# AN ANALYSIS OF THE INTONATION PATTERNS OF IF-CLAUSES IN TURKISH ENGLISH MAJORS

# İNGİLİZ DİLİ EĞİTİMİ ANABİLİM DALI ÖĞRENCİLERİNİN ŞART CÜMLELERİNDEKİ TONLAMA ÖRÜNTÜLERİNİN ÇÖZÜMLENMESİ

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**KABUL ve ONAY**

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İbrahim Halil TOPAL'ın hazırladığı "An Analysis of the Intonation Patterns of If-Clauses in Turkish English Majors" başlıklı bu çalışma jürimiz tarafından **Yabancı Diller Eğitimi Anabilim Dalı, İngiliz Dili Eğitimi Bilim Dalı'nda Yüksek Lisans** olarak kabul edilmiştir.

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07/03/2017

Öğrencinin Adı SOYADI
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## ETHICS

In this thesis study, prepared in accordance with the spelling rules of Graduate School of Educational Sciences of Hacettepe University;

I declare that

- all the information and documents have been obtained in the base of the academic rules
- all audio-visual and written information and findings have been presented according to the rules of scientific standards
- in case of using other works, related studies have been cited in accordance with the scientific standards
- all cited studies have been fully referenced
- I did not do any distortion in the data set
- and any part of this thesis has not been presented as any other thesis study at this or any other university.

İbrahim Halil TOPAL

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**İNGİLİZ DİLİ EĞİTİMİ ANABİLİM DALI ÖĞRENCİLERİNİN ŞART CÜMLELERİNDEKİ TONLAMA ÖRÜNTÜLERİNİN ÇÖZÜMLENMESİ**

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## ÖZ

Bu çalışma, öncelikli olarak hizmet öncesi Türk İngilizce öğretmenlerinin İngilizce şart cümlelerindeki tonlama örüntülerini algılama ve kullanmalarındaki yeterlilik seviyelerini incelemeyi amaçlamıştır. Bununla beraber, konuşmalarında herhangi bir tonlama hatasının bulunması halinde hem görsel hem de işitsel olarak birincil vurgu, ses yüksekliği örüntüleri ve duraklama sesbirimlerinin tanınması ve kullanılması ile ilgili çok çeşitli alıştırmaları kapsayan ve *İşitsel Sesletim Modeli* (Demirezen, 2003,2004) ve *Dilbilgisi Tonlama Modeli*nden (Cauldwell & Hewings, 1996; Hahn, 2004) faydalanan düzeltici öğretim oturumları aracılığıyla bu hataları iyileştirmeyi amaçlamıştır. Çalışma, İngilizce öğretmen adaylarının katılımlarıyla (S=61) Türkiye'deki bir devlet üniversitesinin İngiliz Dili ve Eğitimi Bölümü'nde yürütülmüş ve veri 2015-2016 akademik yılı Bahar döneminde toplanmıştır. Bu çalışmanın amaçlarına ulaşmak için ön-test son-test deneysel yöntem kullanılmış ve bu sebeple katılımcılara hem yazılı hem de sözlü ön-testler ve son-testler verilmiştir. Birincisi, katılımcıların İngilizcedeki şart cümlelerindeki tonlama örüntülerini algılamadaki yeterlilik seviyelerini değerlendirmek; ikincisi ise katılımcıların İngilizcedeki şart cümlelerinde doğru tonlama örüntülerini kullanıp kullanamadıklarını ortaya çıkarmak için verilmiştir. Yazılı ön-test için, katılımcılara güvenirliği Cronbach alpha istatistiki analizle 0,81 puanla sağlanan ve ana veri toplama aracını oluşturan 36 çoktan seçmeli sorudan oluşan bir test; sözlü ön-test içinse güvenirliği Kuder-Richardson 20 (KR-20) Formülü ile 0,81 puanla sağlanan 36 cümlelik bir bütünce verilmiştir. Yazılı ön-testte, katılımcıların 36 çoktan seçmeli soru aracılığıyla şart cümlelerindeki tonlama örüntülerini tanımaları beklenirken sözlü ön-testte bütüncedeki 36 cümleyi yalıtımlı ve stressiz bir ortamda okuyup seslerini kaydetmeleri istenmiştir. Katılımcılar daha sonra çeşitli işitsel-görsel alıştırmalardan faydalanarak şart cümlelerindeki birincil vurgu, ses yüksekliği örüntüleri ve duraklama sesbirimlerini tanıma ve kullanmalarıyla ilgili alıştırma

yaptıkları iyileştirme derslerine tabi tutulmuşlardır. İyileştirme öğretim oturumlarını müteakip iki hafta sonra, katılımcılara aynen ön-testlerde olduğu gibi yazılı ve sözlü son-test verilmiştir. Katılımcıların ses kayıtlarının toplanması e-posta aracılığıyla gerçekleşmiş, değerlendirilmesi ise iki seçenekli bir ölçeğe göre biri araştırmacının kendisi olmak üzere üç farklı değerlendiriciler tarafından gerçekleşmiştir. Değer-biçiciler arası güvenirlik IBM SPSS sürüm 22 aracılığıyla hesaplanmış ve sınıf içi ilgileşim katsayısı 0.90 üzeri puan olarak belirlenmiştir. Katılımcıların ön-test ve son-test puanları arasında istatistiki olarak önemli bir fark olup olmadığını bulmak için eşleştirilmiş örneklemler T-testi uygulanmıştır. Şart cümlelerindeki birincil vurgu, ses yüksekliği örüntüleri ve duraklama sesbirimlerini algılama ve birincil vurgu ve duraklama sesbirimlerini kullanma açısından, katılımcıların yeterliliklerinde önemli bir gelişme olduğu bulunmuştur. Ayrıca katılımcıların tonlamayla ilgili problemlerinin düzeltilmesi hususuyla ilgili düzeltici öğretim oturumlarının etkili olduğu ortaya çıkarılmıştır.

**Anahtar Sözcükler:** Tonlama, birincil vurgu, ses yüksekliği örüntüleri, duraklama sesbirimleri, sesbilimsel yeterlik, meta-sesbilimsel farkındalık, İşitsel Sesletim Modeli, Dilbilgisi Tonlama Modeli, Söylem Tonlama Modeli, öğretmen eğitimi, sesbilgisel hafıza, şart cümleleri.

**Danışman:** Prof. Dr. Mehmet DEMİREZEN, Ufuk Üniversitesi, Yabancı Diller Eğitimi Bölümü, İngiliz Dili Eğitimi Anabilim Dalı

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## ABSTRACT

The present study primarily aims at investigating the level of competence of pre-service Turkish teachers of English in the perception and employment of intonation patterns of *If-clauses* in English. It further aims at remediating any occurrences of intonational errors in their speech through remedial training sessions which utilize Audio Articulation Method (Demirezen, 2003, 2004) and Grammar Intonation Model (Cauldwell & Hewings, 1996; Hahn, 2004) and encompass a wide range of exercises about the recognition and employment of primary stress phoneme, pitch patterns and juncture phonemes of *If-clauses* both auditorily and visually. The study was conducted at the Department of English Language Teaching (ELT) of a state university in Turkey, with the participation of prospective English as a Foreign Language (EFL) teachers (N=61) and data were gathered in the spring term of 2015-2016 academic year. A pre-test/post-test experimental design was utilized to reach the goals of this study and the participants therefore were given both written and oral pre-tests and post-tests. The participants were given the pre-test to assess their level of competence in the perception of intonation patterns of *If-clauses* in English while the latter was given for finding out whether the participants could employ the accurate intonation patterns of *If-clauses* in English. For the written pre-test, the participants were given a test of 36 multiple-choice questions as the primary means of instrument for data collection, the reliability of which was maintained with a score of 0.81 utilizing Cronbach's alpha statistical analysis while for the oral pre-test, the participants were given a corpus of 36 sentences, the reliability of which was sustained with a score of 0.81 utilizing Kuder-Richardson Formula 20 (KR-20). In the written pre-test, the participants were expected to recognize the intonation patterns of *If-clauses* through 36 multiple-choice questions while for the oral pre-test they were asked to record their voices in an insulated and stress-free environment during the articulation of 36

sentences in the corpus. The participants were then subject to treatment classes during which they practiced the recognition and employment of primary stress, pitch patterns and juncture phonemes of *If-clauses* utilizing various kinds of audio-visual exercises. Within two weeks following the remedial training sessions, the participants were given both written and oral post-tests which were administered in the same manner as in both pre-tests. The collection of recordings from the participants occurred through e-mail and the evaluation of the recordings were realized by three different human raters, one of whom is the researcher, in the form of a dichotomous scale. The inter-rater reliability was calculated by IBM SPSS version 22 and established with the score of over 0.90 intraclass correlation coefficient. In order to find out whether there was a statistically significant difference between the pre-test and post-test scores of the participants, Paired-Samples T-test was conducted. It was discovered that there was a major improvement in the competence of the participants in terms of perceiving the primary stress, pitch patterns and juncture phonemes and employing the primary stress and juncture phonemes of *If- clauses*. It was further discovered that remedial training sessions were proved to be effective regarding the amelioration of the participants' intonational problems.

**Key Words:** intonation, primary stress, pitch patterns, juncture phonemes, phonological competence, metaphonological awareness, Audio-Articulation Model; Grammar Intonation Model, Discourse Intonation Model, teacher education, phonetic memory, conditional sentences

**Advisor:** Prof. Dr. Mehmet DEMİREZEN, Ufuk University, Department of Foreign Language Education, Division of English Language Education

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## LIST OF SYMBOLS AND ABBREVIATIONS

**EFL:** English as a Foreign Language

**ELT:** English Language Teaching

**AAM:** Audio Articulation Method

**GIM:** Grammar Intonation Model

**MA:** Master of Arts

**DIM:** Discourse Intonation Model

**CLT:** Communicative Language Teaching

**CA:** Communicative Approach

**NSs:** Native Speakers

**NNSs:** Non-native Speakers

**ESL:** English as a Second Language

**CEFR:** Common European Framework of Reference for Languages

**ITAs:** International Teaching Assistants

**KR-20:** Kuder and Richardson Test – 20

**SPSS:** Statistical Package for Social Sciences

**L1:** Native Language

**L2:** Target Language

**/ˊ/:** Primary Stress Phoneme

**/ˆ/:** Secondary Stress Phoneme

**/ˋ/:** Tertiary Stress Phoneme

**/˘/:** Weak Stress Phoneme

**/1/:** Low Pitch Phoneme

**/2/:** Normal Pitch Phoneme

**/3/:** High Pitch Phoneme

**/4/:** Extra High Pitch Phoneme

**/↘/:** Falling Juncture Phoneme

**/↗/:** Rising Juncture Phoneme

**/→/:** Sustained Juncture Phoneme

**/↗↘/:** Rise-Fall Juncture Phoneme

**/↘↗/:** Fall-Rise Juncture Phoneme

# 1. INTRODUCTION

Language teaching has been subject to the influences of paradigm shifts, leading to changes in focus in teaching languages. With the emergence of each consecutive theory, a different area or skill of language has gained prominence in the realm of foreign language teaching. In promoting those areas or skills, support networks such as academics and educationalists have played a significant role. That simply accounts for why pronunciation hasn't been scrutinized until the beginning of the twentieth century as much importance was given to grammar and vocabulary rather than pronunciation. With this shift, a more systematic approach was adopted towards teaching pronunciation. Now that pronunciation has been studied to some extent, it was now time, with the emanation of communicative competence (Hymes, 1972), for a more in-depth approach to teach productive skills.

However, the need for a more productive approach to language teaching brings with itself the strenuous process of language learning on behalf of language learners. Either the difficulty of the subject or lack of proficiency of teachers has been the culprit of ignorance of English language on both segmental and suprasegmental levels in second and foreign language teaching pedagogies. For Turkish learners of English, it is the typology of languages which makes it demanding to be proficient in suprasegmental phonetics of English as Turkish is a syllable-timed language while English is stress-timed. Similarly, lack of increased opportunities to use the language caused Turkish learners of English to confine their use of language within the borders of classes or schools at best. The consequences of such attitude have generated a language community who are oblivious to concepts such as communicative competence or learner autonomy.

In line with the arguments made so far, a further argument can be made over the disregard for teaching suprasegmentals, more specifically, intonation. Considering the significance of intonation in oral communication (Brazil et al., 1980; Munro & Derwing, 1995; Thompson, 1995; Celce-Murcia et al., 1996; Wennerstrom, 1998; Levis, 1999, 2002; Jenkins, 2004; Levis & Pickering, 2004), more conscious steps should be taken towards teaching it. In other words, English as a foreign language (EFL) learners should be offered suprasegmental instruction intentionally and

systematically, bearing in mind the importance attached to intonation. Concordantly, intonation instruction possesses an indispensable position in foreign language learning and teaching settings.

Regarded by a number of researchers (Nida, 1957; Roach, 1991; Taylor, 1993; Dalton & Seidlhofer, 1994; Demirezen, 2009) as one of the most arduous areas in learning a foreign language, intonation thereby requires unequivocal attention in terms of studying and teaching. Within the scope of intonation, nuclear stress, pitch variations and pauses are the three foremost elements which have been principally studied (Brazil et al., 1980; Crystal, 1981; Roach; 1983; Cruttenden, 1986; Underhill, 1994; Levis, 1999; Seferoğlu, 2005; Hişmanoğlu, 2012; Demirezen, 2008, 2009, 2014, 2015a, 2015b, 2015c, 2015d, 2015e) and considered to be of paramount importance in terms of intelligibility in spoken interaction (Morley, 1991; Harmer, 2001; Jenkins, 2002; Celce-Murcia et al., 2010; Murphy, 2014). What researchers have agreed upon is that they have emphasized the importance of the elements of intonation, namely stress, pitch and pause or juncture; what they have dissented is whether these elements are teachable. According to Demirezen (2009), Turkish learners and teachers seem to have problems with these elements due to typological and cognitive factors. However, it is utterly vital that these particulars of intonation, which are stress, pitch and juncture, are taught properly so that mutual intelligibility is established thoroughly in oral communication.

In Turkish EFL context, research on the prosodic features of English does not suffice (Seferoğlu, 2005; Demirezen, 2009, 2012, 2015; Hişmanoğlu, 2009; Arslan, 2013) and therefore much attention needs to be paid to this issue. It is utmost essential that Turkish learners of English should be provided with explicit, systematic, and proper instruction on intonation. For this, intonation should be embedded in the curriculum of foreign language teaching and teachers should be qualified so that both learning and teaching will be effective. In this respect, it is expected of teachers, since they represent a proper model of speaker of English, to use the accurate intonation patterns prior to teaching them. For this reason, promoting the proficiency of EFL teachers in producing the correct intonation patterns in speech is as much momentous as teaching the prosodic features to EFL learners.

The present study, due to the reasons aforementioned, is far involved with how effective prospective Turkish EFL teachers are in recognizing and producing the proper intonation patterns of *If-clauses*. It is intended to raise awareness among pre-service Turkish EFL teachers about teaching intonation, inform them of the proper use of intonation patterns of *If-clauses* and, in case of necessity, ameliorate their problems concerning the issue.

### 1.1. Background of the Study

In the history of pronunciation teaching, pronunciation has been the “Cinderella” of foreign language teaching in foreign language teaching (Kelly, 1969). In his simile, Kelly (1969), by referring to the tale of Cinderella, implies that pronunciation, among other skills, have been neglected by many teachers. Towards the beginning of the twentieth century, it has been the subject of systematic studies. In the late 1800s, linguistic and analytic contributions to teaching pronunciation were made within the context of the Reform Movement in foreign language teaching. One of the most crucial convictions of the reformers was that the findings of phonetics should be applied to teaching and to teacher training (Richards & Rodgers, 2014). That is, they stressed the importance of oral-based methodology, fostering the proficiency of teachers through the findings of a scientific discipline called phonetics.

In the 1980s, however, with the emergence of the Communicative Approach which puts communication in the first place, the trend in educational establishments in respect to language teaching has changed in scope. The primary focus in language classrooms was now to use the language to communicate, which has brought about a refreshed outlook on pronunciation teaching. In this sense, Morley (1987) proposed that the oral communication of certain groups of EFL learners need a high level of intelligibility, hence particular support with pronunciation. Celce-Murcia et al. (2010) added two more groups to those of Morley’s: EFL teachers who are non-native speaker of English and the other group which is irrelevant to our focus of interest. To accomplish this aim, a number of strategies were developed by Celce-Murcia et al. (2010) such as phonetic training and various contextualized drills for practice.

Earlier research on pronunciation gravitated towards segmental features of English such as individual phonemes or chunks while the majority of the recent research has altered its focus to the suprasegmentals such as intonation, rhythm, and pitch variations. Much research indicated the likelihood of improvement in intelligibility providing that the focus is on prosody (Levis, 1999; Jenkins, 2000, 2002; Derwing & Rossiter, 2003; Hardison, 2004). In a study conducted by Venkatagiri and Levis (2007), metaphonological awareness was found to be significant in terms of speech comprehension. That is, they found a strong relationship between what learners know of English phonetics and their comprehensibility of speech. Another strong correlation was found between the metaphonological awareness scores of the learners and their scores for short-term memory. Therefore, prolific results can be attained if special assistance with metaphonological awareness can raise learners' awareness of segmental and suprasegmental features (Doughty & Williams, 1998).

Although intonation matters in terms of intelligibility in oral communication (Smakman, 2016) and that prosody is considered to be the most significant criterion for native speakers of English for the judgment of L2 speech (Hoorn, Smakman & Foster, 2014), it has gone unnoticed for a long time in language teaching settings (Yedomakha, 2013; Demirezen, 2015). When it comes to the reasons that account for this, several issues could be handled. First of all, lack of knowledge of the field could be the reason on part of teachers. That is, teachers who do not have a thorough command of English sound system, more specifically, producing the correct intonation patterns may feel incompetent and thus skip the subject. As expressed by Underhill (2005), the perceived difficulty of teaching intonation stems from the fact that teachers of English do not feel themselves confident and think that current descriptions of intonation are not learnable. On behalf of learners, it could be, as Pennington (1994) stated, physiological ("I can't change), psychological ("I don't need to change"), and sociocultural ("I don't think it is good to change"). She therefore suggested not only improvement in learner performance but a sound basis for change within psychological and sociocultural scope as well. As to the treatment of intonation by current textbooks, a number of things could account for why they fail to provide practical information to teach intonation. Primarily, forms of intonation are inaccurately described in the

textbooks which contain rules about intonation. Secondly, functions of intonation are inadequate although intonation is considered as essentially communicative. Being too limited in scope, such a case impedes efforts to teach intonation. Thirdly, as Levis stated (1999), linking of intonation to grammar is inappropriate. He concluded that the connections between grammar and intonation are confusing and insufficient in defining intonation. Linking grammar to intonation is important as any grammar can be articulated with different intonation patterns, which eventually leads to different meanings (Levis, 2016). Finally, textbooks do not provide a communicative focus for learners as most textbooks do not reflect present research (Levis, 2016). What Pirt (1990) asserted would complement this idea. According to Pirt (1990), learners, rather than solely the physical characteristics, need to be familiarized with the communicative aspect of intonation. For this, teachers must foster the understanding of the link between form and meaning through awareness-raising activities (Reed & Levis, 2015). In line with the arguments made about textbooks, the English Language Teaching (ELT) textbooks taught in almost all major universities in Turkey do not contain relevant information about intonation instruction. As a matter of fact, they do not even contain sufficient information about segmental features of English. As Kang (2010) expressed in his study, the extent to which varied suprasegmental features influence native speaker listeners' judgments of L2 speech will assist us to come up with a sound pedagogy for intonation instruction. That being the case, it is urgent that substantial steps must be taken to better this case for the sake of advancing intonation instruction among prospective EFL teachers.

Due to the arguments made before, the primary concern for the current study is to come up with a practical resolution to the problem of EFL teachers' incompetence in producing and instructing the accurate intonation patterns. To evaluate this, the Audio-Articulation Model (AAM) by Demirezen (2003, 2004) and Grammar Intonation Model (GIM) (Cauldwell & Hewings, 1996) in addition to visual displays were utilized in this study along with the purpose of rehabilitation of problems if necessary. The pronunciation and intonation models were preferred and exploited by some researchers in their studies concerning pronunciation instruction since Audio-Articulation Model bolsters the articulation of utterances by way of Grammar Intonation Model towards Discourse Intonation Model proposed by Brazil (1985,

1994). In a Master of Arts (MA) thesis study carried out in Thai context, Ampawan (2011) tested the effectiveness of Audio-Articulation Model to remedy the problematic fricative sounds for Thai learners of English. It was concluded that the model was found to be effective in rehabilitating the fossilized fricative sounds on part of the Thai learners. In Turkish EFL settings, Karakaş & Sönmez (2011) utilized the Audio Articulation Model (AAM) to remedy [θ] and [ð] sounds in English. In a similar vein, Karaazmak (2015) in her MA thesis made use of the AAM to explore the prospective EFL teachers' competencies about intonation patterns of time adverbials and remedy any intonational problems if necessary.

### 1.2. Statement of the Problem

Intonation has been proven to be significant in conveying the communicative purpose of the speakers as well as some other discourse-oriented objectives, yet less effort has been made in terms of teaching intonation to prospective EFL teachers along with evaluating their competencies in recognizing and producing the accurate intonation patterns. As discussed earlier, several factors such as insufficient command of English sound system on part of teachers and typological differences between languages may contribute to this. What was once done to pronunciation is now being done to intonation; that is, neither special attention is paid to intonation instruction nor are necessary precautions or steps being taken to ameliorate this so-called "bleeding wound" of the ELT and EFL fields notwithstanding the apparent benefits of teaching intonation and potential consequences otherwise. In this sense, the need to take urgent and systematic actions arises. Therefore, it is imperative for prospective EFL teachers to receive special training in suprasegmental phonetics as part of their professional development and raise their awareness on this important issue that may influence both their career and that of learners'.

Bearing in mind the arguments made, it is essential to place the due importance on teaching intonation within Turkish professional teacher education settings. Considering the fact that there seems to be a lack of research on raising prospective EFL teachers' awareness on recognizing and producing the accurate intonation patterns, it is plausible to assert that teachers' knowledge base must include a thorough command of segmental and suprasegmental features of

English as well as an awareness of the issues that will affect their students (Baker & Murphy, 2011; Baker, 2014). Hence, it becomes fundamental to explore the competencies of prospective Turkish EFL teachers in English intonation and contribute to their knowledge base when needed. Promoting pre-service Turkish EFL teachers' knowledge and competence in the present issue will also provide the current literature on language teaching with invaluable data.

### 1.3. Purpose of the Study

The primary aim of this study is to investigate the level of competency of prospective Turkish EFL teachers at a state university in Ankara in respect to the recognition and production of intonation patterns of *If-clauses*. Additionally, it is intended to assess their competency levels upon being subject to treatment sessions on the accurate use of intonation patterns by means of the AAM (Demirezen, 2003, 2004) accompanied by GIM (Cauldwell & Hewings, 1996). Bearing this in mind, the present researcher plans to reveal the existent intonational problems of pre-service Turkish EFL teachers and cure any potential problems of theirs utilizing the AAM. It is further aimed to create a heightened awareness on having a comprehensive command of suprasegmentals along with contribution to the teachers' knowledge base by producing the accurate intonation patterns in English.

As mentioned in several studies, it is urgent to teach intonation with realistic language (Chun, 2013; Goodwin, 2013; Reed & Michaud, 2015; Demirezen, 2015; McKinnon, 2016). That being said, authentic utterances by native speakers were utilized in this study as learners, in conjunction with materials adapted from various course books, should be provided with input gathered from native speakers. For this reason, real-life materials were exploited in this study for learners to acquire the accurate intonation patterns.

### 1.4. Significance of the Study

The significance of this study can be explained from two aspects. Firstly, much of what has been studied so far in foreign language teaching literature of EFL context pertaining to English majors including Turkey is on a par with one another. In

addition, instead of providing valuable insight into the field of interest, much research replicate one another and remain on theoretical level. As Levis (1999) puts it, “present intonation research is almost completely divorced from modern language teaching and is rarely reflected in teaching materials, which continue to rely on outdated and inaccurate descriptions of intonational forms and functions” (p.44). This study therefore will contribute to the current literature on practical aspects along with theoretical ones.

The second aspect of significance of this study is closely related to the first one. With the participation of prospective Turkish EFL teachers, practical and valuable data will be gathered on a subject which hasn’t been studied thoroughly, and thus contribute a lot to the Turkish English teacher training context in terms of providing ideas for future research. Furthermore, treatment sessions about English intonation will be offered in case of necessity to promote the prospective Turkish EFL teachers’ knowledge and evaluate their present level of prosodic competence. The previous research on that subject included replicas of one another in that they have discussed and suggested possible alternatives to teaching intonation, yet very few of them (Demirezen, 2009; Hişmanoğlu, 2009) took major steps to advance learners’ proficiency levels in prosody. For this reason alone, this study is worth being carried out.

### 1.5. Research Questions

In line with the discussion held so far, the following research questions were developed for the present study:

1. Is there a statistically significant difference between the pre-test and post-test scores of the participants in recognizing and placing the nuclear stress on one of the content words in *If- clauses* in English?
2. Is there a statistically significant difference between the pre-test and post-test scores of the participants in recognizing and producing the appropriate pitch patterns whilst reading aloud the *If-conditional* sentences?
3. Do the participants pause when an independent clause is preceded by a dependent clause in *If-conditionals* in relation to commas?

4. Which intonation pattern do the participants use when a main clause comes before a dependent clause in *If-conditionals*?
5. Is there a statistically significant difference between the overall pre-test and post-test scores of the participants in the recognition and production of the accurate intonation patterns of *If-clauses* in English?

### 1.6. Assumptions and Limitations

It is assumed that all the participants have honestly and willingly participated in this study, considering the fact that they have signed the voluntary participation form before they have been pre-tested. With regard to the first limitation of the study, it can be stated that the number of the participants, which is 61, may not be enough to draw generalizable conclusions at the end of the study. The second limitation to this study is about the sample from which data was gathered. The freshmen from the ELT Department of a state university in Turkey comprised the sample of this study. The study may have yielded dissimilar results if carried out in different ELT departments of other state universities in Turkey. It is advised to include sophomore, junior and senior students and more ELT departments from various state universities in Turkey.

### 1.7. Definition of Key Terms

Some of the key terms significant to this study will be defined here as below.

