/11/2016	**SECTION B *Syllables and words*** 28 *One house, two houses* Syllables 29 *Wait a minute –where's the waiter?* Strong and weak vowels 30 *Single or return?* Stress in two-syllable words 31 *Begin at the beginning* Stress in longer words 32 Where's my checklist? Stress in compound words
Week 10— 28/11/2016 - 02/12/2016	**SECTION C *Phrases, sentences and grammar*** 33 *Phrases and pauses* Reading aloud 34 *Speak it, write it, read it* Linking words together 1 35 *Me and you, you and me* Linking words together 2
Week 11— 05/12/2016 - 09/12/2016	36 *Take me to the show, Jo* Rhythm 37 *Hey, wait for me!* Strong and weak forms 1: Pronouns 38 *And what's his name?* Strong and weak forms 2: Possessives, conjunctions, prepositions
Week 12— 12/12/2016 - 16/12/2016	39 *There's a spider* Strong and weak forms 3: Articles, comparatives, 'there' 40 *Who was that?* Strong and weak forms 4: Auxiliary

	verbs 41 *They're here!* Contractions 42 *It's George's birthday* Pronouncing -s endings 43 *I looked everywhere* Pronouncing past tenses
Week 13— 19/12/2016 - 23/12/2016	**SECTION D *Conversation*** 44 *Not half past two, half past three* Intonation for old and new information 45 *And suddenly …* Intonation in storytelling 46 *Really? That's amazing!* Being a good listener 47 *I know when it is, but not where* Important words in conversation 1
Week 14— 26/12/2016 - 30/12/2016	48 *Finished? I've just started!* Important words in conversation 2 49 *No, thanks, I'm just looking* Intonation in phrases and sentences 1 50 *Fine, thanks* Intonation in phrases and sentences 2

CURRICULUM VITAE

Personal Information

Name Surname: Canan Aksakallı

Place of Birth / Date of Birth: Erzurum/ 02.09.1985

Education

Primary Education: Nihat Kitapçı İlköğretim Okulu - 1996

Secondary Education: Nevzat Karabağ Anadolu Öğretmen Lisesi - 2003

Bachelor's Degree: Atatürk University, Faculty of Education, ELT Department, 2007

M.A. Degree: Ataturk University, Institute of Education Sciences, FLE Department, 2011

PhD Degree: Ataturk University, Institute of Education Sciences, FLE Department, 2018

Professional Qualifications:

Languages: English, German

Employment History:

2007- (still continuing): Atatürk University – School of Foreign Languages- Instructor of English Language

Contact Information:

Address: Atatürk Üniversitesi Yabancı Diller Yüksekokulu Yakutiye Erzurum

e-mail: canankaraduman@atauni.edu.tr

cananaksakalli@gmail.com