**Prosody:** “Long-term settings and shorter-term variation in loudness, as well as intonation (Brown, 2014, p.6).

**Intonation:** “The melody of speech” (Wells, 2006); “The use of the pitch of the voice in speech” (Brown, 2014).

**Stress:** “A phonologically delimitable type of accent in which the pitch shape of the accentual pattern cannot be specified in the lexicon but rather is chosen for a specific utterance from an inventory of shapes provided by the intonation system” (Beckman, 1986).

**Pitch:** “The frequency of vibrations of human voice heard in highness and lowness of tones during the act of speech” (Demirezen, 1986, p.116).

**Juncture:** “A term used in phonology to refer to the phonetic boundary features which may demarcate grammatical units such as morpheme, word or clause” (Crystal, 2008, p.258).

**Rhythm:** “The perceived regularity of prominent units in speech, which includes patterns of stressed and unstressed syllables, syllable length, pitch, or some combination of these variables” (Crystal, 2008, p.443).

**Connected Speech:** “Spoken language when analyzed as a continuous sequence as in normal utterances, the significance of which lies in the contrast implied with studies of linguistic units seen in isolation which were the subject-matter of much traditional linguistic enquiry” (Crystal, 2008, p.127).

**Phonological awareness:** “An individual’s awareness of the phonological structure or sound structure of words” (Gillon, 2004).

**Metaphonological Awareness:** “The awareness of phonological strings, which is a kind of global appreciation of speech sound that may be sufficient to notice sound similarities, awareness of syllables, awareness of phonemes, and awareness of phonetic features” (Morais, Alegria & Content, 1987).

**Audio-Articulation Model (AAM):** “The AAM, as a model for teaching, correcting, and curing the problem-causing core sounds in the pronunciation of nonnative teachers of English, generally moves from raising awareness of an aspect of the fossilized pronunciation mistake of the target language to perception or focused listening and then exhortation of exercises towards oral practice” (Demirezen, 2010).

**Grammar Intonation Model (GIM):** “A systematic framework within which teachers and students study intonation and which provides teachers with alternative and productive ways of explaining rules of intonation” (Cauldwell & Hewings, 1996).

**Discourse Intonation Model (DIM):** “The production of a set of speaker-options formulated without explicit reference to grammar for conveying function in speech” (Brazil, 1975).

**Foreigner Talk:** “A register of simplified speech used by speakers of a language to outsiders who are felt to have very limited command of the language or no knowledge of it at all” (Ferguson, 1975).

**Accent Reduction:** “Approaches to pronunciation teaching that imply to learners that the goal is precisely to rid them of an undesirable and deviant L1 accent in L2 and – by extension- an undesirable and deviant entity” (Jenkins, 2000).

## 1.8. Conclusion

With the purpose of providing a general outlook on what is being examined throughout this study and making readers have a clear understanding of the scope of the study, some background information was presented; the problem from which this study emerges was stated and the purpose and significance of the study along with research questions were demonstrated in this chapter. Furthermore, the potential limitations to this study and definitions of some key terms were introduced. In the second chapter, a more in-depth examination of the research carried out on the subject in the literature will be reviewed and evaluated. The methodology of this study along with data about the participants and procedures and instruments for data collection will be introduced in the third chapter. The findings of this study including answers to each research question will be demonstrated in the fourth chapter and discussed in the fifth chapter. In the last chapter, what has been discussed throughout the thesis will be reviewed and concluded and implications of the findings as well as suggestions for further research will be given.

# 2. REVIEW OF LITERATURE

## 2.1. Introduction

Often perceived as difficult and thus neglected, the teaching of English intonation is also excluded in several textbooks (see i.e. Speak Out Elementary, Outcomes Pre Intermediate, New Cutting Edge Upper Intermediate, etc.) or in cases of its inclusion in course books, it is encountered with disfavor by teachers to teach due to the fact that teachers of English may not consider themselves proficient enough (Underhill, 2005, p.75) or that English intonation bears some complexities (Roach, 1991; Thompson, 1995, Marks, 2010; Frota, 2014; Wichmann, 2014; Brown, Currie & Kenworthy, 2015) which makes it difficult and unpleasant to teach in English language classrooms. However, many scholars and material designers agree on the fact that intonation is substantial in communication (Gilbert, 1993; Dalton & Seidlhoffer, 1994, p.75) since it is produced by speakers of English to express their intentions (Kenworthy, 1987, p.19). With the emergence of Communicative Language Teaching (CLT) which prioritizes learner-centeredness, the use of authentic materials as well as intelligibility in communication (Hsieh et al., 2013), much importance began to be given to pronunciation and intelligibility within this framework (Morley, 1991; Derwing & Munro, 1997; Munro & Derwing, 1999; Field, 2005) and thus paving the way for much emphasis on suprasegmentals considered to affect communication (Lightbown & Spada, 2006; Celce-Murcia et al., 2010).

Given the fact that teaching suprasegmentals – intonation in particular – is required for learners of English to convey meaning and emotions in their speech and that “a rather extensive gap has developed between the theoretical investigation of intonation and the implementation of sound pedagogical materials” (Lantolf, 1976), the present study aims at exploring the levels of competence of pre-service Turkish EFL teachers and remedy any of their intonational problems if necessary. In order to justify this point of view and the urgency of why this study should be carried out, a comprehensive review of literature including an informative background to the history of teaching intonation, various definitions,

functions, and elements of intonation presented by a number of scholars, and the approaches, methods and techniques for teaching intonation along with the factors affecting intonation instruction will be discussed in this chapter. Whilst doing this, it is intended that the role of intonation and the significance of teaching it will be deliberated in consideration of grounding this study on substantial foundations along with the fact that increasing prospective Turkish EFL teachers' awareness on teaching intonation and evaluating their levels of competence are vital.

## 2.2. Historical Background and Scope of Pronunciation and Intonation Instruction

Just before the beginning of the twentieth century, pronunciation began to be better understood by many educationalists and researchers and thus studied systematically as grammar and vocabulary were examined earlier. The Reform Movement led to the development of several approaches and methods such as the Oral Approach which attaches greater importance to pronunciation and urges explicit pronunciation instruction. Trends in teaching languages have changed over the years so has pronunciation instruction. As to current pronunciation instruction practices, they have profoundly been influenced by the Communicative Approach (CA) that emerged in the 1980s. According to Celce-Murcia et al. (2010, p.8), focusing on communication - thanks to CA – has brought renewed urgency to the teaching of pronunciation. They claimed that there is a threshold level of pronunciation for non-native speakers (NNS) of English. Morley (1987, p.2) identified at least four groups of leaners of English, among whom were foreign teaching assistants and international businesspeople, and who need special instruction in pronunciation.

That being the case with pronunciation instruction, a similar scenario is valid for teaching intonation as well. In its juxtaposition with other areas of language such as grammar and vocabulary, pronunciation was neglected and so was intonation in its comparison to pronunciation. Since intonation is a slippery area of language, there have been some differences of opinion among language educators and researchers on what and how to teach intonation since "of all the elements of a target language, the intonation appears to be the most difficult to acquire" (Leon & Martin, 1972, as cited by Spaai & Hermes, 1992, p.21). For that reason, they have

focused on the teachable suprasegmental features of English such as nuclear stress, pitch variations, and juncture or pause. Traditionally, form-focused instruction of pronunciation and intonation has been executed mainly due the fact that phonological learning necessitates grasping the pronunciation rules and some motor skills are needed to articulate new sounds (Trofimovich & Gatbonton, 2006). However, with the advent of technology, new methods began to be used in the teaching of intonation. Earlier attempts to teach intonation were based on the revolutionary efforts made by Halliday in the 1960s as he incorporated intonation into a complete model of language (Tench, 2014). The Systemic-Functional Model of Intonation introduced by Halliday (1967, 1970) suggests that intonation is intimately correlated to phonology, grammar, information structure, attitude, and systems. With reference to the model developed by Halliday (1967, 1970), it was stated in Tench's (2014) study that intonation is an intrinsic part of the phonological hierarchy, above the level of rhythm/stress groups in English, but below the level of segments of discourse. Since acquiring the intonation of a target language is demanding, numerous attempts have been made to promote intonation instruction by provision of visual feedback auditorily presented to learners of English (Weltens & De Bot,1984; Suzuki et al., 1989). In such practices, learners listen to the target sentences. They then are shown the pitch contour of the utterances on the screen. In the last stage, they are asked to imitate the target sentence. A comparison between the visual of the original recording and the visual of the pitch contour obtained by learners' recordings are made in the hope of enabling learners to be able to produce better pitch contours in the end.

With the emergence of Discourse Intonation Model developed by Brazil (1997), intonation instruction began to be contextualized and presented in various contexts for different communicative functions and purposes. As stated by Jenkins (2004), discourse intonation emphasizes the communicative purpose of intonation over traditional models – involving both conversational control and the establishment of social roles by assigning the prominence, key and tone choice. According to Goh (2001), DIM is more applicable to EFL settings and more learner-friendly since it "helps to organize and demystify the teaching of intonation" (Chapman, 2007, p.6). The primary reason for this could be related to the fact that it prioritizes communication in teaching intonation.

Following the development of DIM (Brazil,1997), the teaching of intonation has gained more prominence and become more contextualized in line with the arguments made by the pioneers of DIM. Unlike segmental instruction, suprasegmental instruction must be contextualized in that the essential nature of intonation; more specifically, stress, pitch, and juncture, becomes apparent within context. Taking into account the demanding nature of teaching intonation, intonation instruction was suggested to be more explicit and technology-friendly with the advent of the technology. Especially with regard to the teaching of pitch, provision of visual feedback (Pennington, 1989; Spaai & Hermes, 1992; Anderson-Hsieh, 1994) was considered to be influential and effective in terms of identifying the changes in the voice quality and structure. In other words, technology was begun to be utilized in the teaching of intonation through speech analysis and visual displays.

### 2.3. Intonation and Its Significance

Intonation - a unit of suprasegmentals exhibiting the rhythm or the melody of languages, striking the ear as sequences of loudness or softness, prominence or dropping heard at intervals of time - is the area wherein we experience and enjoy the beauty of speech (Demirezen, 1986, p.123). It harbors several elements such as stress, pitch, and juncture and is used to perform a number of functions in terms of conveying grammar and attitudes. Because of its vague nature, it is necessary to define what it is and explain what it is used for. For this reason, the following sections will provide some information on the definition, elements, and functions of intonation.

Concerning the significance of teaching intonation, several issues can be considered as much research focused on different aspects of intonation. First of all, intonation assists the flow of conversation by indicating turn-taking or end of a conversation (Sacks, Schegloff & Jefferson, 1974; Swerts et al., 1992). For instance, a falling terminal juncture signals the end of an utterance, signaling a person to respond next. Secondly, the essential information and pragmatic meaning of utterances may not be understood and conversational management as well as interspeaker cooperation may be poorly controlled (Clennell, 1997, p.118).

The second statement about the significance of intonation teaching may be the most important reason for emphasizing this phenomenon. In line with the second statement, Jenkins (2002) stresses the importance of suprasegmentals in communication stating that “while tones are non-vital, mistakes of prominence or “nuclear stress” are one category of phonological error which can cause breakdowns in communication” (p.87). Celce-Murcia et al. (2010) equivalently pinpointed that learners would frustrate native-speaking listeners unless they produce correct rhythm or connect words; more prominently, learners can be considered as abrupt or rude in case of inaccurate production of intonation contours and they may not be understood at all by native-speaking listeners unless their stress and rhythm patterns are too non-native-like. Arslan (2013) similarly reported that non-native speakers of English are likely to face difficulties in maintaining successful communication in English if they fail to apply prosodic features of English in their language as poor application of stress may result in loss of communication (Celce-Murcia et al., 1996, 2010; Harmer, 2001; Murphy, 2014). Bearing in mind the discussion held by many scholars in terms of the significance of intonation teaching, it is plausible to assert that prospective teachers of English, who are the participants of this study, must be trained in intonation since they represent the native-speakers of English in classrooms. In addition to this, non-native teachers of English must be open to professional development in relation to work ethics. In other words, this issue must be approached from a professional point of view. Taking into consideration the fact that suprasegmentals have received little attention by Turkish scholars (Seferoğlu, 2005; Demirezen, 2009, 2015a, 2015b; Arslan, 2013) when compared to segmental features of English (Demirezen, 2003, 2005, 2006, 2007, 2008, 2009, 2010, 2012; Hişmanoğlu &Hişmanoğlu, 2011; Hişmanoğlu, 2007, 2012; Demirezen & Topal, 2015), it can be urged that closer attention must be drawn to the issue of teaching intonation and finding out some practical applications in terms of intonation instruction.

To conclude, “intonation functions at the level of monosyllabic words (Roach, 2006) and isolated utterances, its full-fledged performance can only be observed at the level of coherent oral texts, because only in their framework can we ultimately understand the intentions and communicative strategies of their authors”

(Mitrofanova, 2012, p.283). In line with this statement, the significance of connected speech emerges. Celce-Murcia et al. (2010) summarized connected speech as the fact that words are not produced in an isolated fashion but rather tend to “run together” in English spoken discourse. Without connected speech, learners’ – in our case prospective EFL teachers’ – speech sounds choppy. For that reason, the teaching of connected speech bears almost the same amount of significance as the teaching of intonation.

### 2.3.1. Definition of Intonation

In the field of linguistics, the term “intonation” is an equivocal concept, the definition of which varies from scholar to scholar. For Jones (1960), intonation is "the variations which take place in the pitch of the voice in connected speech, i.e. the variations in the pitch of the musical note produced by vibration of the vocal cords" (p.215). Halliday (1985) delineated intonation as the lexico-grammatical system around the clause in spoken discourse. According to Wells (2006), intonation is the melody of speech and it involves the study of the rhythm of speech, and the study of how the interplay of accented, stressed and unstressed syllables functions as a framework onto which the intonation patterns are attached. Nolan (2006) describes intonation as “a means for conveying information in speech which is independent of the words and their sounds which is used to carry a variety of different kinds of information” (p.433). As reported by Roach (2009), intonation enables us to express emotions and attitudes as we speak and helps to produce the effect of prominence on syllables that need to be perceived as stressed. For Pickering (2012), intonation is narrowly defined as “the systematic and linguistically meaningful use of pitch movement at the phrasal or suprasegmental level.” (p.280). Carr (2013) defined it as “the use of pitch contours over stretches of speech which often consist of more than one word” (p.109). Tench (2015) states that intonation refers to the rise and fall of the pitch of the voice in spoken language and is integral to the study of any language, for it links up not only with meaning, but also with grammar, pronunciation and spoken discourse at large.

With regard to the definitions provided in the dictionaries, Macmillan Dictionary (2007) explains intonation as “the way in which your voice goes up and down

when you speak". For Collins Dictionary (2011), it is "the sound pattern of phrases and sentences produced by pitch variation in the voice". Longman Dictionary of Contemporary English (2012) defines intonation as "the way in which the level of your voice changes to add meaning to what you are saying, for example by going up at the end of a question". Likewise, Oxford English Dictionary (2012) defines intonation as "the rise and fall of the voice in speaking". According to Cambridge Advanced Learner's Dictionary (2013), intonation is defined as "the sound changes produced by the rise and fall of the voice when speaking, especially when this has an effect on the meaning of what is said".

In all the definitions presented so far, what is common is that pitch and pitch variations are considered to be the sole component of intonation. In other words, it can be stated that the definitions of intonation provided up to now are insufficient in terms of explaining the true nature of intonation. However, as reported by Demirezen (2009), intonation is genuinely "the combination of pitch, stress, and juncture with which an utterance is spoken" (Frost, 1975, p. 238; Demirezen, 1986, p.120). For this reason, intonation must be studied delicately bearing in mind the fact that many people are confused by the various definitions of intonation provided. In this study, intonation will be considered to be comprised of stress, pitch, and juncture.

### 2.3.2. The Elements of Intonation

With the discussion held above, the elements of intonation will be considered as stress, pitch, and juncture in this study as Demirezen (2008) pointed out in the following diagram.

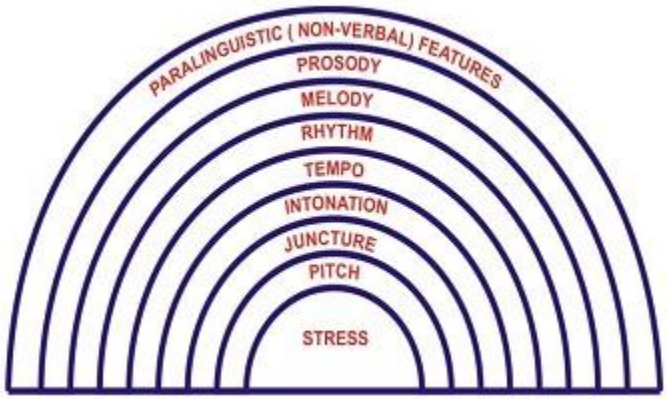



**Figure 2.1: The Elements of Intonation and Prosody (Demirezen, 2008)**

When Figure 2.1 is examined, all the elements belong to the suprasegmental features of the English language. Intonation, which is the main focus of this study, contains juncture, pitch, and stress consecutively. Bearing this in mind, the three elements of intonation will be defined and explained including the types of stress, pitch patterns, and juncture phonemes. It must be noted that in the literature mostly researched areas are lexical and sentence stress, pitch variations with regard to the elements of intonation. Much research focused on the teaching of pitch through speech visualization technology (Pennington, 1989; Spaai & Hermes, 1992; Anderson-Hsieh, 1994).

#### 2.3.2.1. Stress and Stress Phonemes

With regard to the first element of intonation, stress is described by Demirezen (1986) as “the embodiment of the accumulation of energy imposed upon a sound or sound group in the process of speech and is considered to be equivalent to accent” (p.108). However, he also made a distinction between stress and accent stating that “accent is more frequently an overall term for any system obtaining emphasis on particular syllables whereas stress is one type of accent” (Liebert, 1971, p.88). According to Anderson-Hsieh (1990, p.198) stress, or the relative prominence of syllables, is defined acoustically in terms of three parameters: pitch, intensity or loudness, and duration. Wells (2006, p.3) stated that stress is realized by a combination of loudness, pitch, and duration. It can be inferred from these definitions that some syllables in a word or words in phrases or sentences may carry more prominence than the others. Therefore, it can be stated that one of the purposes for using the stress is to identify words in English. In some languages, such as Finnish and Icelandic, the place of stress is on a particular syllable in a word (fixed stress); it can be the first, middle or penultimate while in other languages such as English and Spanish, the position of stress varies (free stress) and thus it cannot be predicted in that way. In the table below, practical information about the types of stress can be found.

**Table 2.1: The Types of Stress in English**

| STRESS | |
|---|---|
| **Lexical (Word) Stress** | **Sentence (Prosodic) Stress** |
| Major Stress | Phrasal Stress |
| Primary Stress Phoneme / ˊ / | Contrastive Stress |
| Secondary Stress Phoneme /ˆ/ | Emphatic Stress |
| **Minor Stress** | |
| Tertiary Stress Phoneme / ˋ / | |
| Weak Stress Phoneme / ˘/ | |

To exemplify lexical stress, we can take the word “import” as an example since it has both a noun and a verb form. Its verb form is pronounced as /ɪmˈpɔːrt/ in American English while its noun form is pronounced as /ˈɪmpɔːrt/. As can be seen from the example, in the verb form of “import”, the primary stress is on the second syllable while the primary stress is on the first syllable in its noun form. In addition, the secondary stress is on the other syllables. A tertiary may exist in multisyllabic words, which usually have more than two syllables. In terms of sentence (prosodic) stress, Chomsky and Halle (1968) reported that sentence stress is utterly predictable from the stress of the words and the hierarchical organization of the utterance at the level of the input to the phonology. According to their hypothesis, the leftmost primary-stressed vowel in a word receives primary stress (compound rule) while the rightmost primary-stressed vowel in a prominent constituent gets primary stress (nuclear stress rule). As can be understood from the explanation, they approach to the phenomenon from a transformational point of view. It must be noted that primary stress is sometimes known as sentence stress (Schmerling, 1976; Bardovi-Harlig, 1986) and therefore primary stress will be used as an alternative to sentence stress in this study. In English, primary stress indicates contrastive information as can be seen in the following example given by Hahn (2004):

A: Are you ready?

B: I’m álways ready.

In this example, the words that represent old information are de-stressed while the word with new information is stressed, which lays the foundation for primary stress. To sum up, content words such as nouns, verbs, adjectives, and adverbs

receive major stress (primary and secondary) while function words such as articles and prepositions receive minor stress (tertiary and weak). Apart from the types of stresses explained so far, there is another type of stress called “emphatic stress” (Demirezen, 1986, p.112) which is also known as special stress and signifies the placement of primary stress on any word or phrase for the sake of contrast. The case with emphatic stress can be exemplified in the following sentences:

(1) That film was **BRÉATH**taking. (That film was impressive.)
(2) That film **WÁS** breathtaking. (That film was really breathtaking.)
(3) That **FÍLM** was breathtaking. (That film, not book, was breathtaking.)
(4) **THÁT** film was breathtaking. (Not this film, but that film was breathtaking.)

As can be inferred from the example above, it is up to the speaker to place the primary stress on any content/function word in the sentence or the placement of primary stress is context-dependent. It must also be noted that the placement of primary stress on different words may yield different meanings thus may change the flow of the conversation. Furthermore, the production of primary stress is considered very significant in that “the major function of sentence stress is to highlight semantically important words and to form the rhythmic pattern of the utterance” (Lee et al., 2016). For this reason, as the lack of primary stress in a sentence might sound monotonous and meaningless, its use bears great significance.

In terms of the importance of primary stress in communication, several scholars have emphasized its significance. Harmer (2001), for example, emphasized the significance of placement of stress stating that “stressing words and phrases correctly is vital if emphasis is to be given to the important parts of messages and if words are to be understood correctly” (p. 184). Jenkins (2002) defined stress as “a set of phonological features that seem to be crucial as safeguards of mutual intelligibility in interlanguage talk” (p. 96) and included it in her Lingua Franca Core.

#### 2.3.2.2. Pitch and Pitch Phonemes

The second element of intonation, pitch, is defined by Celce-Murcia et al. (2010) as “the relative highness and lowness of the voice” (p.184). In other words, it

portrays the distinctive tones of utterances produced by speakers. Demirezen (1986) described pitch as “the frequency of vibrations of human voice heard in highness and lowness of tones during the act of speech. (p.116). For Underhill (1994, p.57), it is one of the acoustic correlates of stress. As Cruttenden (1986, p.3) stated, pitch is primarily dependent on the rate of vibration of vocal cords. Therefore, the more the syllables are stressed, the higher the pitch is. In a similar vein, loudness can be associated, to some extent, with the formation of pitch. Pitch phonemes, which are essential components of intonation, may carry paralinguistic meanings and differentiate meanings (Demirezen, 1986; Peoples & Bailey, 2012). For that reason, the teaching of pitch phonemes is of great value in terms of enhancing the phonological competence and metaphonological awareness of prospective EFL teachers.

Concerning the levels of pitch, the ups and downs of the voice which create what is known as relative pitch is presented in the following table.

**Table 2.2: The Levels of Pitch Phonemes in English**

| |
|---|
| /1/ Low Pitch Phoneme |
| /2/ Normal Pitch (Mid Pitch) Phoneme |
| /3/ High Pitch Phoneme |
| /4/ Extra High Pitch Phoneme |

Most research conducted on investigating the vocal correlates of emotional expressions (Scherer, 2003; Juslin & Laukka, 2003) commonly found that depicted emotions affect universal descriptors of intonation. In other words, different levels of pitch were associated with different types of states of emotion. To exemplify, extra high pitch can be used to display exclamation while low pitch phoneme can be preferred in sadness or displeasure. Such information is called a paralinguistic feature and cannot be measured through any segmental analysis and thus can only be determined through prosodic analysis. As Demirezen (1986, p. 118) stated, normal pitch of the voice is labelled as /2/ as regards height from which departures upwards and downwards are made. In other words, every statement starts with pitch /2/. In addition, the words with primary stress gets pitch /3/ and then gets /1/ when the statement is finalized as the voice goes downwards. These pitch levels,

by themselves, do not stand alone in sentences. However, they come together and form pitch patterns through which intonations in phrases or sentences are created.

It must be noted that all rises and falls in pitch which occur during a phrase cannot be ascribed to stress; however, the same set of segments and lexical stresses can also take place with a number of pitch patterns which are termed intonation contours. English has a number of intonation patterns through which standardized meanings are added to utterances such as statement, exclamation, question, sarcasm, command, etc. Below is a table which presents the intonation contours in English compiled from several scholars: (Demirezen, 1986, p. 121; Celce-Murcia et al., 1996; Wells, 2006; Gut, 2009; Brown, 2014)

**Table 2.3: The Types of Intonation Contours in English**

| Intonation Contour | Area of Use |
|---|---|
| **/2 3 1 ↓/ or /2 2 1 ↓/** | • Statement / Declarative Sentence<br>• Commands<br>• Wh- questions |
| **/ 2 3 3 ↑/ or / 2 2 3 ↑/** | • Yes-No Questions in Statement Forms<br>• Yes-No Questions in Interrogative Forms<br>• Certain Phrases and Clauses |
| **/ 2 3 2 →/** | • Initial grammatical unit<br>• Certain Statements |
| **/3 2 2 ↓/ or /2 2 3 ↑/** | • Mothers' special calls for children |
| **/2 2 3 ↑/** | • Stressed word, phrase or clauses in series |

Table 2.3 provides information on a range of intonation contours in English. However, /2 3 2 →/ and /2 3 1 ↓/ pitch patterns will be utilized in this study as the primary focus is on the intonation patterns of *If-clauses* in English. Regarding the intonation patterns of *If- clauses,* it can be stated in accordance with the rules in Table 2.3 that *If-clause* gets /2 3 2 →/ /2 3 1 ↓/ when it precedes the main clause. When the main clause precedes *If-clause*, it usually gets /2 3 2 →/ /2 3 1 ↓/pattern, yet there are some exceptions and thus instances of /2 3 1 ↓/, which is also available in the corpus of this study. The /2 3 1 ↓/ pitch pattern, when *If-clause* is preceded by the main clause, is very special in that there is only one word that receives primary stress in the whole sentence.

With regard to the significance of pitch, it was reported by Spaai and Hermes (1992) that linguistic, syntactic and semantic information is more easily conveyed when a speaker produces the correct variations in pitch in a speech utterance (Crystal, 1981). Pitch information is also used by listeners to learn about emotional state (Lieberman & Michaels, 1962) and personality traits and professional status (Crystal, 1981). In their studies, Maastricht et al. (2016) revealed that incorrect placement of pitch accents can obstruct communication between speakers. In relation to the connection between pitch patterns and intelligibility, Roach (2001, p.82) argued that pitch patterns are always accompanied either by rhythmic characteristics that are preserved in whisper, or by register differences that can be simulated, and these in themselves are sufficiently distinctive to provide intelligibility. Wells (2006) stated the importance of intonation system of English and prosody as in the following sentence:

> *By combining different pitch levels (=unchanging pitch heights) and contours (=sequences of levels, changing pitch shapes) we express a range of intonational meanings: breaking the utterance into chunks, perhaps distinguishing between clauses (such as statement vs. question=, focusing on some parts of the utterance and not on others, indicating which part of our message is background information and which is foreground, signaling our attitude to what we are saying* (p.5).

Considering the discussion held about pitch so far, it can be urged that the teaching of pitch patterns in English bears great salience in terms of achieving a wide range of goals, especially managing sound communication. As part of one of the goals of this study, it is intended that prospective Turkish EFL teachers will receive treatment sessions on the intonation patterns of *If-clauses*, which includes the teaching of pitch as well. In addition to that, Turkish teacher trainees must also receive special training on how to teach the intonation of English, not only that of *If-clauses*, but also that of other grammatical structures of English, the negligence of which might lead to miscommunication between native speakers (NSs) and NNSs of English. Furthermore, pre-service teachers of English, including Turkish EFL teachers, must be proficient and competent in English prosody in terms of professional development and work ethics. For non-native learners of English, it is their teachers who represent the English language and whom they can take as role model. For these reasons, necessary steps have to be taken tentatively in order to achieve various kinds of educational and professional goals.

### 2.3.2.3. Juncture and Juncture Phonemes

The third element of intonation, which is defined by Nicolosi et. al (2004) as “the relationship between two successive syllables in speech” (p.166) is juncture. A juncture, according to Nicolosi et al. (2004), is formally a suprasegmental phonemic cue, a means by which a listener can distinguish between two otherwise identical sequences of sounds that have different meanings. Crystal (2008) described juncture as “the phonetic boundary features which may demarcate grammatical units such as morpheme, word, or clause” (p.188). There exists a couple of ways to recognize juncture. According to Skandera and Burleigh (2005), pauses and word boundaries are two common ways for realizing a juncture. Some non-native speakers of English make continuous, and Picheny et al. (1986) claimed that individuals insert more pauses and increase the duration of individual speech sounds in order to make speech clearer. In terms of the types of juncture phonemes in English, Demirezen (2013, p.207) summarized them as presented in the following table:

**Table 2.4: The Types of Juncture Phonemes in English**

| **Juncture Phonemes** | |
|---|---|
| **Internal Juncture** | **External (Terminal) Juncture** |
| Internal Close Juncture Phoneme | Falling Juncture Phoneme /↘/ |
| Internal Open Juncture Phoneme /+/ | Rising Juncture Phoneme /↗/ |
| | Sustained Juncture Phoneme /→/ |
| | Rise-Fall Juncture Phoneme /↗↘/ |
| | Fall-Rise Juncture Phoneme /↘↗/ |

To illustrate the difference between open and close juncture phonemes, the following example can be given.

(1) a bridge /ə brɪʤ / (*Open Juncture Phoneme*)

(2) abridge /əˈbrɪʤ / (*Close Juncture Phoneme*)

As to the illustration of the difference between falling and rising juncture phonemes, the following sentences can be given as an example:

(a) You speak Chinese /↓/ (*Falling Juncture Phoneme*)

(b) You speak Chinese /↑/ (*Rising Juncture Phoneme*)

Although the sentences above are both statements, they can be converted into interrogatives through the inclusion of a different juncture phoneme. Regarding the illustration of sustained, rise-fall and fall-rise juncture phonemes, the following sentences can be given as an example:

Our teacher, who is from Sweden, speaks with a perfect accent.

(Our teacher →who is from Sweden → speaks with a perfect accent.) (*Sustained Juncture Phoneme*)

The use of commas in the above examples indicates a pause, thus necessitates the production of sustained terminal juncture phonemes.

(a) When did she arrive? /↗↘/ (*Rise-Fall Juncture Phoneme*)
(b) He saw but didn't tell her? /↘↗/ (*Fall-Rise Juncture Phoneme*)

As can be seen in the examples above, *fall-rise juncture phonemes* can be utilized in declarative questions.

The absence of an internal juncture in such examples will apparently lead to a change in meaning, therefore close attention must be paid. As for terminal juncture phonemes, they signal the end of an utterance in varying degrees. As Demirezen (1986, p.116) stated, terminal junctures are features of pronunciation and are mostly equated with punctuation marks which may well also be counted as features of pronunciation. With this in mind, it can be expressed that the majority of the statement or declarative sentences generally receive a falling terminal juncture while *yes-no questions* get a rising juncture. Sustained juncture, according to Demirezen (1986, p.114) is heard on both sides of the appositive phrases which give extra information on the subject of the sentence to which it belongs. Although not often, sustained juncture may also occur both within and at the end of the utterances. In such cases, the duration of the pause is usually short; otherwise, there would be a falling terminal juncture in case of a longer duration of pause. As for the focus of this study, which is *If-clauses*, the production of juncture phonemes is threefold. When the main clause is preceded by *If-clause*, the sentence takes a sustained juncture within the dependent and independent clauses and a falling terminal juncture at the end. When the main clause precedes *If-clause*, there are two instances of producing the correct juncture: first, a combination of sustained and falling terminal juncture and second, falling terminal

juncture only. The latter instance occurs when there is only one word with primary stress in the whole sentence, which bears a specific usage.

Regarding the significance of teaching juncture, Cutler and Butterfield (1992) argued that finding where new words begin in continuous speech is a problem, since word boundaries are rarely reliably marked. For this reason, the perception and production of accurate types of juncture is vital for sound conversations. In a study conducted by Bond and Garnes (1980), it was reported that misperceptions of juncture are relatively common and accounted for about 18% of their corpus of spontaneous slips of the ear. In other words, the participants in their study failed to recognize the juncture thus led to problems in communication. For Pickering (2002), the place of pause has a salient function. With regard to the relationship between pause and intelligibility, Paterno (2003) claimed that there is a strong relationship between the use of correct pause and speech intelligibility. Wells (2006) advocated the importance of juncture by pointing out that “some of intonation meaning is shown in writing, through the use of punctuation…” (p.5). Götz (2013) cited Chambers (1997, p.540) who expressed that fluency is not about speech rate but appropriate use of pauses in utterances. Brown (2014) also displayed the importance of junctures in linking words by distinguishing several vowels and consonants. To illustrate, Brown (2014) gives the following examples:

(1) Is the *classroom* big enough?
(2) Has the *class room* enough to move around?

In the above examples, the first consonant runs naturally into the second. Therefore, it can be argued that junctures are an indispensable part of connected speech and they must be used appropriately in utterances to convey the intended meaning.

To summarize the discussion on juncture, it can be concluded that both the recognition and production of correct juncture in utterances will bring about sound communication between speakers of English. In addition, the teaching of juncture, included in the teaching of intonation, to prospective teachers of English is crucial for both professional development and work ethics. Possessing the knowledge of intonation, juncture in specific, and being competent in its recognition and proficient in its production will be for the benefit of both prospective teachers and

ultimately learners as well. With this in mind, as urged by Demirezen (2009), English intonation including stress, pitch and juncture need to be analyzed and practiced adequately in teacher training curricula of Turkish teacher education programs.

### 2.3.3. Functions of Intonation

Like the abundance of the definitions of intonation, there are also abundant functions of intonation. Götz (2013) expressed that several studies proved intonation executes varied communicative functions. For instance, Halliday (1967, 1970, 1994) proposed three major functions: attitudinal, grammatical and informational. Roach (1991) comes up with four functions of intonation, which are, accentual, attitudinal, discourse and grammatical. For Crystal (1995), the functions of intonation are six and these are emotional/attitudinal, indexical, informational grammatical, psychological, and textual. Wells (2006) came up with a similar categorization of functions of intonation to that of Crystal (1995) in addition to discourse function. All these functions proposed by different scholars can be summarized as in the table below:

**Table 2.5: The Functions of Intonation**

| Halliday (1967, 1970, 1994) | Roach (1991) | Crystal (1995) | Wells (2006) |
|---|---|---|---|
| Attitudinal | Attitudinal | Emotional/Attitudinal | Attitudinal |
| Grammatical | Grammatical | Grammatical | Grammatical |
| Informational | Accentual/Discourse | Informational | Informational |
| | | Textual | Discourse (Cohesive) |
| | | Psychological | Psychological |
| | | Indexical | Indexical |

Concerning the first function of intonation, as stated by the three scholars mentioned above, it can be asserted that this function of intonation, as the name suggests, serves for the expression of attitude in speech. In terms of grammatical function, Roach (1991) considers that it assists speakers with the recognition of grammatical and syntactical structure, in other words; differentiating between the statements and interrogatives. As for the informational function, Halliday (1994) suggests that it ‘marks the new or given information with or without prominence’. Different from Roach (1991) and Halliday (1994), Crystal (1995) proposed three

more functions of intonation. The first one is the textual function which helps us compare and connect larger units of meaning than the sentence. The second one is psychological function which enables speakers arrange speech into units so that they become easier to comprehend. The third one is indexical function which is considered to be an indicator of personal and social identity. It was Wells (2006) who added one more new function of intonation, which is discourse function.

Götz (2013) stressed the significance of intonation patterns and added that they execute several communicative functions and may result in sounding foreign if not produced appropriately. Collins and Mees (2013) mentioned another function of intonation, which is the focusing function. With this function, the speaker focuses on the most significant information through prominence. Similarly, Zsiga (2013) displayed the grammatical function of intonation by means of *yes/no* questions and *Wh- questions* in English. Brown (2014), on the other hand, highlights the importance of discourse function of intonation by asserting that intonation includes the placement of tonics thus it relates to the context of utterance.

As can be inferred from what has been discussed above, it is plausible to assert that the functions of intonation help speakers become more competitive and proficient in communication thus making it in a way a necessity for course books to include such functions of intonation and for teachers or teacher educators to take these functions into consideration in order for learners of English to become not only segmentally but suprasegmentally proficient as well.

### 2.4. Teaching Intonation

Various attempts have been made for the teaching of intonation and several methods and models were proposed, each focusing on teaching different elements of intonation. Since intonation instruction is valuable in many aspects, the need for effective methods and models are essential with regard to teaching the intonation of English. There have been some researchers who touched upon only one or two elements of intonation (Levis, 1999, 2002; Jenkins, 2004; Pickering, 2004) while there have been others who claimed that the teaching of intonation is difficult (Roach, 1991; Thompson, 1995). However, the significance of teaching intonation was advocated in many studies which were cited throughout this study. Upon a

thorough review of the literature, the approaches, methods, and techniques for teaching intonation will be discussed in the following sections.

### 2.4.1. Approaches to Teaching Intonation

The approaches to teaching intonation can be categorized into traditional and discourse-based approaches. The traditional approach is concerned with the focusing, grammatical and attitudinal functions of intonation, which promotes de-contextualized intonation instruction while the discourse-based approach focuses on discourse function of intonation in addition to the other three functions. Furthermore, the discourse-based approach advocates contextualized intonation instruction. Since the significance of intonation is best understood in connected speech, it can thus be suggested that intonation must be taught in a contextualized manner. For a general approach to teaching pronunciation, two approaches were proposed: one being the Intuitive-Imitative Approach and the other being Analytic-Linguistic Approach. As expressed by Celce-Murcia et al. (2010), an Intuitive-Imitative Approach "depends on the learner's ability to listen to and imitate the rhythms and sounds of the target language without the intervention of any explicit information" (p. 2) while an Analytic-Linguistic approach "utilizes information and tools and other aids to supplement listening, imitation, and production and explicitly informs the learner of and focuses attention on the sounds and rhythms of the target language" (p. 2).

Based on Analytic-Linguistic Approach (Celce-Murcia et al., 2010), Demirezen (2007) proposed Audio-Articulation Model for "teaching, correcting, and curing the problem-causing core sounds in the pronunciation of non-native teachers of English, generally moving from raising awareness of an aspect of the fossilized pronunciation mistake of the target language to perception or focused listening and then exhortation of exercises towards oral practice" (p.130). Halliday (1985) came up with Systemic-Functional Model of the Intonation of Clauses in English after intonation was incorporated into an utter model of language in the 1960s. In his model, Halliday (1985) concluded that intonation is related to phonology, grammar, information structure, attitude, and systems. Brazil (1997), inspired by Halliday's formal descriptions, developed intonation into a complete theory and called it

Discourse Intonation. In its basic form, Discourse Intonation specifies that all the intonation choices made by speakers are a function of the discourse developing between them. It assists speakers to figure out how their utterances are related to each other and to the discourse. Furthermore, a key feature of the theory is that all intonation choices are context-bound; namely they are connected to the context in which they occur. Brazil (1994) proposed a course called Pronunciation for Advanced Learner of English (PALE) which encourages learners to "see pronunciation from the point of view of how it can best enable them to make their meanings and intentions clear to the listener" (p. 2).

One of the models that the present study is based on, Grammar Intonation Model (Cauldwell & Hewings, 1996), relies on a model which explores a correlation between grammar and intonation (Thompson, 1995). The fact that rising intonation is used with *yes/no questions* and falling intonation is used with *Wh-questions* can be included in this model. In other words, using varied intonation patterns lead to a category shift in the grammar of the statement, hence it is quite significant to keep in mind this function of intonation. Another model that the current study is interested in, Discourse Intonation Model (Brazil, 1975), as aforementioned, deals with the communicative function and interactive significance of intonation. It connects intonation to an existent description of discourse structure and examines the common position of intonation in language teaching and how this particular description can be taught. It also encourages learners to conduct their own analyses through a wide range of examples.

### 2.4.2. Methods and Techniques for Teaching Intonation

Upon thorough investigation of the literature, the following suggestions were found to be effective in teaching pronunciation and intonation. First, imitation, which is regarded as the basic technique in most pronunciation practice, promotes listening to and repeating a model (native speaker or near-native speaker) as accurately and fluently as possible. In the absence or non-existence of native speakers, English dictionaries can also be utilized when listening to sample sentences or organizing a corpus of sentences/words in the teaching of pitch variations. Bowen and Marks (1992) suggested "shadowing" a piece of natural conversational English by listening to a selected section and then talking along with the voice in

the recording. In addition to imitation, discrimination is another important technique used for raising awareness and engaging learners. Secondly, matching exercises in which learners are asked to match what they hear to a written form or an appropriate context or response, are an extension to transformation exercises. Kelly (2001, p.95), for instance, provided some matching exercises on the intonation of questions tags which aimed to develop a degree of competence. Discussion and noticing techniques can also be very effective, yet all the techniques explained so far focus on form, isolating the functions of intonation. Baker (1981, p.5) contributed to the teaching of intonation with the inclusion of a technique which provides learners a model and asks them to apply that model themselves in another context. Such practice is of great value in that it is communicative and highlights the significance of functions as well. As reported by Tench (2005), Bradford (1988) recommended another technique called “seeded conversation”, which is a constructed dialogue deliberately devised for the ‘planting of seed’ of a certain phonological feature as many times as possible, to ensure rigorous practice. For this technique to work well, proper situations are needed so that certain features of intonation would naturally occur in these situations. Another way to teach intonation has been through speech visualization technology which was favored by many (De Bot, 1980, 1983; Anderson-Hsieh, 1992; Hincks, 2003; Levis & Pickering, 2004; Chun, 2013). Freely downloadable programs such as WASP (Huckvale, 2003) and PRAAT (Boersma & Weenink, 2004) and commercial programs such as VisiPitch (Kay Elemetrics Corporation, 2004) have expedited the preeminence of intonation at the level of sentence in place of endorsing the production of intonation in discourse level. Therefore, such programs have fallen short of providing a complete discourse methodology for the teaching of intonation. Anderson-Hsieh (1994) touched on the most effective way of teaching intonation in the following paragraph:

> *It has been found that suprasegmentals can be most effectively taught through the use of equipment which extracts pitch and intensify from the speech signal and presents the information on a video screen in real time, providing instantaneous visual feedback on stress, rhythm, and intonation (p.6).*

In all the methods and techniques explained so far, it must be stressed that they have to be as communicative as possible along with the provision of such practice with authentic materials. As Underhill (1994) emphasized, it must also be born in

mind that language learning is a holistic process which engages real people in authentic interpersonal communications. Considering the effectiveness of intonation in connected speech, methods and techniques for teaching intonation must provide the practice about the elements of intonation in contexts since decontextualized instruction will likely to fail or fall short in terms of developing EFL learners' phonological competence.

### 2.4.3. Factors Affecting Intonation Teaching

The factors affecting the teaching of intonation and prosody can be examined and discussed under four categories: complex nature of intonation/prosody, prosodic typology, teachers' lack of interest and competence, and phonological awareness. With regard to the complex nature of intonation/prosody, Wong (1994) stated that intonation teaching practice is often discouraged owing to its ineffectiveness. Mitrofanova (2012) asserted that the complexity of intonation research and teaching comes from the subconscious nature of intonation. She also added that L2 intonation would hardly be acquired without special training in L2 classroom environment for it can be easily replaced by habitual L1 tunes. Another factor reported by Mitrofanova (2012) is that intonation seems to be devoid of meanings of its own, with the exception of attitudes and emotions. In this respect, intonation resembles phonemes, which possess no meaning of their own but are capable of playing a distinctive role.

In terms of prosodic typology, it can be argued that the prosody of English is completely different than that of Turkish in that English is a stress-timed language while Turkish is syllable timed. Because of the differences in their native language and the target language (English), Turkish speakers of English (here prospective EFL teachers) can have difficulty in acquiring the prosody of the target language. Before touching on the research on the influence of prosodic typology on intonation/prosody instruction, the stress-timed vs syllable-timed dichotomy needs to be explained. Ladefoged (1982) expressed that the term stress-timed and syllable-timed is used to characterize the pronunciation of languages that display a rhythm. As Avery and Ehrlich (1992) discussed, prospective teachers of English need to learn how to apply correct stress in sentences as stress-timed languages

entail. As Bertran (1999) stated, both kinds of “linguistic rhythm” (stress-timed vs. syllable-timed languages) are characterized by the recurrence of a given element at regular intervals; however, the element is a stressed vowel in certain languages while it is the limit of the syllable in others.

Regarding teachers’ lack of interest and competence in teaching intonation/ pronunciation, Gilbert (2008) expressed that teachers do not have enough time to give proper attention to this aspect of English instruction, and discouraged results and students often lead to avoidance of pronunciation altogether. Derwing and Munro (2005) argued that those untrained instructors who do choose to teach pronunciation may rely heavily on pronunciation textbooks and software regardless of their own students’ problems. There might arise two concerns here. First, untrained instructors may not depend on their own knowledge of the intonation or pronunciation of the target language. Second, they neglect the needs of their students for the sake of doing some practice on pronunciation with the help of textbooks which do not wholly cover or provide communicative activities for students. In relation to teachers’ lack of knowledge of phonetics, Wang and Munro (2004) noted that English as a second language (ESL) learners sometimes experience pedagogical misdirection. Derwing and Munro (2005) also discussed that ESL instructors who have not had opportunities for professional development in pronunciation teaching may develop some teaching strategies that actually have little or no value or that may be counterproductive. Consequently, the training of prospective EFL teachers is salient.

In relation to phonological awareness, Anthony and Francis (2005) described phonological awareness as “an individual’s level of sensitivity to the sound structure of oral language”. At suprasegmental level, however, phonological competence, according to Hişmanoğlu (2012), refers to an EFL learner’s degree of sensitivity to suprasegmental aspects of a language (i.e. stress, pitch, juncture and intonation) and it denotes an EFL learner’s ability to recognize main stress in words, compound words, phrases, and sentences, rising intonation in *yes-no* questions, and falling intonation in *Wh-questions* and normal statements. As Atak-Damar (2014) discussed, phonological competence is one of the sub-categories of linguistic competence, a prerequisite for language mastery according to Common European Framework of Reference for Languages (CEFR) (Council of Europe,

2001) and therefore EFL teachers are expected to assist both themselves and their students with the recognition and production of prosody of the target language. However, remedial training on pronunciation and intonation is one of the most neglected areas in Turkish teacher education setting (Demirezen, 2010, 2014). As for the importance of phonological awareness in teaching intonation, Venkatagiri and Levis (2007) expressed that phonological awareness may influence the comprehensibility of EFL speech and added that large amounts of overt knowledge of phonological patterns and rules may enable the realization of higher level of comprehensibility in speech.

To summarize, a great number of teachers avoid or neglect teaching pronunciation, in general, and intonation in specific due to the reasons discussed. However, prospective teachers of English and teachers-on-the-job must receive special training on intonation bearing in mind the fact that phonological competence, which is considered a sub-category of linguistic competence that is required for the mastery of a target language according to CEFR (Council of Europe, 2001). Furthermore, teacher trainees and teachers-on-the-job must also be trained in intonation in terms of professional development and work ethics. Now that linguistic competence is expected of a language learner to master a target language, it is urgent for non-native teachers of English to improve their phonological competence and thus teach intonation to their students ultimately.

### 2.5. Research on Intonation

In the field of applied linguistics, there has been a great amount of research conducted on pronunciation and intonation in different contexts. A number of researchers emphasized the importance of intonation (Levis, 1999, 2002; Jenkins, 2004; Pickering, 2004). With that in mind, the research conducted on intonation will be presented under two categories: those carried out in Turkish and non-Turkish contexts. In order to investigate the effectiveness of IBM SpeechViewer program, one of the purposes of use of which is to practice with intonation, emphasis, and phrasing and practice on contrasting vowels, word stress, particular problem sounds, loudness, linking, and rhythm; Stenson et al. (1992) examined the log entries of international teaching assistants (ITAs) at the University of

Minnesota and reported that the qualitative data demonstrated positive results while the quantitative data was statistically insignificant. It can be inferred from this study that the participants were enthusiastic about the program, yet the results of the quantitative measure were not the same as they expected. This also suggests that raising the awareness of the participants is not enough; ITAs or prospective teachers of English in our case, should deliberately be subject to treatment sessions on intonation through alternative methods which focus on communication that present the subject in a contextualized manner. In their study, Derwing et al. (1997) explored the effect of a 12-week course centered in prosodic features on the fossilized pronunciation skills of ESL learners and discovered that pronunciation instruction with less importance on segmental units and more importance on prosody and general speaking features can conclusively alter the individuals' fossilized pronunciation patterns. In their quasi-experimental study, Tanner and Landon (2009) collected data from the NNS participants who were given different tasks on perception and elicitation and found that the intervention significantly affected the perception of pausing, word stress, and controlled production of word stress. It was revealed that the effective use of suprasegmentals by L2 learners may be able to camouflage their segmental errors (Gilbert, 2012). Gordon et al. (2013) argued that suprasegmental-based instruction is likely to be more effective than segmental-based instruction. With that in mind, it might be plausible to assert that teaching suprasegmentals will not only assist learners – prospective EFL teachers in our case – to raise their awareness and enhance their phonological competence but also help them conceal their segmental incompetence to some extent.

Concerning the research on stress in non-Turkish contexts, Juffs (1990, p.107) revealed that Chinese leaners of English placed the primary stress on virtually every lexical item, whether it be semantically important or a function word. This finding suggests and highlights the significance of intonation instruction bearing in mind the fact that this being the case with learners of English, it must thus be urged that non-native teachers of English and teacher trainees should also be subject to treatment sessions in pronunciation and intonation. Dalton and Seidlhofer (1994) equivalently argued that primary stress can be taught and has a great value for communication. Likewise, Pennington and Ellis (2000), for

instance, stressed that explicit instruction considerably improved learners' production of primary stress. Hahn (2004) similarly argued that accurate production of sentence stress, in comparison to misplaced stress, will enable ESL speakers to be better understood and lead to enhanced recall of content. In a similar vein, Field (2005, p.419) surmised that the inclusion of incorrect lexical stress in speech seriously influence the ability of both native and non-native listeners to identify words in connected speech. In Turkish context, the amount of research on stress is limited. Demirezen (2012), for instance, examined the relationship between word stress and vocabulary item relations in teacher training and concluded that the awareness of the function and importance of word stress have a facilitating effect on vocabulary acquisition. Similarly, Hişmanoğlu (2012) researched the problem-causing word stress patterns for Turkish EFL learners and concluded that internet-based pronunciation lesson help Turkish EFL learners enhance accurate production of stressed syllables in English words. Arslan (2013) investigated the phonological competence of non-native pre-service teachers of English in lexical and sentential stress and concluded that they can achieve phonological competence if provided with opportunities to practice various elements of English pronunciation. In another study, Demirezen (2015) explored the perception of primary stress in initially extended simple sentences and confirmed that Turkish students have problems with hearing the stressed content words and thus need urgent treatment sessions.

In relation to the research on pitch carried out in non-Turkish contexts, De Bot (1986) investigated the effectiveness of visual pitch feedback on Dutch learners of English and determined that audio-visual feedback was more significant than auditory-only feedback. Wennerstrom (1994, p.409) reported that NSs of Thai, Japanese, and Spanish could not succeed in producing the pitch movement to emphasize contrastive information to the same degree that NSs of English do. It was also found in some studies that paratone structure is a cue for the hearer as to the informational structure (Wennerstrom, 2001; Pickering, 2004), however, the ability to indicate the paratone boundaries by NNSs is restricted (Cutler et al., 1997; Geluykens & Swerts, 1994) as they tend to exhibit a thin and shortened pitch range when compared to that of NSs (Mennen, 1998; Pickering, 2004). In Turkish educational settings, the research conducted on teaching pitches or the

influence of pitches on intelligibility and comprehensibility is scarce. Demirezen (2014) examined the tag questions for certainty/uncertainty issue in pitches in Turkish setting and concluded that the participants, because of negative L1 transfer, failed in producing the accurate pitch patterns and intonation contours and therefore they must be urged to receive practice.

With regard to juncture research conducted in non-Turkish settings, Blau (1990) revealed that the effect of proper patterns of pausing in native English speech on non-native listeners' comprehension was greater than either syntactic complexity or speech rate. Similarly, Fayer and Krasinski (1995) reported that pause length is prominently correlated with native speakers' intelligibility judgment of non-native English speech. In their study, native speakers considered the speech of non-native speakers with appropriate pause length more intelligible than that of with longer individual pauses. Furthermore, Towell et al. (1996) acknowledged that as pausing patterns of British learners of French, their overall fluency improved as measured by speaking rate. Trofimovich and Baker (2006) explored the relationship between accentedness ratings and five suprasegmental scores and found that duration of pauses generated by Korean learners of English seemed to have most prominently predicted accentedness ratings, which accounts for about 37% variance. Within Turkish context, Demirezen (2013) conducted a study on sustained juncture in spoken English and concluded that phonemes no near native-like intonation is achievable without a systematic teaching of juncture as juncture phonemes are potential determinants of building non-native accents. Similarly, Demirezen (2009) urged that an adequate analysis and practice of English intonation in relation to stress, pitch, and especially to juncture is needed in teacher training curricula of Turkish teacher education programs in Turkey.

Apart from the research on the elements of intonation, the research on teachers' and teacher trainees' lack of training and knowledge must also be discussed here. For instance, Breitkreutz et al. (2002) examined the ESL teachers and found that 67% had no training in pronunciation instruction. Derwing and Munro (2005) also cited a number of studies which touched on the absence or insufficiency in the number of qualified teachers with knowledge of pronunciation instruction in other English-speaking countries. That being the case in mainstream English speaking countries, it would be dreadful to think about the situation in Turkish context. In

addition to the disadvantages of being a non-native speaker of English, Turkish teachers of English must take on great responsibility in terms of remediating their deficiency in pronunciation and intonation and learning to teach different aspects of intonation. Arslan (2013), for instance, concluded in his study that pre-service teachers of English can enhance their competence in allocating the stress in words and sentences if provided with opportunities to practice different elements of English pronunciation while in their undergraduate studies. It can be inferred from this study that a specific curriculum must be developed for undergraduate education for prospective Turkish teachers of English. Demirezen (2012), in a similar sense, determined that stress, being one of the common cores of phonological features, would establish a framework for intelligible speech if taught thoroughly. This also encourages the necessity for a systematic training or education in suprasegmentals.

Regarding the focus of this study, *If-clauses*, a few points need to be made clear about their construction and significance. Five different *If-conditionals* exist in English including zero, first, second, third and mixed. *Type 0* or zero conditionals are used to describe a factual implication rather than a hypothetical situation or potential future circumstance. Both clauses in *Type 0* are often used in present simple tense. However, the main clauses can also be formulated with other tenses or moods. *Type 1* conditionals, or first conditionals, are used to describe what will or probably won't happen (Alexander & Close, 1990). While all present tenses are used after *If*, all future tenses are used in the main clauses. *Type 2,* second conditionals, is used to describe what is totally impossible (Alexander & Close, 1990). While simple past tense is used in *If-clause*, would or could is used in the main clause depending on the certainty of the event. *Type 3* conditionals or third conditionals are often used to express regret, etc. about things that can now never happen (Alexander & Close, 1990). Simple or progressive forms can be used in *If-clause*, while past modal forms are used in the main clause. As expressed by Alexander and Close (1990), speakers of English do not stick rigidly to three types of conditionals. They can use any tenses in *If-clauses*, on some occasions, depending on the context. This usage of *If-clauses* is called the *mixed type*, or *mixed conditionals*.

In English *If* serves both as a protasis marker and as an interrogative subordinator and thus the difference between the argument and non-argument can only be recognized from the intonation or punctuation (Zaefferer, 1991). The following two sentences can be used to exemplify this phenomenon:

(1) I will ask Maria if she prefers that.
(2) I will ask Maria, if she prefers that.

In (1) above, *If* presents an interrogative clause and could be replaced by whether while in (2) *If* represents a conditional clause. As can be understood, the use of appropriate intonation patterns and punctuation is of great significance in *If-clauses* in that it may lead to shifts both in meaning and grammatical category in the statement. Chen (1999) stressed the relationship between pauses and punctuation and urged that the information provided by pauses is crucial. Narayanan et al. (2009) reported that a sentence can automatically be segmented into a condition and a consequent clause by simply using linguistic and punctuation rules.

With regard to the construction of *If-clauses*, the important characteristics of conditional sentences is considered to be the mutual dependency between the two clauses of the conditional construction (Comrie, 1986; Dancygier, 1998; Ziegeler, 2000; Palmer, 2001). Therefore, it can be asserted that the corpus of the present study includes both prescriptive and neutral conditionals; the first has a cause-effect relationship whereas the latter does not express any attitude. To illustrate, the following sentences from the corpus of this study can be provided as follows:

(1) You'll be missing the boat if you don't buy these shares now (Predictive conditional)
(2) If I'd left home earlier, I wouldn't have missed the train (Counterfactual conditional)

In (1), there is a prediction in terms of cause-effect by means of one event on condition of another. Frankly speaking, whether you will miss the boat depends on your purchase of these shares. In case of (2), as Dancygier (1998) expressed, the speaker has no grounds to assert any propositions. That is, the speaker neither has any reasons nor believes that the assertion is true.

However, the construction and the phenomena of prediction and counter-factuality or neutrality is confusing. In relation to the intonation of *If-conditional*, Dancygier (1999) suggests that certain formal features are displayed by conditional sentences such as verb forms, typical clause order, or intonation, each of which correlates to aspects of interpretation such as the role of contextual information or the speaker's knowledge. In other words, it can be inferred that the type of intonation used in conditional sentences may bring about different meanings intended to be conveyed. For that reason, the use of correct intonation patterns in *If-conditional* sentences is eloquent so as not to convey wrong information or unintended emotions. For Declerck and Reed (2001), the *If-clauses* which are separated by a comma or dash are preceded by a break in intonation. This suggests the existence of a sustained terminal juncture in case of a comma or dash preceded by the *If-clause*.

It must be stressed that there is a scarcity of research on *If-clauses* or conditionals. Dachkovsky (2004), for example, concluded in her study that raised brows are associated with neutral conditionals whereas raised brows with squinted eyes refer to counterfactual conditionals in Israeli Sign Language. Dachkovsky (2004) also argued that the important role of intonation in the interpretation of conditionals has rarely been discussed in detail although its significance has been acknowledged in spoken languages. Hayati (1998) compared the intonation patterns of English and Persian in several grammatical structures including *If-conditional* as well. He concluded that the *If-clause* may have a /2 3 2/ pattern with a low rise while the subordinate clause gets /2 3 1/ falling intonation, but the most common would be to have no rise at the end of the *If-clause*. However, the production of intonation patterns is context-dependent. As reported by Tarone (1973), there were thirteen utterances in which the *If-clause* of a conditional sentence occurred without the *If*, marked by intonation instead. In other words, the *If-clause* was replaced by different intonation patterns.

As can be seen from the above citations from different research, there is an extensive research gap on teaching the intonation of *If-clauses*, which does not seem surprising considering the amount of importance given to teaching intonation. It must also be pointed out that the cited research on *If-conditionals* do not completely refer to the main focus of this study due to the fact that it has not

been studied before. Furthermore, to the best knowledge of the researcher, there is no thesis study conducted on teaching the intonation patterns of *If-clauses* either. For these reasons, it was considered by the present researcher that the investigation of intonation instruction in *If-clauses* to prospective Turkish EFL teachers within Turkish teacher education settings would be beneficial as a valuable contribution to the current literature by provision of empirical data on teaching the intonation of *If-clauses* and suggestions for further research.

Below is the list of sentences in the corpus which were presented with detailed intonation descriptions including stress, pitch, and juncture. The following sentences were downloaded via Audacity program in 44100 Hertz from Longman English Dictionary (2008) and course books.


**Figure 2.2: Type 1 Sentence 1**

/If he resigns, it will be an admission of guilt. / (Pitch Phonemes) ***/232 →231/***

/If he resigns→it will be an admission of guilt ↓/ (Juncture Phonemes) /→ / ↓/

/ If he **reSÍGNs**, it will be an **adMÍSSion** of guilt. / (Primary Stress) ***/´/***

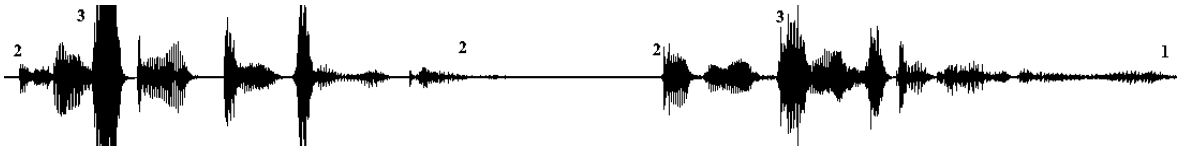



**Figure 2.3: Type 1 Sentence 2**

/If I start teaching again, I'll be exhausted after a year. / (Pitch Phonemes) ***/232 →231/***

/ If I start teaching again→ I'll be exhausted after a year ↓/ (Juncture Phonemes) /→ / ↓/

/ If I start **TÉACHing** again, I'll be **exHÁUSTed** after a year. / (Primary Stress) ***/´/***

**Figure 2.4: Type 1 Sentence 3**

/If Julie doesn't get her act together, she'll never graduate. / (Pitch Phonemes) ***/232 →231/***

/If Julie doesn't get her act together→ she'll never graduate↓/ (Juncture Phonemes) /→ / ↓/

/ If Julie doesn't get her **ÁCT** together, she'll **NÉVer** graduate. / (Primary Stress) ***/´/***

**Figure 2.5: Type 1 Sentence 4**

/If my kids go to a friend's house, they'll call me. / (Pitch Phonemes) ***/232 →231/***

/If my kids go to a friend's house → they'll call me ↓/ (Juncture Phonemes) /→ / ↓/

/ If my **KÍDs** go to a friend's house, **THÉY'll** call me / (Primary Stress) ***/´/***

**Figure 2.6: Type 1 Sentence 5**

/If the crops fail again, it will be a calamity for the country. / (Pitch Phonemes) ***/232 →231/***

/ If the crops fail again→ it will be a calamity for the country ↓/ (Juncture Phonemes) /→ / ↓/

/ If the **CRÓPs** fail again, it will be a **caLÁMITY** for the country. / (Primary Stress) ***/´/***

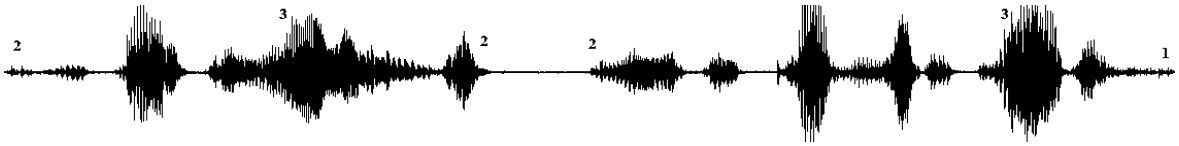


**Figure 2.7: Type 1 Sentence 6**

/If you break the rules, you will be punished accordingly. / (Pitch Phonemes) ***/232 →231/***

/ If you break the rules →you will be punished accordingly ↓ / (Juncture Phonemes) /→ / ↓/

/ If you break the **RÚLEs**, you will be punished **acCÓRDINGly.** / (Primary Stress) ***/´/***

**Figure 2.8: Type 1 Sentence 7**

/It's hard to teach students if they lack interest in the subject. / (Pitch Phonemes) ***/232 →231/***

/ It's hard to teach students → if they lack interest in the subject ↓ / (Juncture Phonemes) /→ / ↓/

/ It's **HÁRD** to teach students if they lack interest in the **SÚBJECT**. / (Primary Stress) ***/´/***

**Figure 2.9: Type 1 Sentence 8**

/Kim will be disappointed if she figures it out. / (Pitch Phonemes) ***/232 →231/***

/ Kim will be disappointed → if she figures it out ↓/ (Juncture Phonemes) /→ / ↓/

/ Kim will be **disAPPÓINTed** if she figures it **ÓUT**. / (Primary Stress) ***/´/***

**Figure 2.10: Type 1 Sentence 9**

/My wife will kill me if I don't get home soon. / (Pitch Phoneme) ***/231/***

/ My wife will kill me if I don't get home soon ↓/ (Juncture Phoneme) ***/↓/***

/ My wife will **KÍLL** me if I don't get home soon**.** / (Primary Stress) ***/´/***

**Figure 2.11: Type 1 Sentence 10**

/We won't get anything done if you two don't stop carrying on. / (Pitch Phonemes) ***/232 →231/***

/ We won't get anything done → if you two don't stop carrying on ↓ / (Juncture Phonemes) /→ / ↓/

/ **WÉ** won't get anything done if **YÓU** two don't stop carrying on. / (Primary Stress) ***/´/***


**Figure 2.12: Type 1 Sentence 11**

/You'll be missing the boat if you don't buy these shares now. / (Pitch Phoneme) ***/231/***

/ You'll be missing the boat if you don't buy these shares now ↓ / (Juncture Phoneme) ***/↓/***

/ You'll be missing the **BÓAT** if you don't buy these shares now**.** / (Primary Stress) ***/´/***


**Figure 2.13: Type 1 Sentence 12**

/You'll enjoy it if you read it. / (Pitch Phoneme) ***/231/***

/ You'll enjoy it if you read it ↓/ (Juncture Phoneme) ***/↓/***

/ You'll **enJÓY** it if you read it. / (Primary Stress) ***/´/***


**Figure 2.14.: Type 2 Sentence 1**

/If anything happened to the kids, I'd never forgive myself. / (Pitch Phoneme) ***/231/***

/ If anything happened to the kids I'd never forgive myself ↓/ (Juncture Phoneme) ***/↓/***

/ If anything happened to the **KÍDs**, I'd never forgive myself. / (Primary Stress) ***/´/***


**Figure 2.15.: Type 2 Sentence 2**

/If I told them my real feelings, they would just laugh at me. / (Pitch Phonemes) ***/232 →231/***

/ If I told them my real feelings → they would just laugh at me ↓/ (Juncture Phonemes) /→ / ↓/

/ If I told them my **RÉAL** feelings, they would just **LÁUGH** at me. / (Primary Stress) ***/´/***

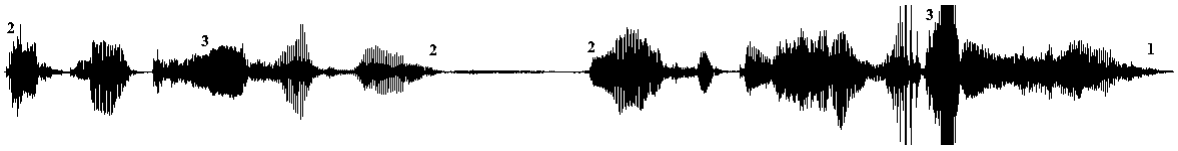


**Figure 2.16: Type 2 Sentence 3**

/If my car had one, life would be so much easier. / (Pitch Phonemes) **/232 →231/**

/ If my car had one → life would be so much easier ↓/ (Juncture Phonemes) /→ / ↓/

/ If my car **HÁD** one, life would be so **MÚCH** easier. / (Primary Stress) **/´/**

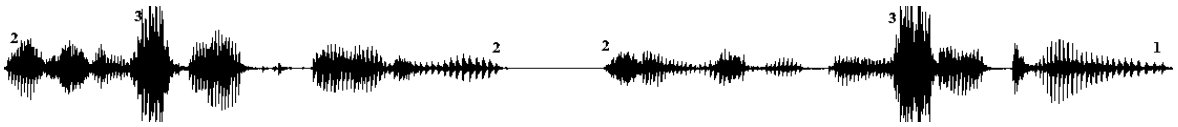


**Figure 2.17: Type 2 Sentence 4**

/If she slept earlier, she wouldn't feel so tired. / (Pitch Phonemes) **/232 →231/**

/ If she slept earlier → she wouldn't feel so tired ↓ / (Juncture Phonemes) /→ / ↓/

/ If she **SLÉPT** earlier**,** she wouldn't feel **SÓ** tired**.** / (Primary Stress) **/´/**

**Figure 2.18: Type 2 Sentence 5**

/If they needed a computer, they'd buy one. / (Pitch Phonemes) **/232 →231/**

/If they needed a computer → they'd buy one ↓/ (Juncture Phonemes) /→ /↓/

/ If they needed a **COMPÚTER**, they'd **BÚY** one. / (Primary Stress) **/´/**

**Figure 2.19: Type 2 Sentence 6**

/If they were at the park at that time, they wouldn't know what to do. / (Pitch Phonemes) **/232 →231/**

/If they were at the park at that time→they wouldn't know what to do ↓ / (Juncture Phonemes) /→ /↓/

/If they were at the park at **THÁT** time, they wouldn't **KNÓW** what to do./ (Primary Stress) **/´/**

**Figure 2.20: Type 2 Sentence 7**

/I wouldn't fly with that airline if I were you. / (Pitch Phonemes) ***/232 →231/***

/I wouldn't fly with that airline → if I were you ↓/ (Juncture Phonemes/→ /↓/

/I wouldn't **FLY** with that airline if I **WÉRE** you. / (Primary Stress) ***/´/***

**Figure 2.21: Type 2 Sentence 8**

/I'd get one tomorrow if I had enough money. / (Pitch Phoneme) ***/231/***

/I'd get one tomorrow if I had enough money ↓/ (Juncture Phoneme) ***/↓/***

/I'd get one **toMÓRROW** if I had enough money. / (Primary Stress) ***/´/***

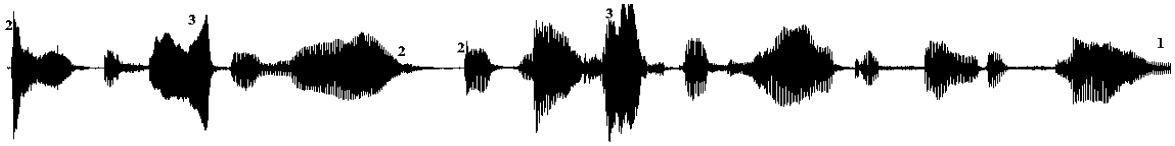


**Figure 2.22: Type 2 Sentence 9**

/I'd travel more if my husband weren't afraid of flying. / (Pitch Phonemes) ***/232 →231/***

/I'd travel more → if my husband weren't afraid of flying ↓ / (Juncture Phonemes) /→ /↓/

/I'd travel **MÓRE** if my **HÚSBAND** weren't afraid of flying. / (Primary Stress) ***/´/***

**Figure 2.23: Type 2 Sentence 10**

/Investigators would be remiss if they didn't pursue every possible lead./(Pitch Phonemes)***/232 →231/***

/Investigators would be remiss→if they didn't pursue every possible lead↓/ (Juncture Phonemes) /→ /↓/

**/inVÉStigators** would be remiss if they didn't pursue **ÉVERY** possible lead. / (Primary Stress) ***/´/***

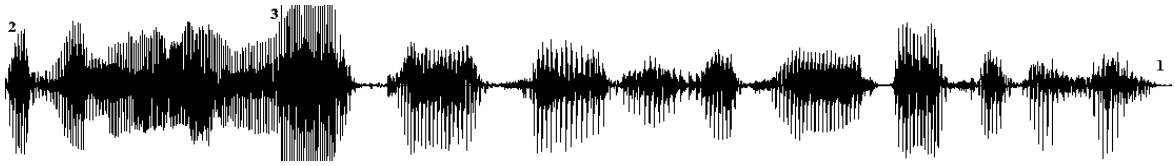



**Figure 2.24: Type 2 Sentence 11**

/It would mean a lot to your father if you offered to help. / (Pitch Phoneme) ***/231/***

/It would mean a lot to your father if you offered to help ↓ / (Juncture Phoneme) ***/↓/***

/It would mean a **LÓT** to your father if you offered to help. / (Primary Stress Phoneme) ***/´/***


**Figure 2.25: Type 2 Sentence 12**

/It'd be easier if we both did it. / (Pitch Phoneme) ***/231/***

/It'd be easier if we both did it ↓ / (Juncture Phoneme) ***/↓/***

/It'd be easier if we **BÓTH** did it. / (Primary Stress Phoneme) ***/´/***


**Figure 2.26: Type 3 Sentence 1**

/If I hadn't read the safety information, I wouldn't have acted so quickly./(Pitch Phonemes) **/232 →231/**

/If I hadn't read the safety information→I wouldn't have acted so quickly↓/ (Juncture Phonemes) /→ /↓/

/If I hadn't read the **SÁFEty** information, **Í** wouldn't have acted so quickly**.** / (Primary Stress) ***/´/***


**Figure 2.27: Type 3 Sentence 2**

/If I'd known it was you on the phone, I would have answered it. / (Pitch Phonemes) **/232 →231/**

/If I'd known it was you on the phone → I would have answered it↓/ (Juncture Phonemes) /→ /↓/

/If I'd known it was **YÓU** on the phone, I would have **ÁNSWERed** it. / (Primary Stress) ***/´/***


**Figure 2.28: Type 3 Sentence 3**

/If I'd known his number, I would have called him. / (Pitch Phonemes) ***/232 →231/***

/If I'd known his number → I would have called him ↓ / (Juncture Phonemes) /→ /↓/

/If I'd **KNÓWN** his number, I would have **CÁLLed** him. / (Primary Stress) ***/´/***


**Figure 2.29: Type 3 Sentence 4**

/If you'd asked me out to dinner, I'd have said yes. / (Pitch Phonemes) ***/232 →231/***

/If you'd asked me out to dinner → I'd have said yes ↓ / (Juncture Phonemes) /→ /↓/

/ If you'd **ÁSKed** me out to dinner, I'd have **SÁID** yes. / (Primary Stress) ***/´/***


**Figure 2.30: Type 3 Sentence 5**

/If I'd stayed in the building longer, I would have died. / (Pitch Phonemes) ***/232 →231/***

/ If I'd stayed in the building longer → I would have died ↓/ (Juncture Phonemes) /→ /↓/

/ If I'd **STÁYed** in the building longer, I would have **DÍEd**. / (Primary Stress) ***/´/***

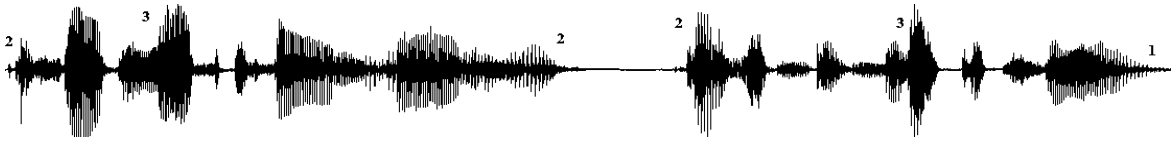



**Figure 2.31: Type 3 Sentence 6**

/If I'd left home earlier, I wouldn't have missed the train. / (Pitch Phonemes) ***/232 →231/***

/If I'd left home earlier → I wouldn't have missed the train ↓ / (Juncture Phonemes) /→ /↓/

/If I'd **LÉFT** home earlier, I wouldn't have **MÍSSed** the train. / (Primary Stress) ***/´/***


**Figure 2.32: Type 3 Sentence 7**

/I would have organized the party for you if I'd known you were coming./(Pitch Phonemes) ***/232 →231/***

/I would have organized the party for you→if I'd known you were coming↓/(Juncture Phonemes) /→ /↓/

/I would have organized the **PÁRTY** for you if I'd known you were **CÓMing**. / (Primary Stress) ***/´/***

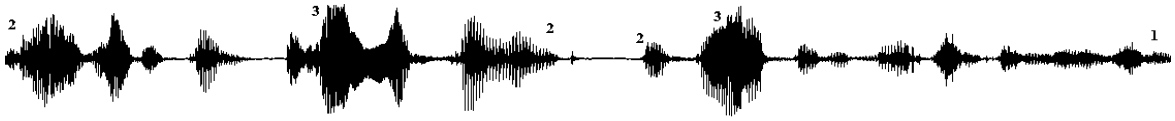



**Figure 2.33: Type 3 Sentence 8**

/I would have been terrified if I'd been in that situation. / (Pitch Phonemes) ***/232 →231/***

/I would have been terrified → if I'd been in that situation ↓ / (Juncture Phonemes) /→ /↓/

/I would have been **TÉRRIFied** if **Í'd** been in that situation. / (Primary Stress) ***/´/***


**Figure 2.34: Type 3 Sentence 9**

/I would have bought the dress if it hadn't been so expensive. / (Pitch Phoneme) ***/231/***

/ I would have bought the dress if it hadn't been so expensive ↓ / (Juncture Phoneme) ***/ ↓/***

/I would have **BÓUGHT** the dress if it hadn't been so expensive. / (Primary Stress) ***/´/***


**Figure 2.35: Type 3 Sentence 10**

/I definitely would have remembered if you'd told me. / (Pitch Phoneme) ***/231/***

/I definitely would have remembered if you'd told me ↓ / (Juncture Phoneme) ***/↓/***

/I definitely would have remembered if you'd **TÓLD** me. / (Primary Stress) ***/´/***


**Figure 2.36: Type 3 Sentence 11**

/I wouldn't have felt so tired this morning if I'd gone to bed earlier. / (Pitch Phonemes) ***/232 →231/***

/I wouldn't have felt so tired this morning→if I'd gone to bed earlier ↓ / (Juncture Phonemes) /→ /↓/

/I wouldn't have felt so **TÍREd** this morning if I'd gone to **BÉD** earlier. / (Primary Stress) ***/´/***

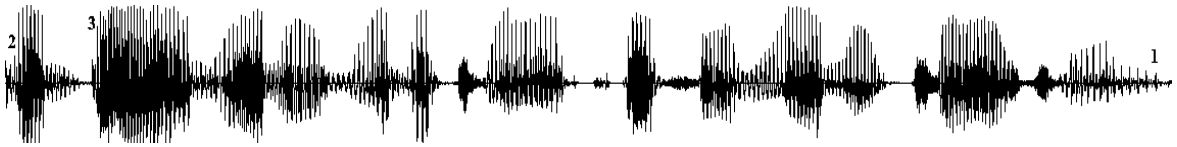



**Figure 2.37: Type 3 Sentence 12**

/The dog wouldn't have attacked if you hadn't teased him. / (Pitch Phoneme) ***/231/***

/The dog wouldn't have attacked if you hadn't teased him ↓↓ / (Juncture Phoneme) ***/↓/***

/ The **DÓG** wouldn't have attacked if you hadn't teased him / (Primary Stress) ***/´/***

## 2.6. Conclusion

A historical journey was embarked on in this chapter on the teaching of pronunciation and intonation from past to present. Then, some background information on the definition, elements, functions and significance of intonation were given. Next, approaches, methods, and techniques for teaching intonation were introduced and briefly discussed. In the last part, the research conducted on intonation in both Turkish and non-Turkish contexts were provided with profitable discussion. The urgency and vitalism for teaching suprasegmentals, intonation in specific, were also stated and discussed in this chapter. This chapter was concluded with the introduction of the corpus of this study with detailed intonation analysis.

# 3. METHODOLOGY

## 3.1. Introduction

In the first place, the research design of this study will be introduced comprehensively in this chapter. Secondly, extensive demographic information about the participants including the sampling technique will be provided. Thirdly, the instruments for data collection will be described. As the primary instrument for data collection of this study consists of a corpus of *If-clauses* in English, the process of forming this corpus will be characterized explicitly with the provision of information on the validity and reliability issues of the instrument. Furthermore, the procedures followed for collecting the data for this study will be explained in depth. In brief, the purpose of this chapter is to provide comprehensive information on the research design of this study, the participants, data collection and analysis.

## 3.2. Research Design

A pre-test post-test experimental research design was adopted to provide answers to the research questions of this study. To corroborate the results of this study, the participants were given written and oral pre-tests and post-tests; the first aims to assess their competence in recognizing the intonation patterns of English while the second one aims to evaluate the production of accurate intonation patterns of *If-clauses*. The participants' recordings were assessed by three experts in the field. For the first part of this design, the participants were given a written pre-test and post-test consisting of a total 36 multiple choice questions on *If-conditional* sentences with 12 questions on *Type 1*, *Type 2* and *Type 3* conditionals consecutively. These sentences were chosen according to some criteria such as the quality of the sound and the length of the sentences and with the help of a jury of three who are experts in their fields. The sentences were downloaded via Audacity Program in 44100 Hertz from Longman English Dictionary (2008) and several course books. In 6 of these 12 questions, *If-clauses* are at the beginning whereas in the other 6 questions *If-clauses* are in the middle. In the first section, the pre-test and post-test are divided into three sections.

***First Set of Sentences (Primary Stress)***

(1) If I start teaching again, I'll be exhausted after a year.
(2) If you break the rules, you will be punished accordingly.
(3) If anything happened to the kids, I'd never forgive myself.
(4) If I told them my real feelings, they would just laugh at me.
(5) If I hadn't read the safety information, I wouldn't have acted so quickly.
(6) If I'd known it was you on the phone, I would have answered it.
(7) My wife will kill me if I don't get home soon.
(8) It's hard to teach students if they lack interest in the subject.
(9) Investigators would be remiss if they didn't pursue every possible lead.
(10) It would mean a lot to your father if you offered to help.
(11) I would have organized the party for you if I'd known you were coming.
(12) I would have bought the dress if it hadn't been so expensive.

The first section of the pre-test consists of 12 questions which are intended to evaluate the participants' competence on determining the place of sentence stress in three different types of *If-clauses*. Among these 12 questions, each conditional type was given an equal number of questions. Namely, there were four questions on *Type 1*, four on *Type 2* and four on *Type 3* conditional sentences. Furthermore, in two of all four questions, *If-clauses* were at the beginning while they were in the middle in the other two.

***Second Set of Sentences (Pitch Phonemes)***

(13) If he resigns, it will be an admission of guilt.
(14) If Julie doesn't get her act together, she'll never graduate.
(15) If my car had one, life would be so much easier.
(16) If they needed a computer, they'd buy one.
(17) If I'd known his number, I would have called him.
(18) If you'd asked me out to dinner, I'd have said yes.
(19) You'll be missing the boat if you don't buy these shares now.
(20) We won't get anything done if you two don't stop carrying on.
(21) I'd travel more if my husband weren't afraid of flying.
(22) I'd get one tomorrow if I had enough money.

(23) I wouldn't have felt so tired this morning if I'd gone to bed earlier.
(24) I definitely would have remembered if you'd told me.

The second section of the pre-test is comprised of 12 questions aimed at evaluating the success of the participants on the recognition of accurate pitch patterns and the third section consists of 12 questions focusing on the recognition of juncture of *If-clauses*. Among these 12 questions, each conditional type was given an equal number of questions. Namely, there were four questions on *Type 1*, four on *Type 2* and four on *Type 3* conditional sentences. Furthermore, in two of all four questions, *If-clauses* were at the beginning while they were in the middle in the other two.

***Third Set of Sentences (Juncture Phonemes)***

(25) If my kids go to a friend's house, they'll call me.
(26) If the crops fail again, it will be a calamity for the country.
(27) If she slept earlier, she wouldn't be so tired.
(28) If they were at the park at that time, they wouldn't know what to do.
(29) If I 'd stayed in the building longer, I would have died.
(30) If I'd left home earlier, I wouldn't have missed the train.
(31) You'll enjoy it if you read it.
(32) Kim will be disappointed if she figures it out.
(33) It'd be easier if we both did it.
(34) I wouldn't fly with that airline if I were you.
(35) I would have been terrified if I'd been in that situation.
(36) The dog wouldn't have attacked if you hadn't teased him

The third section of the pre-test consists of 12 questions which intend to evaluate the participants' competence in recognizing and producing the appropriate juncture phonemes in *If-clauses.* Among these 12 questions, each conditional type was given an equal number of questions. Namely, there were four questions on *Type 1*, four on *Type 2* and four on *Type 3* conditional sentences. Furthermore, in two of all four questions, *If-clauses* were at the beginning while they were in the middle in the other two. In brief, the participants listened to the recordings of the sentences in the pre-test and post-test three times and were asked to choose the correct the

alternative to each question. Concurrently, for both the pre-test and post-test of this design, the participants were asked to record their voices while reading aloud the sentences in the corpus in a stress-free environment.

For the second part of the design, upon the completion of the pre-test process, the participants were given treatment sessions on the phenomenon. Two weeks following these treatment sessions, they were given a written post-test to assess their competence in the recognition of intonation patterns of *If-clauses* and in the production of intonation patterns of *If-clauses*, an oral post-test in which they were asked to record their voices in a sound-proof room while reading aloud the sentences in the corpus. The main reason for the administration of the post-test is to evaluate the effectiveness of the treatment sessions while getting participants' recordings will provide the researcher to evaluate the production of the sentences in the corpus and make an interpretation on the effectiveness of the methods used in treatment sessions. In terms of the content of these treatment sessions, a wide range of exercises were included such as multiple choice, substitution drills, matching, gap-fill exercises. These treatment sessions were executed in three separate classes, each focusing on one aspect of the intonation of *If-clauses*; that is, stress, pitch and juncture. It was intended in these treatment sessions that the participants would gain an insight into the correct use of intonation of *If-clauses* and increase their competency levels to achieve the accurate production of intonation patterns in *If-clauses*. The participants of these sessions were remediated through Audio Articulation Method (Demirezen, 2003, 2004) and Grammar Intonation Model (Cauldwell & Hewings, 1996; Demirezen, 2014). Various types of drills were practiced in terms of recognition and production during these sessions. Moreover, the PowerPoint presentations used in these sessions were delivered to the participants for further study outside the classroom.

Regarding the procedure of the execution of treatment sessions, the participants were first given a brief introduction on the definition and significance of intonation. They were then introduced to the corpus of this study both auditorily and visually. The sentences in the corpus, which were produced by native speakers of English, were listened to by the participants. The participants then practiced the elements of intonation; namely, stress, pitch and juncture at the level of recognition by means of many other examples. In these recognition drills, they were asked to

identify where the nuclear stress was, where the pitch rose, and where the speaker paused. Later in the production drills, the participants were asked to produce the sentences and given feedback by the instructor on their errors if any. The drills utilized in these treatment sessions were executed from the simplest to the hardest.

For the third part of the design, two weeks following these rehabilitation sessions, the participants were given the same written and oral post-tests. The written post-test was conducted at the foreign language department of the university where this study was carried out while the oral post-test was conducted by the participants in a stress-free and sound-proof environment. The post-tests were conducted at least two weeks after the treatment sessions in order to eliminate the potential factors arisen from the phonetic memories of the participants. Some of the participants might use phonetic memory strategies to recall the accurate production of intonation patterns as the use of a phonetic memory strategy (Baddeley, 1978; Crowder, 1978) facilitates the retention of item order. For this reason, the post-tests were delayed and conducted at least two weeks after the treatment classes.

### 3.3. Setting and Participants

A total number of 61 prospective EFL teachers studying at English Language Education department of a state university in Ankara were the participants of this study. They were first-year students who were trying to get their BA in English Language Teaching. All the participants took part in the pre-tests and post-tests after their consent was obtained through voluntary participation forms. As all the participants were pre-service ELT teachers, the group that they formed was homogenous. Of the 61 participants 13 was male while 48 was female students. In other words, approximately 21% of the participants was male while 79 % of them was female. All the participants were aged between 18-21.

Regarding the background of the participants, they all took a course titled “Listening and Articulation I” in the first term. In the spring term of 2015, they took another course titled “Listening and Articulation II”. Therefore, the background of the participants was considered equal in terms of their knowledge and competence in intonation. In terms of their proficiency levels in English language, the same

thing can be stated since they had taken the same proficiency test before they began their first year at the university. Thus, it can be stated that the homogeneity of the group concerning their educational background was maintained.

The participants of this study were selected because of their convenient accessibility and proximity to the researcher, therefore a convenience sampling technique was adopted in this study. The participants were chosen through convenience sampling because they were the easiest to recruit for this study. In all types of research, it is advised that the entire population be tested, yet it is almost impossible to include every individual since the population is too large. Therefore, in most research, such techniques as convenience sampling are preferred by researchers. That was the reason to choose this sampling technique for this study as well. The present researcher could gather data quickly since the participants were readily available. However, in terms of representation of the whole population, it can be stated that the convenience sampling technique for this study would be best since the current researcher was able to reach the prospective EFL teachers, who are the target population of this study.

### 3.4. Instrumentation

A corpus of 36 *If-conditional* sentences on *Type 1*, *Type 2* and *Type 3* obtained mainly from Longman Dictionary of Contemporary English (2012) and Longman Dictionary of American English (2008) as well as some course books comprise the primary instrument for this study. Such a collection of items gleaned from dictionaries and course books as an instrument for data collection was also used by several other researchers (Swan & Walter, 2011; Kelly, 2001; Wells, 2014). Upon the retrieval of the items for the corpus, the items were subject to Kuder and Richardson 20 test (KR-20) through IBM Statistical Package for Social Sciences version 22.0 (SPSS) for internal consistency. As Gliner et al. (2009) stated, the inter-item reliability is computed when each item in a test is exposed to dichotomous use. In such uses, the score of the items is described as correct/incorrect, true/false, etc. since there is no measurement as in that of Likert scale.

This corpus of 36 *If-conditional* sentences was used as an instrument in twofold. First, they were included in written pre-test and post-test. The sentences were listened to by the participants three times and the participants were asked to recognize the place of stress, pitch, and juncture respectively. Second, the participants were asked to produce those sentences in the corpus; read them aloud in a stress-free environment and record their voices while articulating the sentences. The written pre-test and post-test were conducted for recognition purposes whereas the oral pre-test and post-test were conducted for production purposes. It was intended in the written pre-test and post-test to determine whether the participants were able to identify or perceive the correct use of stress, pitch and juncture in *If-clauses*. In the oral pre-test and post-test, the purpose was to reveal whether the participants were able to produce the accurate intonation patterns of *If-clauses* upon the treatment sessions.

For the measurement of the written pre-test and post-test, it was considered that Cronbach's alpha formula would fit best in terms of inter-item reliability as the written pre-test and post-test consist of three sections, each with 12 questions which amount to 36 in total. These three sections intended to evaluate the participants' success on recognizing the place of stress, accurate pitch patterns and types of juncture in *If-clauses*. The written pre-test and post-test are comprised of 36 multiple choice questions. To compute the reliability test for the written pre-test and post-test through SPSS, the correct answers given by the participants were labelled as 1 whereas the incorrect answers were labeled as 0. According to the results of Cronbach's alpha, the coefficient was found to be reliable since the score was 0.81 for the pre-test and 0.71 for the post-test. To be more specific, for the pre-test, the first section's reliability score was found to be 0.76 the second was 0.73 and the third section was 0.83 while for the post-test, the first section's reliability was calculated as 0.71, the second section was found to be 74 and the third section was calculated as 77. In this type of measurement like Cronbach's alpha, the inter-item reliability is considered to be high if the score is larger than 0.70 (Nunnally, 1978). Therefore, in our case, the written pre-test and post-test were regarded to include reliability between test items.

For the measurement of the oral pre-test and post-test, participant evaluation chart (see Appendices) was formed by the present researcher for convenience purposes. In this chart, there are three sections, each allocated for three types of conditional sentences. Two columns were placed alongside each *If-clause* and the two columns were named as correct and incorrect. Since it is a dichotomous measurement, it was considered that KR-20 formula would be best to compute the reliability of the test items. Therefore, the items in the test were analyzed using statistics; the correct answers were labeled as 1 while the incorrect answers were labeled as 0 in statistical terms. In this type of internal consistency reliability for measures with dichotomous choices, it is often claimed that a high KR-20 coefficient (e.g. >0.75) demonstrates a homogenous test. The higher the score is, the more internal consistency there is between the test items. To be more specific, if the KR-20 coefficient is larger than 0.75, that test is considered reliable whereas KR-20 coefficient less than 0.50 indicates lower reliability or inconsistency between test items (Tan, 2009).

As mentioned earlier, the instrument for data collection for this study consist of three sections. Each section is comprised of 12 questions, with each section focusing on a different aspect of English intonation; namely, stress, pitch and juncture. For that reason, KR-20 analysis was conducted for each section separately. For the pre-test, the overall KR-20 coefficient for all three sections was found to be 0.81 (0.79 for the first section, 0.79 for the second, and 0.86 for the third section) while for the post-test, the overall KR-20 coefficient for all three sections was found to be 0.78 (0.85 for the first section, 0.77 for the second and 0.74 for the third section), which demonstrates a high consistency between items of the instrument used for data collection of this study. This has suggested that all the items in the instrument measure the same construct.

With regard to the specifics of the instrument for data collection, it was divided into three sections. The first section deals with *Type 1* conditional sentences, the second section deals with *Type 2* and the third sections deals with *Type 3*. All sections are comprised of 12 *If-conditional* sentences, with *If-clauses* at the beginning in the first 6 questions and in the middle in the latter 6. In both written and oral pre-tests and post-tests, these sections were included. In the written pre-test and post-test, the participants were asked to recognize the place of stress,

pitch patterns and types of juncture. In the oral pre-test and post-test, the participants were asked and expected to produce those sentences in the corpus accurately in accordance with the rules and information they have learned in the treatment sessions. The categorization of *If-conditionals* was executed for encompassing all three main types of *If-conditionals*. This way, the participants could handle the practice and production parts of this study more easily. Concerning this categorization, opinions of three university professors, who are experts in their fields and currently working in ELT departments, were acquired. One of the professors was also the supervisor of this thesis and is a distinguished professor in phonetics and phonology. Thus, there is almost no doubt remained for the validity of the instrument for data collection.

As aforementioned, the corpus of 36 sentences is the main instrument for data collection. In addition to this, there are also three PowerPoint presentations, each focusing on teaching the stress, pitch and juncture of *If-clauses* in English. The drills utilized in these presentations were prepared with the help of the sentences acquired from Longman Dictionary of Contemporary English (2012) and Longman Dictionary of American English (2008) as well as course books. As is obvious, these sentences were produced by native speakers of English.

### 3.5. Treatment

The treatment of this study is comprised of the teaching of three elements of intonation which are primary stress, pitch phonemes, and juncture phonemes. In the teaching of each element in six separate class hours, the participants were first introduced to intonation to diagnose their level of familiarity with the subject. After a brief introduction, they were first taught how to recognize the place of primary stress and place the primary stress accurately in *If-clauses*. They were then taught to recognize and produce the accurate pitch phonemes in *If-clauses.* They were finally taught to determine and produce correct juncture phonemes in *If-clauses*. All three sessions included a wide range of exercises through which the participants had the opportunity to participate in the drills actively. The participants were subject to drills and practice until they felt themselves confident enough both to recognize and produce the accurate intonation patterns of *If-clauses.* In all

these three sessions, PowerPoint presentations prepared in accordance with the Audio Articulation Method (Demirezen, 2003,2004) and Grammar Intonation Model (Cauldwell & Hewings, 1996) were used and they all included various recognition and production drills. The participants were also provided with some basic rules regarding the production of intonation patterns in *If-clauses* as well as further on the board. Those PowerPoint presentations were also shared with the participants for further practice at home.

### 3.6. Procedure for Data Collection

Data for this study were collected through oral and written pre-tests and post-tests. The pre-tests and post-tests consist of the same set of sentences which were chosen based on some criteria as mentioned earlier. Prior to the treatment, the participants were asked to articulate the sentences in a sound-proof and stress-free environment and record their voices during this articulation process. The main reason for asking them to perform this action in a sound-proof and stress-free environment is to eliminate any physical factors that might hinder their production of the sentences and make them feel as much comfortable as possible. The participants were then asked to send their recordings to the researcher through email before the treatment sessions were conducted. The participants were also given a written pre-test consisting of three sections each of which aimed to evaluate different elements of intonation, namely primary stress, pitch phonemes and juncture phonemes. For this written pre-test, the participants listened to the sentences three times at five-minute intervals and then were asked to choose the correction option in the test.

Two weeks after the treatment sessions, the participants were given written and oral post-tests which consist of the same set of questions. They were again subject to the same procedure for data collection. In other words, they were asked to produce the sentences and record their voices and then send their recordings to the researcher. They were then given the written post-test which included the same set of questions as the written pre-test. Upon the completion of this procedure, all data required were gathered and became available for analysis using appropriate statistical techniques to find answers to the research questions.

### 3.7. Data Analysis

The procedure for data analysis can be explained as follows. First, the written pre-test and post-tests were evaluated alongside of the oral pre-test and post-test. Since the written part consists of 36 multiple choice questions, inter-item reliability of the test was measured through SPSS. Since the test was found to be reliable (>0.70), necessary statistical formulas could be computed through SPSS to find out whether the intervention had any significant effect on the participants' success in producing the accurate intonation patterns during the articulation of *If-clauses*. To reveal the effect of the intervention, it was considered that Paired Samples T-test would be applicable to the nature of the research question of this study. Paired Samples T-test is a statistical data analysis in SPSS which measures the effect of the intervention before and after; here in this study, pre-test and post-test.

Second, the evaluation of the oral pre-test and post-test was carried out by three different raters. As aforementioned, the oral pre-test and post-test consist of the same sentences yet measure a different aspect of language. The pre-test and post-test were divided into three sections. The first one deals with the correct use of sentence stress, the second one deals with the production of accurate pitch patterns and the last one is concerned with using the correct type of juncture in producing *If-clauses*. In this study, with regard to the use of primary stress, it was considered that the use of stress on any content words in the *If-clause* by the participants would be considered correct since any content word in any sentence would get a primary stress by native speakers. The evaluation of the participants' recordings in the pre-test and post-test was conducted by three different raters and the data was kept for later use. Since this was a human evaluation, it was necessary to conduct inter-rater reliability test to maintain the reliability of this human evaluation. For that reason, intra-class correlation coefficient, which varies from 0 to 1, was calculated through SPSS. In such computation techniques as intra-class correlation coefficient, the variation among raters are considered to be little if the score is closer to 1. In our computation, the evaluation carried out by three different raters for pre-test and post-test was computed in statistical terms through SPSS. This measurement was conducted separately for each rater. The results of this computation yielded the results of three different ratings. The correct answers were again labelled as 1 and incorrect answers were labelled as 0 in

order to carry out the analysis through SPSS. Therefore, the zeros and ones marked by the three raters were put to analysis to reveal the correlation in both pre-test and post-test.

According to the results of the analysis, the inter-rater reliability scores for the pre-test is as follows: 0.94 for the first section, 0.93 for the second, and 0.91 for the third section. This suggests that there is little variance among the raters in terms of evaluation. The same procedure was followed for the post-test as well. The inter-rater reliability score for the post-test is as follows: 0.92 for the first section, 0.84 for the second, and 0.90 for the third. The inter-rater reliability scores for both pre-test and post-test were found to be more than 0.80, which suggests a higher consistency among raters. Consequently, it can be stated that there is almost no inconsistency among the raters since their scoring was found to be similar.

Once the reliability issues were handled, the raw data were now ready to be computed through appropriate statistical techniques. Descriptive and inferential statistics were executed to find answers to the research questions. Overall, it is believed that the answers to the research questions of this study will be reached and the aims of this study will be achieved with the help of a thorough research methodology. It is also hoped that this study will be a paradigm of suprasegmental-related studies and eventually the value that intonation deserves will be attached.

### 3.8. Conclusion

In this chapter, several issues have been considered. Firstly, a comprehensive description of the research design was provided. Secondly, relevant information was given concerning the setting and the participants of this study. Next, what instruments were used to collect data for this study was described and discussed in detail. Then, the procedure of data collection was explained step by step. Finally, how the data were analyzed was explained including the issues regarding reliability and validity. It was intended in this study to indicate that the data was gathered and evaluated in line with the research design. The subsequent chapter will deal with an in-depth analysis of the findings and provide a proper discussion with specific reference to each research question.

# 4. FINDINGS

## 4.1. Introduction

This chapter will provide the results of the research questions formulated for this study. As mentioned in the previous chapters, this study focuses on three aspects of intonation; namely, primary stress, pitch patterns and juncture phonemes in *If-clauses*. Therefore, the results will be presented in that respect. The results were gathered through descriptive and inferential statistics and will be illustrated in tables. The percentages of success and failure of the participants in producing the correct intonation patterns in *If-clauses* will be presented and thus a comparison between the pre-test and post-test results will be made. It must also be noted that the results of the pre-test and post-test will be given under two headings; namely, recognition and production. The participants of this study were given a written pre-test and post-test to evaluate their recognition of stress, pitch and juncture and an oral pre-test and post-test in order to find out whether they could produce the primary stress, pitch patterns and juncture phonemes in *If-clauses* accurately. Therefore, the written pre-test and post-test refer to the recognition of intonation of *If-clauses* and the oral pre-test and post-test refer to the production of intonation patterns of *If-clauses*.

## 4.2. Findings for Research Question 1

*Research Question 1: Is there a statistically significant difference between the pre-test and post-test scores of the participants in recognizing and placing the nuclear stress on one of the content words in If-clauses in English?*

The first research question is related to the placement of primary stress on one of the content words in *If-clauses*; therefore, it refers to the first section in the pre-test and post-test which includes 12 questions on recognizing the primary stress in *If-clauses*. As aforementioned, the participants were given two pre-tests, each of which aims to evaluate different aspects of language use. The written pre-test and post-test measure the recognition of intonation of *If-clauses* whereas the oral pre-test and post-test measure this on production level. Regarding the first research question, the participants listened to 12 *If-conditional* sentences; four on *Type 1*,

four on *Type 2* and four on *Type 3* conditionals. Therefore, it may be necessary to illustrate the results of each type separately. The participants were also asked to record their voices while reading aloud the 12 sentences on producing the correct primary stress. The results of this will also be displayed separately. It must be specified here that all the sentences in the corpus were articulated by native speakers of English as they were collected from dictionaries and course books. The results of the written and oral pre-tests and post-tests will be provided under three groups, each representing *Type 1*, *Type 2*, and *Type 3* conditionals. The percentages of correct and incorrect answers by the participants will be provided in tables. In both pre-tests, the first four questions are *Type 1* conditional sentences, the second four questions are *Type 2* conditional sentences and the last four questions are *Type 3* conditional sentences. *If* is at the beginning in the first two sentences of each group whereas it is in the middle in the latter two.

In the written pre-test, the correct recognition of primary stress by the participants in *Type 1* conditionals is 81,95% whereas the incorrect placement of primary stress is 18,05. In *Type 2* conditionals, the recognition of primary stress by the participants is 68,45% whereas the failure in recognizing the primary stress is 31,55%. For *Type 3* conditionals, the participants' percentage of correctness is 59,03%. It must be reminded here that the participants have studied primary stress before; at least they know it better than the other two elements of intonation: pitch and juncture. It can be stated that, by looking at the results of the recognition of primary stress in *If-clauses*, the participants can recognize the place of primary stress in all three types of *If-clauses* before they have taken any treatment sessions on the phenomenon.

**Table 4.1: The Percentages of Correctness and Incorrectness in Primary Stress in the Pre-test**

| | **RECOGNITION** | | **PRODUCTION** | |
|---|---|---|---|---|
| | **Correct** | **Incorrect** | **Correct** | **Incorrect** |
| **Type 1** | 81.95% | 18.05% | 58.6% | 41.4% |
| **Type 2** | 68.45% | 31.55% | 55.65% | 44.35% |
| **Type 3** | 59.03% | 40.97% | 40.59% | 59.41% |
| **Total** | 69.81% | 30.19% | 51.61% | 48.39% |

In the oral pre-test, which was carried out to evaluate the production of primary stress in *If-clauses*, the case is a bit different. The participants performed more badly in producing the primary stress than in recognizing it in *Type 1* conditionals. Their percentage of correctness in *Type 1* is 58.6%. For *Type 2* conditionals, the percentage of correct answers is 55.65% and it is 40.59% for *Type 3* conditionals. The results do not seem surprising since the course they'd taken before had just focused on the intonation insufficiently as expressed by the instructor of the course. In addition, none of the participants have taken any special course on the intonation of *If-clauses* nor only intonation either. Bearing this fact in mind, it can be stated that the participants can recognize the place of primary stress in *If-conditionals*, but almost half of them cannot produce or place the primary stress on one of the content words in *If-clauses*. Therefore, the need for treatment sessions arises here. With the need for treatment sessions having arisen and proven by the data above, the participants received classes on the intonation of *If-clauses* and they were post-tested two weeks after this intervention. In the written part of the post-test, the participants performed well and the results are illustrated in Table 4.2 below.

**Table 4.2: The Percentages of Correctness and Incorrectness in Primary Stress in the Post-test**

| | RECOGNITION | | PRODUCTION | |
|---|---|---|---|---|
| | **Correct** | **Incorrect** | **Correct** | **Incorrect** |
| **Type 1** | 88.13% | 11.87% | 62.85% | 37.15% |
| **Type 2** | 86.9% | 12.7% | 63.8% | 36.2% |
| **Type 3** | 77.48% | 22.52% | 43.32% | 56.68% |
| **Total** | 84.17% | 15.83% | 56.65% | 43.35% |

According to Table 4.2, it is apparent that there has been a major development in the participants' recognition of primary stress in *If-clauses*. Therefore, it can be suggested that the training sessions given to the participants to remediate their mistakes in recognizing the place of primary stress in *If-clauses* seem to have worked well as the overall correct recognition of primary stress in *If-clauses* by the participants is 84.17%. It is also indicated that the difference in the correct and incorrect production of primary stress in *If-clauses* is very close to each other. However, it must also be noted that this is a huge development on part of the

participants as their percentage of correctness in terms of primary stress prior to the intervention was 51.61%. Prior to the pre-test, the participants' ability to recognize the place of primary stress was above average; however, it was proven that their ability was enhanced after they have been subject to the intervention. To reveal whether there has been any statistically significant difference between the pre-test and post-test scores of the participants in placing the primary stress on one of the content words, paired samples T-test was conducted. The results of this test are illustrated in the following table.

**Table 4.3: Paired Samples T-test Descriptive Statistics for Primary Stress**

| Paired Samples Statistics | | | | | |
|---|---|---|---|---|---|
| | | **Mean** | **N** | **Std. Deviation** | **Std. Error Mean** |
| **Pair 1** | **PRE-REC** | 8.3770 | 61 | 2.84701 | .36452 |
| | **POST-REC** | 10.0328 | 61 | 2.35915 | .30206 |
| **Pair 2** | **PRE-PRO** | 6.0442 | 61 | 2.58474 | .33094 |
| | **POST-PRO** | 6.8689 | 61 | 2.87794 | .36848 |

When Table 4.3 is examined, it can be seen that there has been a great improvement in the participants' scores in recognition and a minor improvement in the production of the primary stress in *If-clauses*. This further suggests that the treatment sessions taken by the participants were found to be effective in helping them learn to place the primary stress accurately in *If-clauses*. Therefore, it can be stated that one of the aims of this study, which is to help the participants produce primary stress on one of the content words in *If-conditional* sentences, was achieved.

**Table 4.4: Paired Samples T-test Results for Primary Stress**

| Paired Samples Test | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
| | | Mean | Std. Dev. | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| **Pair 1** | **PRE-REC POST-REC** | -1.03 | 1.991 | .2549 | -1.542 | -.5227 | -4.05 | 60 | .000 |
| **Pair 2** | **PRE-PRO POST-PRO** | -.819 | 2.085 | .2670 | -1.353 | -.2854 | -3.06 | 60 | .003 |

Table 4.4 suggests that there is a statistically significant difference between the written pre-test and post-test results of the participants as the p value is less than .05. In other words, the treatment sessions helped the participants recognize the place of primary stress in *If-clauses*. Thus, it can be suggested that treatment sessions were found to be effective in terms of participant success in recognizing the place of primary stress in *If-clauses*. The table also presents data on the participants' placement of primary stress in *If-clauses*. Therefore, our findings are reinforced. It is also indicated that there has been a major improvement in the mean scores of the participants after they have taken treatment sessions on the intonation patterns of *If-clauses*. In other words, the rate of correctness in terms of placing the primary stress in *If-clauses* increased since the introduction of intervention.

### 4.3. Findings for Research Question 2

*Research Question 2: Is there a statistically significant difference between the pre-test and post-test scores of the participants in recognizing and producing the appropriate pitch patterns whilst reading aloud the If-conditional sentences?*

Regarding the second research questions, an in-depth analysis will be done to provide a detailed presentation of the results. The results of the written pre-tests and post-tests will be illustrated in tables and appropriate statistical analyses will be conducted to find if there is any statistically significant different between the pre-test and post-test scores of the participants in producing the accurate pitch

patterns. As aforementioned, the participants were given a written pre-test to evaluate their recognition of the accurate pitch patterns and they were asked to record their voices while reading aloud the *If-conditional* sentences as it aimed to find out whether they use the correct pitch patterns. For this reason, the results will be illustrated in that order. The results for the recognition and production of the correct pitch patterns by the participants are as follows:

**Table 4.5: The Percentages of Correctness and Incorrectness in Pitch Patterns in the Pre-test**

| | RECOGNITION | | PRODUCTION | |
|---|---|---|---|---|
| | **Correct** | **Incorrect** | **Correct** | **Incorrect** |
| **Type 1** | 46.7% | 53.3% | 61.62% | 38.38% |
| **Type 2** | 43.85% | 56.15% | 46.85% | 53.15% |
| **Type 3** | 38.5% | 61.5% | 38.93% | 61.07% |
| **Total** | 43.01% | 79.89% | 49.13% | 50.87% |

It is clearly indicated in Table 4.5 that the participants could not recognize the accurate pitch patterns in all three *If-clause* types before the intervention. When looking at the percentages, most participants (more than 70%) failed in their attempt to recognize and more than 50% of them failed to produce the correct pitch patterns in *If-clauses*. Whether they could use the accurate pitch patterns in *If-clauses* before the intervention could be found out in the following table. The results in the table concur that the majority of the participants failed to recognize and produce the accurate pitch patterns before the intervention. Both results suggest that the participants needed rehabilitation of their mistakes in correct pitch patterns in *If-clauses*. Upon the introduction of treatment sessions, the results of both recognizing and producing the correct pitch patterns in *If-clauses* are illustrated consecutively.

**Table 4.6: The Percentages of Correctness and Incorrectness in Pitch Patterns in the Post-test**

| | RECOGNITION | | PRODUCTION | |
|---|---|---|---|---|
| | **Correct** | **Incorrect** | **Correct** | **Incorrect** |
| **Type 1** | 85.25% | 14.75% | 55.61% | 44.39% |
| **Type 2** | 85.63% | 14.37% | 60.8% | 39.20% |
| **Type 3** | 68.03% | 31.97% | 50.27% | 49.73% |
| **Total** | 79.63% | 20.37% | 55.56% | 44.44% |

When Table 4.6 is examined, it can be noticed that there has been a major shift between the pre-test and post-test scores of the participants in both recognizing and producing the accurate pitch patterns of *If-clauses* while listening to and reading aloud the sentences in the corpus. When the pre-test and post-test results are compared, the percentage of correctness in terms of recognizing and producing the accurate pitch patterns in *If-clauses* increased after the treatment sessions. This substantial increase is due to the fact that the participants had no idea of what those numbers (2/3/1), namely pitch contours, mean. After they were subject to the treatment sessions, they learnt what those numbers mean and they learnt how and when to produce them. For that reason, the results are not surprising. In the subsequent tables, both descriptive and inferential statistics concerning the second research question will be illustrated.

**Table 4.7: Paired Samples T-test Descriptive Statistics for Pitch Patterns**

| Paired Samples Statistics | | | | | |
|---|---|---|---|---|---|
| | | **Mean** | **N** | **Std. Deviation** | **Std. Error Mean** |
| **Pair 1** | **PRE-REC** | 5.3115 | 61 | 3.65851 | .46842 |
| | **POST-REC** | 9.4098 | 61 | 2.64813 | .33906 |
| **Pair 2** | **PRE-PRO** | 5.8962 | 61 | 2.63491 | .33737 |
| | **POST-PRO** | 6.7213 | 61 | 2.31275 | .29612 |

It is clear in Table 4.7 that the mean scores of the participants' correct answers increased dramatically. Table 4.7 also suggests that the difference between the pre-test and post-test scores of the participants in recognizing the accurate pitch patterns is statistically significant. In other words, the participants provided more correct answers on the questions on pitch patterns in the post-test than in the pre-test upon receiving treatment sessions. Since this shift has occurred in just less than two months, pre-service Turkish teachers of English could be subject to more systematic and thorough sessions of remediation if they are expected to perform

well in terms of producing the accurate intonation patterns of English in specific and the intonation of English in general.

**Table 4.8: Paired Samples T-test Results for Pitch Patterns**

| Paired Samples Test | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
| | | Mean | Std. Dev. | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| **Pair 1** | **PRE-REC POST-REC** | -4.09 | 3.3995 | .4352 | -4.9690 | -5.2766 | -9.41 | 60 | .000 |
| **Pair 2** | **PRE-PRO POST-PRO** | -.825 | 3.7881 | .4850 | -1.7953 | -2.7723 | -1.70 | 60 | .094 |

Table 4.8 presents data about the recognition and production of accurate pitch patterns in *If-clauses*. By looking at this data, it is apparent that there has been a significant difference in the pre-test and post-test scores of the participants in their use and recognition of correct pitch patterns in *If-clauses* as the p value is less than .05. For this reason, it can be stated that the treatment sessions were proved to be effective since the rate of correctness on part of the participants in their use of accurate pitch patterns in *If-clauses* increased dramatically after their introduction to those sessions. However, the difference between the pre-test and post-test scores of the participants in terms of production of accurate pitch patterns in *If-clauses* is not statistically significant as the p value is larger than .05 (p>.094). The absence of having a statistically significant difference between the pre-test and post-test in terms of production of accurate pitch patterns may stem from the fact that the duration of the treatment may not be long enough for the participants to practice more or that the participants may have not paid enough attention to their task while recording their voice which might result from several reasons as observed by the present researcher. However, it must be stressed by looking at the data in the table that the treatment sessions should be maintained and reorganized considering the needs of the participants.

### 4.4. Findings for Research Questions 3 and 4

*Research Question 3: Do the participants pause when an independent clause is preceded by a dependent clause in If-conditionals?*

*Research Question 4: Which intonation pattern do the participants use when a main clause comes before a dependent clause in If-conditionals?*

Research questions 3 and 4 were formulated to find out the use of juncture in *If-clauses* by the participants. In that respect, the type of intonation pattern used by pre-service Turkish teachers of English and whether prospective Turkish teachers of English pause when a dependent clause precedes a main clause in *If-conditional* sentences will be explained and discussed. A bottom-up approach will be adopted to provide answers to the research questions 3 and 4. First, the results concerning the recognition of juncture phonemes of *If-clauses* in the pre-test will be illustrated in tables and then the results of using the accurate juncture phonemes of *If-clauses* in the pre-test will be demonstrated. Second, the results of the post-test will be provided. Then, the results of paired samples T-test will be displayed and the discussion on the relevant research questions will be held.

**Table 4.9: The Percentages of Correctness and Incorrectness in Juncture Phonemes in the Pre-test**

| | RECOGNITION | | PRODUCTION | |
|---|---|---|---|---|
| | **Correct** | **Incorrect** | **Correct** | **Incorrect** |
| **Type 1** | 47.13% | 52.87% | 59.44 % | 40.56% |
| **Type 2** | 46.73% | 53.27% | 62.44% | 37.56% |
| **Type 3** | 40.58% | 59.42% | 42.34% | 57.66% |
| **Total** | 44.81% | 55.19% | 54.74% | 45.26% |

When Table 4.9 is examined, it is clearly seen that the participants were not able to recognize none of the type of conditional sentences completely. 44.81% of the participants could recognize the juncture phonemes of *If-clauses* accurately whereas the rest of them failed in recognizing them. From this data, it can be inferred that most participants do not have any knowledge on what juncture phoneme is or any awareness on this subject. The results also show that many participants could not recognize the accurate juncture phonemes of *If-clauses*; however, more than 50% of them could produce the juncture phonemes accurately in *If-clauses*. This might result from the fact that prospective Turkish teachers of

English might have transferred their native language (L1) knowledge in their target language (L2). That is, speakers of Turkish do stop before a comma, and thus the participants of this study might have probably been good at producing the juncture because of this similar rule in their native language. The reason for their failure in identifying the accurate juncture phonemes might be stemming from the fact that the participants were not familiar with the arrows which indicate the type of juncture. Nevertheless, this case could be beneficial to the current researcher in that it would be highly possible to reveal whether the treatment was effective since many of the participants do not seem to have the knowledge of juncture phonemes. In the following tables, the post-test results regarding the recognition and production of juncture phonemes of *If-clauses* will be displayed. Therefore, it would be easier to interpret the results.

When further analysis is carried out, it can be found that almost 55.73% of the participants failed to make a pause in item number 35 (as numbered in pre-test and post-test). More than 60% of the participants did pause in item 36 although they were not supposed to.

**Item 35** “I would have been terrified if I’d been in that situation.”

**Item 36:** “The dog wouldn’t have attacked if you hadn’t teased him.”

It was expected of the participants to make a pause in item 35 although there is no comma before the *If-clause*, yet the majority of them failed to do that. Similarly, in item 36, the participants were not expected to make a pause as there is no comma in the sentence, yet more than 60% of the participants made a pause as if there was a comma in the sentence. These results are not surprising as there are three items in the third section of the pre-test and post-test that the participants should not make a pause in.

**Table 4.10: The Percentages of Correctness and Incorrectness in Juncture Phonemes in the Post-test**

| | RECOGNITION | | PRODUCTION | |
|---|---|---|---|---|
| | **Correct** | **Incorrect** | **Correct** | **Incorrect** |
| **Type 1** | 55.33% | 44.67% | 81.7% | 18.3% |
| **Type 2** | 64.75% | 35.25% | 76.09% | 23.91% |
| **Type 3** | 51.63% | 48.37% | 63.13% | 36.87% |
| **Total** | 57.23% | 42.77% | 73.64% | 26.36% |

According to the data in Table 4.10, there has been a remarkable decrease in the rate of incorrect answers of the participants with the introduction of intervention. In the pre-test, 55.19% of the participants could not recognize the juncture phoneme in *If-clauses* while 57.23% could recognize them in the post-test. The results here further suggest that pre-service Turkish teachers of English need further treatment sessions, even a systematic shift could be made such as the re-arrangement of the curriculum in ELT departments in Turkey. In contrast to the results under recognition column, the results under production column indicate that 73.64% of the participants could produce the juncture phoneme in *If-clauses*. In other words, the majority of the participants made a pause when they saw a comma whereas the rest of them do not stop before the comma. The reason for the difference between the results in recognition and production could be because there are arrows which show the pause or ending in sentences in the written pre-test and post-test whereas the participants did not see any signs or arrows in the oral pre-test and post-test as they articulated the sentences and recorded their voice while reading aloud the sentences in the corpus. The reason for their success in the oral post-test could be because of their association with the native language since speakers of Turkish make a pause when there is a comma. Therefore, when the dependent clause precedes the main clause, the majority of the prospective Turkish teachers of English made a pause when they saw a punctuation mark – here it is a comma.

When the voice recordings of the participants were analyzed, it was found out that the items numbered 27, 31, and 36 (as numbered in pre-test and post-test) were tricky since the participants were not expected to make a pause before *If* in these sentences. However, in the other three sentences (28, 32, 35) where *If* is in the middle, they were expected to make a pause.

**Table 4.11: Paired Samples T-test Descriptive Statistics for Juncture Phonemes**

| Paired Samples Statistics | | | | | |
|---|---|---|---|---|---|
| | | Mean | N | Std. Deviation | Std. Error Mean |
| Pair 1 | PRE-REC | 5.3607 | 61 | 4.09485 | .52429 |
| | POST-REC | 6.8689 | 61 | 3.15951 | .40453 |
| Pair 2 | PRE-PRO | 6.5683 | 61 | 2.73343 | .34998 |
| | POST-PRO | 8.8361 | 61 | 1.90771 | .24426 |

As is obvious in Table 4.11, there has been a major improvement in the participants' correctness in relation to the recognition and production of juncture phonemes in *If-clauses*. In other words, the majority of the participants did make a pause before commas (sustained juncture) or stop after full stops (falling terminal juncture). It can also be inferred from the table that the participants performed better in recognition than in production of juncture phonemes while listening to and reading aloud the sentences in the pre-test and post-test.

**Table 4.12: Paired Samples T-test Results for Juncture Phonemes**

| Paired Samples Test | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
| | | Mean | Std. Dev. | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | PRE-REC POST-REC | -1.50 | 1.849 | .2368 | -1.981 | -1.034 | -6.369 | 60 | .000 |
| Pair 2 | PRE-PRO POST-PRO | -2.26 | 3.596 | .4604 | -3.188 | -1.346 | -4.925 | 60 | .000 |

It is further proved in Table 4.12 that there was a statistically significant difference between the pre-test and post-test scores of the participants in terms of recognition and production as the p value is less than .05 (,000<.05). Another interpretation that can be made from the data in Table 4.12 is that the treatment sessions on intonation were successful now that the participants performed much better in the post-test than in the pre-test. Regarding the third research question, the answer is that the participants pause when an independent clause is preceded by a dependent clause in *If-conditionals.* The participants paused before a comma and ended the sentence after a full stop. This might be because Turkish speakers

pause when they see a comma in a sentence or in their speech. In other words, it might be asserted that there is a positive transfer in terms of the native language (L1). In the literature, there are instances of negative transfer from the L1 (Grüter & Crago, 2012; Zhang, 2013; Römer et al., 2014; Shi, 2015; Bloodworth, 2016); however, it is the opposite in our case.

Concerning the fourth research question, when the results were analyzed item by item, it is apparent that many of the participants produced the same intonation pattern when the dependent clause is preceded by the main clause as they did when the main clause precedes the dependent clause. In other words, they produced /2 3 2/ - /2 3 1/ sustained and falling terminal juncture consecutively. They produced sustained juncture before the comma and falling terminal juncture after the full stop. However, there were three instances where the participants had to produce /2 3 1/ pitch pattern with a falling sustained juncture, yet the majority of them failed to see this difference. There were 3 sentences in the third section of the pre-test and post-test where the participants had to produce /2 3 1/ pitch pattern, yet the majority could not handle this. The items which have /2 3 1/ pitch pattern with a falling terminal juncture are listed as follows:

**Item 27:** “You’ll enjoy it if you read it.”
**Item 31:** “It’d be easier if we both did it.”
**Item 36:** “The dog wouldn’t have attacked if you hadn’t teased him.”

The descriptive analysis regarding these three items is illustrated in the following table. Before that, it must be noted that the three items above can be considered as exceptions as there are very few instances of /2 3 1 / pitch pattern with a falling terminal juncture when the dependent clause is preceded by the main clause. Prior to the treatment sessions, the participants were unaware of this exception. However, they were informed of these instances and more in the treatment sessions. In the previous three examples, there is no comma in the sentences.

**Table 4.13: The Frequency of the Three Items in the Corpus in the Pre-test and Post-test**

| ITEMS | N | PRE-REC | POST-REC | PRE-PRO | POST-PRO |
|---|---|---|---|---|---|
| **Item 27** | 61 | 44.26% | 55.73% | 57.37% | 85.24% |
| **Item 31** | 61 | 37.70% | 59.01% | 63.93% | 75.40% |
| **Item 35** | 61 | 42.62% | 50.81% | 36.06% | 73.77% |

As presented in Table 4.13, the frequency of the participants went up in the post-test in terms of producing the /2 3 1/ pitch pattern with a falling terminal juncture. In other words, most of the participants performed well in that they were able to avoid utilizing /2 3 2/ - /2 3 1/ pitch pattern which is normally used when the dependent clause is at the beginning of a conditional sentence. When the pre-tests are examined in terms of recognition and production, it is visible that the number of correct answers in the production of /2 3 1 / pattern is higher than the one in the recognition. This result was not expected by the present researcher, yet it could be explained in the following way. The reason for this result could be due to several factors. One of them is that the participants might have generalized the /2 3 1/ pattern for all *If-conditional* sentences although they have a comma in the sentence. Another reason for this could be because of the chance factor. Some of the participants might have coincidentally utilized the /2 3 1/ for the conditional sentences in which *If* is in the middle. The third reason could be the fact that the treatment sessions proved to be effective.

Regarding the fourth research question, the relevant data is presented in the following table.

**Table 4.14: The Percentage of the Pitch Patterns Favored by the Participants**

| | | **/2 3 2/ - /2 3 1/ Pitch pattern** | | **/2 3 1/ Pitch pattern** | |
|---|---|---|---|---|---|
| | **N** | **Correct** | **Incorrect** | **Correct** | **Incorrect** |
| **PRE-PRO** | 61 | 54.09% | 45.91% | 52.45% | 47.55% |
| **POST – PRO** | 61 | 77.59% | 22.41% | 78.13% | 21.87% |
| **TOTAL** | 61 | 65.84% | 34.16% | 65.29% | 34.71% |

According to the data presented in Table 4.14, it can be inferred that the /2 3 2 / - /2 3 1/ pitch pattern was preferred by the majority of the participants in the pre-test while the /2 3 1/ pattern was used most in the post test with 78.13%. When the

total percentages are taken into consideration, the difference in preference for /2 3 2 / - /2 3 1/ and /2 3 1/ pitch patterns is almost the same. However, the first pitch pattern was utilized by the majority of the participants when the main clause precedes the dependent clause.

### 4.5. Findings for Research Question 5

*Research Question 5: Is there a statistically significant difference between the overall pre-test and post-test scores of the participants in the recognition and production of the accurate intonation patterns of If-clauses in English?*

The last research question covers all three aspects of intonation; namely, primary stress, pitch pattern, and juncture phoneme. To be able to find the answer to the fifth research question, paired samples T-test was conducted twice. The first pair samples T-test was conducted to reveal whether there is a statistically significant difference between the pre-test and post-test results of the participants in terms of recognition of intonation patterns of *If-clauses*. The second test was administered to find out the difference in the pre-test and post-test results of the participants in terms of production of intonation patterns of *If-clauses*. It must be stressed here that not only recognition but also production of the accurate intonation patterns of *If-clauses* bears great significance. For that reason, the research questions were formulated and the treatment sessions were executed accordingly.

**Table 4.15: Paired Samples T-test Descriptive Statistics for the Recognition of Intonation Patterns of *If-Clauses***

| Paired Samples Statistics | | | | | |
|---|---|---|---|---|---|
| | | **Mean** | **N** | **Std. Deviation** | **Std. Error Mean** |
| **Pair 1** | **PRERECPS** | 8.3770 | 61 | 2.84701 | .36452 |
| | **POSTRECPS** | 10.0328 | 61 | 2.35915 | .30206 |
| **Pair 2** | **PRERECPC** | 5.3115 | 61 | 3.65851 | .46842 |
| | **POSTRECPC** | 9.4098 | 61 | 2.64813 | .33906 |
| **Pair 3** | **PRERECJP** | 5.3607 | 61 | 4.09485 | .52429 |
| | **POSTRECJP** | 6.8689 | 61 | 3.15951 | .40453 |

As presented in Table 4.15, the participants' means scores in both the pre-test and post-test mounted in all three aspects of intonation in terms of recognition. In other

words, more than two weeks later following the treatment sessions, the majority of the participants could still recognize the accurate intonation patterns of *If-clauses*. The effectiveness and necessity of the treatment sessions can also be inferred from the table above since there has been a gradual increase in the mean scores of the participants in the post-test. To see whether the difference between the overall pre-test and post-test scores in terms of recognition is significant, the results of the paired samples T-test are illustrated in the subsequent table.

**Table 4.16: Paired Samples T-test Results for the Recognition of Intonation Patterns of *If-Clauses***

| Paired Samples Test | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
| | | Mean | Std. Dev. | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| **Pair 1** | **PRERECPS - POSTRECPS** | -1.65 | 2.136 | .27350 | -2.202 | -1.108 | -6.05 | 60 | .000 |
| **Pair 2** | **PRERECPC - POSTRECPC** | -4.09 | 3.399 | .43527 | -4.969 | -3.227 | -9.41 | 60 | .000 |
| **Pair 3** | **PRERECJP - POSTRECJP** | -1.508 | 1.849 | .23681 | -1.981 | -1.034 | -6.36 | 60 | .000 |

The results presented in Table 4.15 were complemented in Table 4.16 in that it was revealed that there was a statistically significant difference between the overall pre-test and post-test scores of the participants in terms of recognition since the p-value is less than .05 (000<.05). The results in Table 4.16 can also be interpreted in the following manner. First, the fact that there has been a substantial improvement in the participants' recognition of the intonation patterns of *If-clauses* demonstrates that the treatment sessions were beneficial to the participants. Second, the number of these treatment sessions must be increased or their content must be enriched and redeveloped for long-term goals.

**Table 4.17: Paired Samples T-test Descriptive Statistics for the Production of Intonation Patterns of *If-Clauses***

| Paired Samples Statistics | | | | | |
|---|---|---|---|---|---|
| | | **Mean** | **N** | **Std. Deviation** | **Std. Error Mean** |
| **Pair 1** | **PREPROPS** | 6.0442 | 61 | 2.58474 | .33094 |
| | **POSTPROPS** | 6.8689 | 61 | 2.87794 | .36848 |
| **Pair 2** | **PREPROPC** | 5.8962 | 61 | 2.63491 | .33737 |
| | **POSTPROPC** | 6.7213 | 61 | 2.31275 | .29612 |
| **Pair 3** | **PREPROJP** | 6.5683 | 61 | 2.73343 | .34998 |
| | **POSTPROJP** | 8.8361 | 61 | 1.90771 | .24426 |

As for the data introduced in Table 4.17, it is reasonable to claim that there has been a considerable increase in the mean scores of the participants in terms of utilizing the accurate intonation patterns of *If-clauses*. The findings suggest that most participants, following the introduction of treatment sessions, was able to utilize the intonation patterns of *If-clauses* accurately. When the table is scrutinized, it is obvious that the mean scores of the participants in placing the primary stress slightly increased; however, it will be clearly seen in the following table whether or not the difference is statistically significant.

**Table 4.18: Paired Samples T-test Results for the Production of Intonation Patterns of *If-Clauses***

| Paired Samples Test | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Paired Differences** | | | | | | | |
| | | **Mean** | **Std. Dev.** | **Std. Error Mean** | **95% Confidence Interval of the Difference** | | **t** | **df** | **Sig. (2-tailed)** |
| | | | | | **Lower** | **Upper** | | | |
| **Pair 1** | **PREPROPS - POSTPROPS** | -.819 | 2.08 | .2670 | -1.353 | -.2854 | -4.05 | 60 | .000 |
| **Pair 2** | **PREPROPC - POSTPROPC** | -.825 | 3.78 | .4850 | -1.795 | -2.772 | -1.70 | 60 | .094 |
| **Pair 3** | **PREPROJP- POSTPROJP** | -2.26 | 3.59 | .4604 | -3.188 | -1.346 | -4.92 | 60 | .000 |

The results in Table 4.18 demonstrate that the difference in the overall pre-test and post-test scores of the participants in utilizing the intonation patterns of *If-clauses* is statistically significant except for that of pitch contours. In other words, the

majority of the participants performed better in placing the primary stress correctly, and producing the correct juncture phonemes of *If-clauses* in the post-test than in the pre-test, yet the difference in the pre-test and post-test scores of the participants in terms of utilizing the accurate pitch patterns was not found to be statistically significant. Pair 1 represents the pre-test and post-test scores of the participants in placing the primary stress in *If-clauses*. From this data, it can be understood that the participants could produce the primary stress accurately in *If-clauses* since the difference between the pre-test and post-test is statistically significant. The same interpretation could be made for Pair 3, which represents juncture phonemes, in that the difference is statistically significant in the utilization of juncture phonemes. However, as aforementioned, Pair 2, which represents the pitch patterns, indicate that there is no statistically significant difference in the participants' pre-test and post-test scores regarding pitch patterns.

### 4.6. Conclusion

The current chapter provides the results and findings of the research questions displayed in tables and accompanied by discussion on each research question subsequently. The participants' competence in placing the primary stress, producing the accurate pitch patterns, and utilizing correct juncture phonemes of *If-clauses* were illustrated and discussed by giving the percentages of correctness and incorrectness in both the pre-test and post-test. The data collected were presented using various tables to explain and reveal the possible outcomes of the findings acquired through the research questions. The participants' state in both recognizing and producing the intonation patterns of *If-clauses* was deliberated using the data gathered through descriptive and inferential statistics. Furthermore, an extensive and in-depth evaluation of the findings was made based on the results reached through several tests as well as the remarks of the present researcher. It was further aimed to contribute to the field of ELT and EFL as well as teacher education through the findings discovered and the discussions held following each research question. The following chapter will bring this thesis study to an end by provision of an elaborate discussion and fruitful insights into grasping the significance of intonation instruction and pedagogical implications of the findings obtained through statistical analyses.

# 5. DISCUSSION

## 5.1. Introduction

The present chapter will provide extensive discussion points for each research question. The results of the study will be deliberated with specific reference to the literature on the phenomenon and contributions to the field. At the end of discussion for each research question, a table will be provided as a summary of the findings and related discussion will be held following the provision of the table.

## 5.2. Discussion for Research Question 1

It was previously discussed in this study that intonation bears great importance in communication as its absence may hinder communication (Gilbert, 1993; Dalton & Seidlhoffer, 1994; Lightbown & Spada, 2006; Celce-Murcia et al., 2010). Regarding the first research question, which aimed to place the primary stress on one of the content words in *If-clauses*, it can be stated that placement of primary stress is very significant for non-native speakers of English as primary stress on different content words may change the meaning in communication. Using primary stress inaccurately may also lead to misunderstanding and misinterpretation between native and non-native speakers of English (Kelly, 2001; Brown, 2014; Demirezen, 2012). In addition to its negative effect on communication, lack of primary stress in oral communication sounds unnatural to native speakers of English. In other words, when non-native speakers speak without placing the primary stress on one of the content words, they sound foreign to native speakers of English. In Turkish EFL setting, the production of primary stress in communication is quite problematic as Turkish is a syllable-timed language while English is stress-timed. Therefore, this makes it twice as much hard for prospective Turkish teachers of English since their mother tongue is Turkish and teaching English will be their profession. One of the issues to be considered here is that pre-service Turkish teachers of English must be well-equipped and knowledgeable in their field now that it is a well-known fact that non-native speakers and teachers of English are disfavored by many students and native speakers (Munro & Derwing, 1995; Sifakis & Sougari, 2005; Moyer, 2013; Murphy, 2014; Hornsby, 2015; Levis et al., 2016). Bearing this in mind and considering the fact that the treatment sessions were effective in terms

of enhancing the participants' competence in placing the primary stress accurately, it is plausible to assert that the number of treatment sessions must be increased and the content of these sessions should be determined thoroughly and systematically and thus be appropriate for the participants' needs.

In this study, with the help of the first research question, it was demonstrated that pre-service Turkish teachers of English have had some problems with the production of primary stress on one of the content words in *If-clauses*, yet these problems could be rehabilitated with the help of treatment sessions through which they are subject to various kinds of exercises about the intonation of *If-clauses* they can practice. It must also be born in mind that these treatment sessions did not aim to eradicate these problems about the intonation of *If-clauses*, yet they aimed at rehabilitating them. It must also be stated that it is a very hard and demanding task to do as several factors interfere. However, improvement is guaranteed at the end of these treatment sessions if they are arranged systematically and properly.

**Table 5.1: Summary of Pre-test and Post-test Results for Primary Stress**

| | N | Pre-test Mean | SD | Post-test Mean | SD | p value | Pre-test Percentage | Post-test Percentage |
|---|---|---|---|---|---|---|---|---|
| **REC** | 61 | 8.37/12 | 2.84 | 10.03/12 | 2.35 | 0.000 | 69.75% | 83.58% |
| **PRO** | 61 | 6.04/12 | 2.58 | 6.86/12 | 2.87 | 0.003 | 50.33% | 57.16% |

Table 5.1 summarizes the data on the participants' success in placing the primary stress on one of the content words in *If-clauses* accurately. As can be seen from the table, there has been a minor increase in the participants' recognition of primary stress on average. However, this is, in fact, a major increase in that the participants have already had some knowledge on primary stress and it would be hard to build up on that. On the other hand, in terms of production or placement of primary stress on one of the content words, it can be stated that the participants did a good job as well. Prior to the intervention, they could place the primary stress on the content words in approximately six out twelve sentences. After they were subject to the treatment classes, they could place the primary stress accurately in nearly seven sentences out of twelve.

From the data presented and the discussion held so far, it can be stated and suggested that prospective Turkish teachers of English needed rehabilitation of their mistakes in placing the primary stress in *If-clauses* and performed well in the post-test upon the introduction of the intervention. Therefore, it is considered that they could make substantial progress in placing the primary stress on one of the content words in *If-clauses.* Since this is only an experimental study and it has yielded some practical and beneficial results for the future of teacher education, it is suggested that more comprehensive and thorough arrangements must be made about the teaching of primary stress to pre-service Turkish teachers of English. Its pedagogical implications will be discussed in the relevant section comprehendsively.

### 5.3. Discussion for Research Question 2

The second research question was formulated to find out whether there is a statistically significant difference between the pre-test and post-test scores of the participants in producing the accurate pitch patterns of *If-clauses*. Pitch contours are very significant in that they mark the beginning or ending of sentences. They also mark whether the sentence is a *yes-no question* or *Wh*-question. Native speakers of English may misunderstand or misinterpret what non-native speakers mean. Therefore, it is urgent that accurate pitch contours be produced in EFL contexts in order not to lead to a communication barrier. As Hahn (2004) stated, native speakers mainly rely on the combination of final intonation and focus in utterances to make sense of larger discourse. Native speakers of English may find it difficult to follow the message in cases of misplacement of focus in a sentence or absence of intonation or signaling contrasts.

It is therefore suggested that not only the awareness of general intonation contours but the production of these pitch contours in speech is significant as well to discern the implied meaning in conversations. This case is twice as much important for prospective Turkish EFL teachers in terms of professional development and work ethics since it would be quite embarrassing if non-native teachers of English are not qualified enough to train their students phonetically and phonologically. As prospective Turkish teachers of English, teacher candidates

must be trained well to be a good representative or model of the language that they teach. About the use of accurate pitch contours in their speech, they must be exposed to in-depth practice since inaccurate production of pitch may lead to miscommunication.

**Table 5.2: Summary of Pre-test and Post-test Results for Pitch Patterns**

| | N | Pre-test Mean | SD | Post-test Mean | SD | p value | Pre-test Percentage | Post-test Percentage |
|---|---|---|---|---|---|---|---|---|
| **REC** | 61 | 5.31/12 | 3.65 | 9.40/12 | 2.64 | 0.000 | 44.25% | 78.33% |
| **PRO** | 61 | 5.89/12 | 2.63 | 6.18/12 | 2.31 | 0.094 | 49.08% | 51.50% |

It is summarized in Table 5.2 that there has been a significant development in the participants' mean scores of correct answers in terms of recognition of accurate pitch patterns in If-clauses. However, the same statement cannot be made about the production of accurate pitch patterns. As mentioned earlier, the reason for this statistical insignificance in terms of production of accurate pitch patterns in If-clauses may be either lack of attention on part of the participants or insufficient duration of treatment classes. Still it can be suggested here that not only the recognition of pitch patterns but also the production of accurate pitch patterns bears great importance in speech. The table above also summarizes that the intervention was effective in helping the participants learn and use the pitch patterns of If-clauses correctly. Since the participants of this study are prospective Turkish teachers of English, it is twice as much crucial for them both to acquire the accurate pitch contours in English and teach them to their students.

Taking into consideration the varied pitch patterns in English, it is suggested that prospective teachers of English must be provided with remedial pronunciation and intonation training. As Brown (2014) asserted, the use of steady pitch with jumps from one syllable to the other may be influenced by one's first language. For this reason, pre-service Turkish teachers of English must develop metacognitive and meta-phonological awareness to be aware of the difference between their mother tongue and the target language as well as recognize the subtle differences in the sounds of the target language. In addition, in terms of professional development and work ethics, prospective Turkish teachers of English must be subject to

treatment sessions on pronunciation and intonation to rehabilitate their segmental and suprasegmental errors and thus be a good role model for their students.

### 5.4. Discussion for Research Questions 3 and 4

The research questions 3 and 4 intended to reveal the participants' competency in recognizing and producing the accurate juncture phonemes in *If-clauses*. It must be noted that junctures or pauses play a crucial role in conveying different meanings. For this reason, tentative steps need to be taken towards the teaching of juncture phonemes (Morley, 1991; Levis, 1999; Hahn, 2004; Jenkins, 2005; Demirezen, 2013; Wells, 2014). The production of juncture phonemes was analyzed in *If-clauses* in this study. 12 sentences in three types of *If-clauses* were listened by the participants and they were asked to recognize the correct type of juncture in each question. They were also asked to read aloud the sentences and record their voices whilst reading so that it could be possible to evaluate their production of accurate juncture phonemes in *If-clauses*. The participants had no knowledge about the juncture phonemes before the introduction of treatment sessions; therefore, the rate of incorrectness in their answers in the pre-test was very high. The rate of correctness in terms of producing correct juncture phonemes in the production of *If-clauses* went up gradually when the participants learnt what juncture is and what it is used for.

In the third section of the pre-test and post-test, the participants were expected to recognize and produce the juncture phonemes appropriately. However, when the pre-test results were examined, it is seen that more than 50% of the participants could not recognize and more than 40% of them could not produce accurate juncture phonemes in *If-clauses*. However, the percentages of incorrectness in both recognition and production plummeted upon the introduction of treatment sessions. The post-test results suggested that more than 50 % of the participants could recognize the juncture phonemes in *If-clauses* when they listened to the *If-conditional* sentences and more than 70% of the participants could use the juncture phonemes; that is, they paused before commas. In other words, they managed to pause when the dependent clause precedes the main clause.

Regarding the third research question, it can be stated that 77.59% of the participants do pause when the dependent clause precedes the independent clause in *If-conditional* sentences. In *If-conditional* sentences, when the dependent clause is used at the beginning, the *If-clause* is separated by a comma. The prospective Turkish teachers of English, who are the participants of this study, were inspired by the same grammatical rule in Turkish and thus applied the same rule in *If-conditionals*. To be more specific, in Type 1 conditional sentences, 80.32% of the participants; 86.06% in Type 2 conditionals and 71.31 of the participants made a pause before the comma in Type 3 conditional sentences in which *If-clause* is used at the beginning. As stated before, the majority of the participants might have been inspired by the same rule in Turkish as regards to the reason for why they did make a pause before the comma. However, it must also be born in mind that there are differences in languages as in English and Turkish which are phonologically and grammatically different. When second language learners transfer the rules of their L1 to L2, its outcomes might be twofold: either positive or negative transfer. The case with the prospective Turkish teachers of English was positive, yet there are some issues to be considered here. First, awareness-raising activities must be conducted. The pre-service Turkish teachers of English must be trained in terms of metacognitive and meta-phonological awareness. They must also be trained to learn the differences between the two languages through contrastive analysis (Lado, 1957) or other means of strategies or hypotheses. After it was maintained that their awareness was raised phonetically and phonologically, pre-service Turkish teachers of English must receive treatment sessions on pronunciation and intonation. The execution of this can be done in two ways. First, those who are currently prospective Turkish teachers of English can receive treatment sessions on pronunciation and intonation to rehabilitate their segmental and suprasegmental errors. Second, the incorporation of a supervised and organized pronunciation and intonation instruction must be integrated into the ELT curriculum for long-term goals.

In relation to the fourth research question, several issues can be considered. Prior to that, there are a few points to be made clear. First, there are 12 *If-conditional* sentences in the third section of the pre-test and post-test; 9 of them have /2 3 2/ -/2 3 1/ pitch pattern whereas the other three have /2 3 1/ pattern. Of these 12

sentences, *If-clause* is at the beginning in 6 of them whereas it is in the middle in the other 6. When *If-clause* is used at the beginning of *If-conditional* sentences, it is separated by a comma thus making it urgent for the speakers to make a pause before the comma. However, the case is opposite with a few exceptions when the *If-clause* is used in the middle as there is no comma needed. When the participants do not see a comma in the sentences where the dependent clause precedes the main clause, they still tend to make a pause before *If*, which is related to the pitch pattern of the sentence. As aforementioned, items numbered 27, 31, and 36 have /2 3 1/ pitch pattern whereas the items numbered 28, 32, and 35 have /2 3 2 / - /2 3 1/ pitch pattern although the dependent clause precedes the main clause in all these six items. There is no exception in the sentences where the dependent clause precedes the main clause in terms of juncture as they have a comma at the end of the dependent clause thus making it necessary for the speakers to produce sustained juncture phoneme and pause there. However, in the cases where the main clause precedes the dependent clause, there might be some exceptions as in the three cases in this study. It must be reminded here that those three items (27, 31, and 36) were intentionally included in the pre-test and post-test by the researcher in order for the participants not to generalize the rule concerning the production of pitch pattern or juncture phoneme. To get to the main point about the fourth research question which is about the type of pitch pattern preferred by the participants when the dependent clause is preceded by the main clause, it can be stated that 65.84% of the participants preferred to use /2 3 2 / - / 2 3 1/ pitch pattern whereas 65.29% of them preferred /2 3 1/ pattern. In other words, the majority of the participants utilized /2 3 2/ - /2 3 1/ pitch pattern when the main clause precedes the dependent clause.

**Table 5.3: Summary of Pre-test and Post-test Results for Juncture Phonemes**

| | N | Pre-test Mean | SD | Post-test Mean | SD | p value | Pre-test Percentage | Post-test Percentage |
|---|---|---|---|---|---|---|---|---|
| **REC** | 61 | 5.36/12 | 4.09 | 6.86/12 | 3.15 | 0.000 | 44.66% | 57.16% |
| **PRO** | 61 | 6.56/12 | 2.73 | 8.83/12 | 1.90 | 0.000 | 54.66% | 73.58% |

To conclude the discussion for research questions 3 and 4, it can be summarized that there has been a significant difference between the pre-test and post-test results of the participants in terms of recognition and production of the accurate

juncture phonemes of If-clauses. Another issue to be considered is the fact that the intervention sessions were proven to be effective bearing in mind the increase in the mean scores of the participants' correct answers in the post-test. It must also be emphasized that the majority of the participants improved their competence in recognizing and utilizing the correct juncture phonemes after they have taken the special training on the intonation of If-clauses. According to the results presented above, it can be plausible to assert that the retention and acquisition of the accurate juncture phonemes of If-clauses will be maintained with the help of a continuous and well-developed instruction on intonation.

### 5.5. Discussion for Research Question 5

The last research question can be considered as the summary of all the research questions in that it is regarded as an overall evaluation of the findings reached so far. It was explained and displayed in the findings of the last research question that the majority of the participants improved their competence in utilizing the intonation patterns of *If-clauses.* In other words, they were developed in placing the primary stress accurately, utilizing the accurate pitch patterns, and producing the correct juncture phonemes of *If-clauses*. The table below summarizes the overall percentages of the participants in all three elements of intonation; namely, primary stress, pitch, and juncture.

**Table 5.4: Summary of the Overall Pre-test and Post-test Scores for the Intonation Patterns of *If-Clauses***

| | PRE-REC | | POST-REC | | PRE-PRO | | POST-PRO | |
|---|---|---|---|---|---|---|---|---|
| | **Correct** | **Incorrect** | **Correct** | **Incorrect** | **Correct** | **Incorrect** | **Correct** | **Incorrect** |
| **Stress** | 69.81% | 30.19% | 84.17% | 15.83% | 51.61% | 48.39% | 56.65% | 43.35% |
| **Pitch** | 43.01% | 79.89% | 79.63% | 20.37% | 49.13% | 50.87% | 55.56% | 44.44% |
| **Juncture** | 44.81% | 55.19% | 57.23% | 42.77% | 54.74% | 45.26% | 73.64% | 26.36% |
| **Total** | 52.54% | 47.46% | 73.67% | 26.33% | 51.82% | 48.18% | 61.95% | 38.05% |

Table 5.4 provides the overall percentages of the pre-test and post-test scores of the participants in both recognition and production of stress, pitch, and juncture of *If-clauses*. It can be inferred from the table that more than 60% of the participants had some knowledge of the primary stress as they could recognize it in *If-*

*conditional* sentences whereas 48.39% of them could not produce the primary stress accurately. As to the recognition of the pitch patterns, more than 40% of the participants performed well in the pre-test while an approximate percentage of them (49.13%) utilized the pitch patterns correctly. In terms of both recognition and production, around 50% of the participants performed well in the pre-test. There has been a major improvement in the percentages of correctness in all three categories; namely, stress, pitch, and juncture of *If-clauses* in terms of recognition and production in the post-test. To sum it up, the percentage of incorrect answers of the participants in the recognition of the intonation of *If-clauses* plummeted while the percentage of correct answers in producing the correct intonation patterns of *If-clauses* increased upon the introduction of the treatment sessions.

From the discussion held so far, it can be understood that both the recognition and production of the intonation patterns accurately are very significant in communication so as not to pave the way for any misunderstanding or misinterpretation as the absence of any elements of intonation generates problems in oral communication. It is a very well-known fact that native speakers of English do not pay attention to what non-native speakers convey unless they place the primary stress on one of the content words in their sentences. In addition, placing the primary stress on different content words may change the meaning thus cause misinterpretation. Pitch, in its most basic terms, is the ups and downs or the highness and loudness in one's voice and determines whether the utterance is an affirmative sentence or interrogative. Moreover, it conveys some information on the speaker's emotions as the highness or loudness in one's voice might mean some strong emotions such as surprise, happiness, or anger whereas the lowness of the voice might signify weak emotions such as sadness or grief. For that reason, utilizing the correct pitch contours in speech might prevent any communication problems. The use of juncture phonemes in speech bears the same amount of importance as the other two elements of intonation in that juncture implies whether the utterance is over. Furthermore, there is the likelihood of sounding foreign and unnatural in the absence of inaccurate production of juncture phonemes. Taking all this into consideration, teaching the intonation to the prospective EFL teachers via electronic dictionaries and other devices becomes vital as teaching English will be their profession. In terms of professional development and work ethics, pre-service

teachers of English must be trained well in both pronunciation and intonation now that intonation instruction is a neglected part in the field of ELT, EFL, and teacher education.

### 5.6. Conclusion

In the present chapter, relative and extensive discussion was made on each research question with the help of data summarized in tables which were provided at the end of each discussion point. Further discussion was held upon the provision of tables of summary regarding the research question. Specific references were made to the related literature and contributions to the field was also explained.

## 6. CONCLUSION

The significance of teaching suprasegmentals, particularly intonation, was deliberated and urged throughout this thesis study with the assistance and provision of a great amount of research that justify the teaching of intonation and its consequences otherwise. In a similar vein, it was regularly iterated that the teaching of intonation was disregarded by a great number of teachers and researchers (Brazil, 1997; Celce-Murcia et al., 2010; Baker & Murphy, 2011; Demirezen, 2014) owing to several accounts such as the lack of knowledge of competence and meta-phonological awareness. In Turkish educational settings, the importance attached to intonation instruction is similar, which might result from the fact that Turkish teachers of English do not feel themselves competent enough in teaching intonation (Demirezen, 2007, 2009) and that Turkish learners of English are not exposed to authentic language opportunities through which they can get a chance to interact with other speakers of English and practice the language. For that reason, the urgency and necessity for intentional treatment and remedial training in intonation for both sides emerge. In other words, in line with the findings of this study, it must be expressed that Turkish learners of English must be taught the intonation of English and that Turkish teachers of English must receive treatment sessions in intonation as well as special training in how to teach intonation. The reason for this could be explained in the following way. Turkish learners of English must be taught intonation to maintain sound conversations, be at least near native-like in speech, with native speakers or other speakers of English and in order not to have accented speech or sound foreign to native speakers of English. Turkish teachers of English, on the other hand, must be trained in intonation to remediate their existing problems with intonation since they do represent the native speaker of English inside classrooms. For that reason, they must be proficient and competent enough in recognizing and producing the accurate intonation patterns in English.

**Table 6.1: Summary of Pre-test and Post-test Results in terms of Intonation of *If-Clauses***

| Intonation Patterns | Pre-Rec | Post-Rec | Pre-Pro | Post-Pro |
|---|---|---|---|---|
| **Correct** | 52.54% | 73.67% | 51.82% | 61.95% |
| **Incorrect** | 47.46% | 26.33% | 48.18% | 38.05% |

One of the primary goals of this study was to unearth this common knowledge. It was demonstrated in this study that a great number of prospective Turkish teachers of English (47.46%) could not perceive the elements of intonation; namely, stress, pitch, and juncture while 48.18% of the participants could not produce the accurate intonation patterns of *If-clauses* before the intervention. However, upon the introduction of treatment sessions which encompassed various drills and practice, 73.67% of the participants could recognize the primary stress, pitch patterns and juncture phonemes of *If-clauses* whereas 61.95% of them were able to produce the accurate intonation patterns of *If-clauses* in their speech. These findings suggested that certain elements of intonation such as primary stress, pitch, and juncture are teachable. It was also suggested by the findings of this study that the level of phonological competence is in direct proportion to the extent to which intonation is considered as a significant component of suprasegmentals. In other words, phonological competence and meta-phonological awareness of prospective Turkish teachers of English can be ameliorated and furthered when they receive treatment sessions in intonation through which they are exposed to various kinds of audio and visual exercises about the perception and production of primary stress, pitch patterns, and juncture phonemes. It was demonstrated that 61 participants of this study, who are prospective Turkish teachers of English, had intonational problems as indicated in the pre-test results (more than 45%) and that their problems related to the recognition and production of accurate intonation patterns of *If-clauses* were, to a greater extent, rehabilitated utilizing the training sessions on intonation (more than 60%).

From these findings, it can be stated that there can be amelioration in relation to intonational problems of prospective teachers of English with the assistance and utilization of first treatment and then treatment sessions during which participants are subject to authentic language and exercises on the subject matter. It must also be noted that not only prospective teachers of English but teachers-on-the-job

must as well receive treatment in order for them to promote their level of phonological competence. Similarly, the level of phonological consciousness or awareness of teachers of English must also be enhanced. The pedagogical implications will be presented and discussed in detail in the following section, yet it must also be highlighted that intonation, more generally, suprasegmentals, ought to be incorporated into the curricula of ELT in Turkey for prospective Turkish teachers of English to have higher levels of meta-phonological awareness and phonological competence. Since English is spoken as a foreign language in Turkey and that there are not enough opportunities for Turkish speakers of English to interact with native speakers or other speakers of English, due importance must urgently be attached to this phenomenon within Turkish educational context. As Bukowski (2011) concluded, despite differing opinions concerning the justifiability of intonation teaching, this element of prosody should not be overlooked in foreign language instruction.

### 6.1. Pedagogical Implications and Limitations

Several alternative approaches can be suggested in terms of teaching intonation. First, intonation instruction must be contextualized since intonation is apparent and variable from context to context. In other words, instead of presenting intonation in isolated sentences, prospective EFL teachers must be subject to contextualized instruction of intonation. Another issue to be pointed out here is that authentic language must be preferred while teaching intonation. In teaching the primary stress, for instance, dialogues or other means of contexts can be chosen in instead of elliptical sentences in which the words with primary stress are capitalized or highlighted. Secondly, attainable outcomes must be determined for learners to acquire since intonation is itself an abstract concept and is believed to be difficult to learn. In accompany with useful textbooks and practical materials, the aspects of intonation such as stress (prominence), pitch patterns, and juncture (pause), which are believed to influence communication, must be taught. Thirdly, as Levis (1999) pinpointed, intonation should be explicitly joined to the communicative uses of language as this would change the way intonation is taught. For instance, a connection can be made between intonation and specific

communicative uses to which intonation clearly contributes when designing textbooks.

In relation to the teaching of the elements of intonation, practical and technological methods should be adopted in addition to the existing methods and models such as Audio-Articulation Model (Demirezen, 2003, 2004). Speech visualization technology, for instance, can be utilized in the teaching of pitch variations and juncture in English. For the teaching of stress or prominence and other elements of intonation, contextualized syllabuses can be devised for prospective teachers of English. As discussed in this study, in addition to the grammatical function of intonation (here *If-clauses* and intonation), other functions such as attitudinal and discourse functions should also be highlighted by comparison of the advantages and disadvantages to be gained in the absence of the elements of intonation in speech. As proposed by Anderson-Hsieh (1992, p.202), the objectives in teaching suprasegmentals must be to heighten the students' understanding of English stress, rhythm and intonation; increase the students' awareness of the extent to which suprasegmentals in their own speech deviated from native speaker norms; improve the students' understanding of connected speech; and improve their comprehensibility when using the spoken language of their academic disciplines. Another way to teach certain elements of intonation could be through accent reduction techniques such as IBM SpeechViewer and PRAAT (Boersma & Weenink, 2004) through which both auditory and visual feedback can be provided for learners. As concluded by Seferoğlu (2005), technology has a lot to offer in Turkish EFL settings where authentic language input is scarce. As for the participants of this study, such techniques and methods must be implemented in Turkish professional teacher education settings as well since teacher trainees are the prospective teachers of English and they must represent a proper model for their future students.

Concerning EFL teacher trainees, several issues need to be considered. First, the fact that they have a poor educational background which accounts for their incompetency in prosodic features of English, namely intonation, does not necessarily mean that it is impossible for them to enhance their abilities regarding intonation. On the contrary, they must be urged to receive both treatment and then remedial training on intonation, if necessary, since lack of knowledge in that

subject does not indicate so-called “learned helplessness”, rather Turkish teacher trainees must be motivated by the fact that they can provide a decent role-model to their students when they have become competent in intonation.

Second, that Turkish is a syllable-timed language and English is stress-timed thus making it hard for Turkish teacher trainees to teach intonation, specifically primary stress, should not be an obstacle to teaching the intonation of English. Contrarily, a contrastive analysis must be conducted between the two languages to recognize the similarities and differences in terms of intonation or other aspects of suprasegmentals. As Avery and Ehrlich (1992) discussed, prospective teachers of English need to learn how to apply correct stress in sentences as stress-timed languages entail. In addition to their discussion, it can be added that prospective teachers of English should not only learn the accurate placement of stress but be competent in the recognition and production of pitch patterns and juncture in both *If-conditional* sentences and other grammatical structures. While teaching a grammatical structure in the class, for instance, Turkish teacher trainees must also include the contextualized intonation instruction of that certain grammatical point into their classes so that a holistic learning (here intonation and grammar) takes place on part of the learners.

Third, systematic training must be received by Turkish teacher trainees as it is expected and considered that systematic exposure to various in-depth contextualized materials would remediate the existing intonational problems of teacher trainees. In relation to the content of treatment sessions, it must also be urged that the content of these sessions should be arranged considering the needs of teacher trainees. In addition, the most important aspects of intonation, which are also teachable, should be included in these sessions. Fourthly, it must be emphasized that non-native teachers of English, particularly pre-service Turkish teachers of English must be subject to awareness-raising activities in order for them to realize the vitality of the acquisition of intonation patterns of English by indicating its contribution to their professional development. Finally, it is essential to set some goals and determine the position of treatment and then treatment sessions for prospective EFL teachers within teacher education context since it is urgent to not only provide pre-service teachers of English with the knowledge of suprasegmentals and help them utilize this knowledge in certain contexts, but also

enable them to have certain skills and competence so that they will be able to teach the intonation of English to their students. For that reason, training must be received by teacher trainees to remediate their intonational problems and pre-service teacher training courses must be planned for teacher trainees so that they could learn how to teach and what to teach in relation to intonation.

With regard to the incorporation of intonation into and textbooks, the intonation of *If-clauses* must also be included in the communicative course books. In her comprehensive analysis of course books, for example, Szpyra-Kozlowska et al. (2003) revealed that intonation in emotional statements, questions tags, *Wh-questions*, neutral statements, *yes-no questions*, enumeration were included by the majority of course books in a sample of 20 communicative course books. In addition to the inclusion of intonation in those aspects, considering the connection between grammar and intonation, a systematic study must be carried out to determine and devise not only the elements of intonation to teach and incorporate into course books but also the integration of intonation into grammatical structures. The integration of intonation into course books bears the same amount of importance as the training of prospective teachers of English since both complement each other. It must also be noted that not only the grammatical function of intonation but also the other functions, particularly discourse must be taught. As Bukowski (2011) concluded that the lack of communicative and discourse-oriented activities seems to clash with the contemporary communicative tendencies in foreign language teaching, which calls for a change in intonation teaching syllabuses through the introduction and gradual increase in the amount of discourse intonation practice. To summarize, considering the monotony in the research and implementation of intonation, it is urged that the content and structure of the published materials be reassessed and the treatment sessions in intonation for prospective teachers of English be re-evaluated and enriched in terms of content, structure and organization.

Concerning the integration of intonation instruction in Turkish teacher education settings, it can be asserted that the participants of this study had no previous specific education on intonation except Listening and Articulation I/II courses. In these courses, they had no opportunity to learn certain elements of intonation such as primary stress, pitch and juncture phonemes. Instead, they focused barely on

intonation. For these reasons, a new course or courses titled Educational Phonetics and Phonology must be integrated in teacher education curriculum. With the help of varied technological tools and practice materials, several elements of intonation can be taught to prospective teachers of English, which will pave the way for more knowledgeable and professional teachers. Bearing in mind the significance of intonation in communication (Mitrofanova, 2012; Pickering & Baker, 2014; Reed & Michaud, 2015; Demirezen, 2015; Saito & Saito, 2016), necessary steps must be taken to integrate intonation in teacher education curriculum. In other words, the current curriculum or teacher education must be re-designed for a better generation of teachers of English in terms of rich knowledge base and professional confidence.

A couple of issues could be explained about the limitations of this study. First, required data were collected from the participants who are freshmen at the ELT Department of a prominent Turkish state university. For that reason, there cannot be a comparison of several variables with the students from other state or private universities. Secondly, this study focused on the teaching of the elements of intonation while there are other components of suprasegmentals such as rhythm and melody which must also be studied or examined and given importance to. Thirdly, there could have been a better way to collect the voice recordings of the participants which form the basis of data collection. For this study, the voice recordings of the participants were gathered via e-mail.

### 6.2. Suggestions for Future Research

The present study aimed at evaluating the current level of competence of prospective Turkish EFL teachers in relation to the perception and production of the intonation patterns of *If-clauses*. For this reason, they were subject to treatment classes in which a wide range of exercises on teaching the accurate stress, pitch, and juncture of *If-clauses* were done. For future research, the following recommendations can be made:

- Firstly, participants from different universities across Turkey can be included in a future study for the purposes of increasing the degree of generalizability of the population and validity of the findings within Turkish educational setting.

Similarly, the participants of this study were prospective EFL teachers. In another study, teachers-on-the-job can be investigated in relation to their intonational problems and thus several insights could be gained or various conclusions could be drawn.

- Secondly, another suggestion for future research can be given in relation to the teaching of other aspects of suprasegmentals. The current study focused on the teaching of intonation, including stress, pitch, and juncture. Another study might focus on the teaching of other elements of suprasegmentals such as rhythm and paralinguistic features. This way, whether they are significant or teachable can be revealed.
- Thirdly, the length and duration of treatment lessons can be extended to a whole academic year unlike this study. Data gathered throughout the academic year will probably yield more different results than the findings of this study. In a similar vein, the content of the treatment sessions can be enriched and systematized in connection with the academic year.
- Fourthly, the present study was conducted utilizing a pre-test post-test experimental research design and thus data were gathered quantitatively. Another future study could gather qualitatively as well in addition to quantitative data. For that reason, semi-structured interviews or questionnaires could be utilized to examine the attitudes of prospective teachers of English on treatment sessions.

## REFERENCES


Alexander, L. G., & Close, R. A. (1990). *Longman English grammar practice*. London, England: Longman.

Ampawan, I. (2011). The study of the effectiveness of audio-articulation model in improving Thai learners' pronunciation of fricative sounds. Master Thesis, M.A. (Teaching English as a Foreign Language). Bangkok: Graduate School of Srinakharinwirot University.

Anderson-Hsieh, J. (1990). Teaching suprasegmentals to international teaching assistants using field-specific materials. *English for Specific Purposes*, *9*(3), 195-214.

Anderson-Hsieh, J. (1994). Interpreting visual feedback on suprasegmentals in computer assisted pronunciation instruction. *CALICO Journal*, *11*(4), 5-22.

Anthony, J. L., & Francis, D. J. (2005). Development of phonological awareness. *Current Directions in Psychological Science*, *14*(5), 255-259.

Arslan, R. Ş. (2013). Non-native pre-service English language teachers achieving intelligibility in English: focus on lexical and sentential stress. *Procedia-Social and Behavioral Sciences*, 70, 370-374.

Atak-Damar, E. (2014). Task-based video use for the improvement of English stress and intonation. *Journal of Educational and Social Research*, *4*(2), 227.

Avery, P., & Ehrlich, S. (1992). *Teaching American English pronunciation*. Oxford: Oxford University.

Baddeley, A. D. (1978). The trouble with levels: A reexamination of Craik and Lockhart's framework for memory research. *Psychological Review*, 85, 139-152.

Baker, A. (1981). *Ship or sheep?* (2nd ed.). Cambridge: Cambridge University.

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.

Baker, A., & Murphy, J. (2011). Knowledge base of pronunciation teaching: staking out the territory. *TESL Canada Journal*, *28*(2), 29-50.

Bardovi-Harlig, K. (1986). *Discourse determinants of English sentence stress*. Bloomington: Indiana University Linguistics Club.

Beckman, M. E. (1986). *Stress and non-stress accent*. Dordrecht: Fortis.

Bertran, A. P. (1999). Prosodic typology: on the dichotomy between stress-timed and syllable-timed languages. *Language Design*, 2, 103–130.

Blau, E. K. (1990). The effect of syntax, speed, and pauses on listening comprehension. *TESOL Quarterly*, *24*(4), 746-753.

Bloodworth, A. (2016). Trends and idiosyncrasies in cross-linguistic influence: a case study. Retrieved from the University of Minnesota Digital Conservancy, http://hdl.handle.net/11299/180991.

Boersma, P.l.,& Weenink, D. (2004). Praat: Doing phonetics by computer (version 4.2) [Computer program]. Retrieved from http://www.praat.org.

Bond, Z. S., & Garnes, S. (1980). Misperceptions of fluent speech. In Cole, R.A. (Ed.), *Perception and production of fluent speech*, (pp. 115-132). New York: Routledge.

Bowen, T., & Marks, J. (1992). *The pronunciation book*. Pilgrims: Longman.

Bradford, B. (1988). *Intonation in context*. Cambridge: Cambridge University.

Brazil, D. (1975). Discourse intonation: Discourse analysis monographs no:1. Birmingham: University of Birmingham, English Language Research.

Brazil, D. (1985). Phonology: Intonation in discourse. *Handbook of discourse analysis*, 2, 57-75.

Brazil, D. (1994). *Pronunciation for advanced learners of English student's book*. Cambridge: Cambridge University.

Brazil, D. (1997). *The communicative value of intonation in English*. Cambridge: Cambridge University.

Brazil, D., Coulthard, M., Johns, C., & Johns, C. (1980). *Discourse intonation and language teaching*. London: Longman.

Breitkreutz, J., Derwing, T.M., & Rossiter, M.J. (2002). Pronunciation teaching practices in Canada. *TESL Canada Journal*, 19, 51-61.

Brown, A. (2014). *Pronunciation and phonetics: A practical guide for English language teachers*. New York: Routledge.

Brown, G., Currie, K. L., & Kenworthy, J. (2015). *Questions of intonation* (Vol. 5). New York: Routledge.

Bukowski, D. (2011). Intonation in teaching pronunciation: In search of a new perspective. *Humanizing Language Teaching*, *13*(5). Retrieved from http://www.hltmag.co.uk/oct11/mart03.htm.

Carr, P. (2013). *English phonetics and phonology* (2nd ed.). UK: Wiley-Blackwell.

Cauldwell, R., & Hewings, M. (1996). Intonation rules in ELT textbooks. *ELT Journal*, *50*(4), 327-334.

Celce-Murcia, M., Brinton, D., & Goodwin, J. (1996). *Teaching pronunciation*. Cambridge: Cambridge University.

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (2010). *Teaching pronunciation hardback with audio CDs (2): A course book and reference guide*. Cambridge: Cambridge University.

Chambers, F. (1997). What do we mean by fluency? *System, 25*(4), 535–544.

Chapman, M. (2007). Theory and practice of teaching discourse intonation. *ELT journal*, *61*(1), 3-11.

Chomsky, N., & Halle, M. (1968). *The sound pattern of English*. New York: Harper & Row.

Chun, D. M. (2013). Technology and discourse intonation. In C. A. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics*. Hoboken, NJ: Wiley-Blackwell.

Clennell, C. (1997). Raising the pedagogic status of discourse intonation teaching. *ELT Journal*, *51*(2), 117-125.

Collins, B., & Mees, I. M. (2013). *Practical phonetics and phonology: a resource book for students*. New York: Routledge.

Comrie, B. (1986). *Conditionals: A typology*. In Traugott et al. (Eds.), 77-99.

Council of Europe (2001). Common European framework of reference for languages: Learning, teaching, assessment. Cambridge: Cambridge University Press. Available at www.coe.int/lang → Common European Framework of Reference for Languages.

Crowder, R. G. (1978). Language and memory. In J. F. Kavanagh & W. Strange (Eds.), Speech and language in the laboratory, school, and clinic. (pp. 267–307). Cambridge, Mass.: MIT.

Cruttenden, A. (1986). *Intonation*. Cambridge: Cambridge University.

Crystal, D. (1981). *Clinical Linguistics*: *Disorders of Human Communication*. New York: Springer Verlag Wien.

Crystal, D. (1995). *The Cambridge encyclopedia of the English language*. Cambridge: Cambridge University.

Crystal, D. (2008). *A dictionary of linguistics and phonetics (*6th ed*.).* Oxford: Blackwell.

Cutler, A., & Butterfield, S. (1992). Rhythmic cues to speech segmentation: Evidence from juncture misperception. *Journal of Memory and Language*, *31*(2), 218-236.

Cutler, A., Dahan, D., & Donselaar, W. (1997). Prosody in the comprehension of spoken language: A literature review. *Language and Speech*, 40, 141–201.

Dachkovsky, S. (2004). Facial expression as intonation in Israeli sign language: the case of neutral and counterfactual conditionals. *Signs of the time. Selected papers from TISLR*, *8*, 61-82.

Dalton, C., & Seidlhofer, B. (1994). *Pronunciation*. Oxford: Oxford University.

Dancygier, B. (1998). *Conditionals and predication*. Cambridge: Cambridge University.

Dancygier, B. (1999). *Conditionals and prediction: Time, knowledge and causation in conditional constructions*. Cambridge: Cambridge University.

De Bot, C. L. J. (1980). The role of feedback and feedforward in the teaching of pronunciation - an overview. *System*, *8*(1), 35-45.

De Bot, K. (1983). Visual feedback of intonation I: Effectiveness and induced practice behavior. *Language and Speech*, *26*(4), 331-350.

De Bot, K. (1986). The transfer of intonation and the missing data base. In: Eric Kellerman and Michael Sharwood Smith (Eds.). *Crosslinguistic influences in second language acquisition.* New York: Pergamon.

Declerck, R., & Reed, S. (2001). *Conditionals: a comprehensive empirical analysis*. New York: Mouton de Gruyter.

Demirezen, M. (1986). *Phonemics and phonology: Theory through analysis*. Ankara: Bizim Büro.

Demirezen, M. (2003). İngilizce'nin theta sesbiriminin (peltek-t) Türkler için çıkardığı sesletim sorunları. *Tömer Dil Dergisi*, 120, 57-71.

Demirezen, M. (2004). İngilizce'nin peltek-d (ETH) sesbiriminin Türkler için çıkardığı sesletim sorunları ve çözümler. Çankaya University, *Journal of Arts and Sciences*, *1*(1), 7-22.

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). 183-191.

Demirezen, M. (2006). Flapping in North American pronunciation: Case 1 'The change of /t/ and /d/ into [D] in pronunciation'. *Journal of Language and Linguistic Studies*, *2*(1). 88-100.

Demirezen, M. (2007). A model to rehabilitate a fossilized pronunciation error of Turkish English language teachers: The English consonant phoneme /ŋ/ wrongly articulated as /ŋk/ through nasal devoicing. *Journal of Language and Linguistic Studies*, *3*(2). 290-303.

Demirezen, M. (2008). The recognition and the production of question forms of English intonation by Turkish first year students. *Worldwide Forum on Education and Culture-Putting Theory into Practice: Teaching for the Next Century* .4-5 December, Rome, Italy.

Demirezen, M. (2009). An analysis of the problem-causing elements of intonation for Turkish teachers of English. *Procedia-Social and Behavioral Sciences*, *1*(1), 2776-2781.

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.

Demirezen, M. (2012). Demonstration of problems of lexical stress on the pronunciation Turkish English teachers and teacher trainees by computer. *Procedia-Social and Behavioral Sciences*, 46, 3011-3016.

Demirezen, M. (2013). Sustained juncture in teaching spoken English: Application by computer in teacher education. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi-Hacettepe University Journal of Education*, 1, 109-120.

Demirezen, M. (2014). The tag questions: Certainty versus uncertainty issue in English pitches and intonation in relation to anthropology. *Anthropologist*, *18*(3), 1059-1067.

Demirezen, M. (2015a). Determining the difficulties of intonation with both… and and not only… but also: A computational analysis in teacher education. *Procedia-Social and Behavioral Sciences*, 199, 12-20.

Demirezen, M. (2015b). Determining the intonation contours of compound-complex sentences uttered by Turkish prospective teachers of English. *Procedia-Social and Behavioral Sciences*, *186*, 274-282.

Demirezen, M. (2015c). Evaluation of the production of the intonation of adverb clauses with time by Turkish English teachers: A demonstration by computer application. *Anthropologist*, *22*(2), 157-166.

Demirezen, M. (2015d). Teaching the perception of the intonation of finally extended simple sentences: A demonstration by computer. *Procedia-Social and Behavioral Sciences*, 199, 21-29.

Demirezen, M. (2015e). The perception of primary stress in initially extended simple sentences: A demonstration by computer in foreign language teacher training. *Procedia-Social and Behavioral Sciences*, 186, 1115-1121.

Demirezen, M., & Topal, I. H. (2015). Fossilized pronunciation errors from the perspectives of Turkish teachers of English and their implications. *Procedia-Social and Behavioral Sciences*, 199, 793-800.

Derwing, T. M., & Munro, M. J. (1997). Accent, intelligibility, and comprehensibility. *Studies in second language acquisition*, *19*(01), 1-16.

Derwing, T. M., Munro, M. J., Wiebe, G. (1997). Pronunciation instruction for fossilized learners. Can it help? *Applied Language Learning*, *8*(2), 217-35.

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.

Derwing, T. M., & Munro, M. J. (2005). Second language accent and pronunciation teaching: A research-based approach. *TESOL Quarterly*, *39*(3), 379-397.

Doughty, C., & Williams, J. (Eds.). (1998). *Focus on forms in classroom second language acquisition.* Cambridge: Cambridge University.

Fayer, J. M., & Krasinski, E. (1995). Perception of hesitation in nonnative speech. *Bilingual Review/La Revista Bilingüe*, *20*(2), 114-121.

Ferguson, C. A. (1975). Toward a characterization of English foreigner talk. *Anthropological linguistics*, 17, 1-14.

Field, J. (2005). Intelligibility and the listener: The role of lexical stress. *TESOL Quarterly*, *39*(3), 399-423.

Frost, R. (1975). *The way of language: An introduction*. New York: Harcourt Brave Jovanovich, Inc.

Frota, S. (2014). *Prosody and focus in European Portuguese: Phonological phrasing and intonation*. New York: Routledge.

Geluykens, R., & Swerts, M. (1994). Prosodic cues to discourse boundaries in experimental dialogues. *Speech Communication*, *15*(1), 69-77.

Gilbert, J. B. (1993). *Clear speech: Pronunciation and listening comprehension in North American English* (2nd ed.). New York: Cambridge University.

Gilbert, J. B. (2008). *Teaching pronunciation: Using the prosody pyramid*. New York: Cambridge University.

Gilbert, J. B. (2012). Clear speech: Pronunciation and listening comprehension in North American English (4th ed.). New York: Cambridge University.

Gillon, G. T. (2004). *Phonological awareness: From research to practice*. New York: Guilford.

Gliner, J. A., Morgan, G. A., & Leech, N. L. (2009). *Research methods in applied settings: An integrated approach to design and analysis* (2nd ed.), New York: Routledge.

Goh, C. C. (2001). Discourse intonation of English in Malaysia and Singapore: Implications for wider communication and teaching. *RELC Journal*, *32*(1), 92-105.

Goodwin, J. (2013). Pronunciation teaching methods and techniques. In C.A. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics*. (pp. 4725- 4734). Hoboken, NJ: Blackwell.

Gordon, J., I. Darcy, & D. Ewert. (2013). 'Pronunciation teaching and learning: Effects of explicit phonetic instruction in the L2 classroom' in J. Levis and K. LeVelle (Eds.), (pp. 194–206). *Proceedings of the 4th Pronunciation in Second Language Learning and Teaching Conference*, Iowa State University.

Götz, S. (2013). *Fluency in native and nonnative English speech* (Vol. 53). Philadelphia, PA: John Benjamins.

Grüter, T., & Crago, M. (2012). Object clitics and their omission in child L2 French: The contributions of processing limitations and L1 transfer. *Bilingualism: Language and Cognition*, *15*(03), 531-549.

Gut, U. (2009). *Introduction to English phonetics and phonology* (Vol. 1). Frankfurt: Peter Lang.

Hahn, L. D. (2004). Primary stress and intelligibility: Research to motivate the teaching of suprasegmentals. *TESOL Quarterly*, *38*(2), 201-223.

Halliday, M. A. K. (1967). *Intonation and grammar in British English*. The Hague: Mouton.

Halliday, M. A. K. (1970). *A course in spoken English: Intonation*. London: Oxford.

Halliday, M.A.K. (1985). *Spoken and written language*. London: Oxford.

Halliday, M. A. K. (1994). *Functional grammar.* London: Edward Arnold.

Hardison, D. M. (2004). Generalization of computer-assisted prosody training: Quantitative and qualitative findings. *Language Learning & Technology*, *8*(1), 34-52.

Harmer, J. (2001). *The practice of English language teaching* (3rd ed.). Harlow, England: Pearson.

Hayati, A. M. (1998). A contrastive analysis of English and Persian intonation. *Papers and studies in contrastive linguistics*, 34, 53-72.

Hincks, R. (2003). Speech technologies for pronunciation feedback and evaluation. *ReCALL*, *15*(01), 3-20.

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). 99-115.

Hişmanoğlu, M. (2009). The pronunciation of inter-dental sounds of English: an articulation problem for Turkish learners of English and solutions. *Proceedia Social and Behavioral Sciences,* 1, 1697-1703.

Hişmanoğlu, M. (2012). Teaching word stress to Turkish EFL (English as a Foreign Language) learners through internet-based video lessons. *US-China Education Review*, A1, 26-40.

Hişmanoğlu, M., & Hişmanoğlu, S. (2011). Internet-based pronunciation teaching: An innovative route toward rehabilitating Turkish EFL learners' articulation problems. *European Journal of Educational Studies*, *3*(1). 23-36.

Hoorn, M., Smakman, D., & Foster, T. (2014). Pronunciation grading practices by teachers of English. In Rias van den Doel & Laura Rupp (Eds.), Pronunciation matters. Accents of English in the Netherlands and elsewhere, (pp. 95-108), Amsterdam: VU.

Hornsby, M. (2015). The "new" and "traditional" speaker dichotomy: bridging the gap. *International Journal of the Sociology of Language*, 231, 107-125.

Hsieh, K. T., Dong, D. H., & Wang, L. Y. (2013). A preliminary study of applying shadowing technique to English intonation instruction. *Taiwan Journal of Linguistics*, *11*(2), 43-65.

Huckvale, M. (2003). SFS/WASP Version 1.41 http://www.phon.ucl.ac.uk/resource /sfs/.

Hymes, D. (1972). "On communicative competence". In: J.B. Pride and J. Holmes (Eds.) *Sociolinguistics*. *Selected Readings*. Harmondsworth: Penguin, *(pp.* 269-293).

Intonation (2007). In MacMillan English Dictionary & CD-ROM Pack (2nd ed.). UK: MacMillan.

Intonation (2008). In Longman Dictionary of American English (DVD ROM). Essex: Pearson.

Intonation (2011). In Collins English Dictionary (11th revised ed.) Glasgow: HarperCollins.

Intonation (2012). In Longman Dictionary of Contemporary English (DVD ROM). Essex: Pearson.

Intonation (2012). In Oxford English Dictionary (7th ed.). Oxford: Oxford.

Intonation (2013). In Cambridge Advanced Learner's Dictionary (4th ed.). Cambridge: Cambridge.

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.

Jenkins, J. (2004). Research in teaching pronunciation and intonation. *Annual review of applied linguistics*, 24, 109-125.

Jenkins, J. (2005). Implementing an international approach to English pronunciation: The role of teacher attitudes and identity. *TESOL Quarterly*, *39*(3), 535-543.

Jones, D. (1960) *An outline of English phonetics*. (9th ed.), Cambridge: Heffer.

Juffs, A. (1990). Tone, syllable structure and interlanguage phonology: Chinese learners' stress errors. *IRAL-International Review of Applied Linguistics in Language Teaching*, *28*(2), 99-118.

Juslin, P. N., & Laukka, P. (2003). Communication of emotions in vocal expression and music performance: Different channels, same code? *Psychological bulletin*, *129*(5), 770-814.

Kang, O. (2010). Relative salience of suprasegmental features on judgments of L2 comprehensibility and accentedness. *System*, *38*(2), 301-315.

Karaazmak, F. (2015). Development of intonation patterns in time clauses among EFL prospective teachers: An experimental study (Master's Thesis). Retrieved from openaccess.hacettepe.edu.tr.

Karakaş, A., & Sönmez, E. (2011). The teaching of [θ] and [ð] sounds in English. *1st International Conference on Foreign Language Teaching and Applied Linguistics*. May 5-7 2011 Sarajevo.

Kay Elemetrics Corp (2004). Instruction manual for Visi-Pitch IV, Model 3950/Sona- Speech II, Model 3650. Kay Elemetrics Corp, Lincoln Park, NJ.

Kelly, L. G. (1969). *25 centuries of language teaching*. Rowley, MA: Newbury.

Kelly, G. (2001). *How to teach pronunciation (1st ed.).* Harlow: Longman.

Kenworthy, J. (1987) *Teaching English pronunciation*. London: Longman.

Ladefoged, P. (1982). *A course in phonetics*, (2nd ed.). New York: Harcourt Brace Jovanovich.

Lantolf, J. P. (1976). On teaching intonation. *The Modern Language Journal*, *60*(5-6), 267-274.

Lee, G. G., Lee, H. Y., Song, J., Kim, B., Kang, S., Lee, J., & Hwang, H. (2016). Automatic sentence stress feedback for non-native English learners. *Computer Speech & Language*, 41, 29-42.

Leon, P. R., & Martin, P. (1972). Applied linguistics and the teaching of intonation. *The Modern Language Journal*, *56*(3), 139-144.

Levis, J. M. (1999). Intonation in theory and practice, revisited. *TESOL Quarterly*, *33*(1), 37-63.

Levis, J. M. (2002). Reconsidering low-rising intonation in American English. *Applied Linguistics*, *23*(1), 56-82.

Levis, J. M. (2016). Research into practice: How research appears in pronunciation teaching materials. *Language Teaching*, *49*(3), 423-437.

Levis, J. M., Sonsaat, S., Link, S., & Barriuso, T. A. (2016). Native and nonnative teachers of L2 pronunciation: Effects on learner performance. In Brian Paltridge and Ahmar Mahboob (Eds.) *TESOL Quarterly*. Retrieved from http://onlinelibrary.wiley.com/doi/10.1002/tesq. 272/pdf.

Levis, J., & Pickering, L. (2004). Teaching intonation in discourse using speech visualization technology. *System*, *32*(4), 505-524.

Lieberman, P., & Michaels, S. B. (1962). Some aspects of fundamental frequency and envelope amplitude as related to the emotional content of speech. *The Journal of the Acoustical Society of America*, *34*(7), 922-927.

Liebert, B. (1971). *Linguistics and the new language teacher*. New York: MacMillan.

Lightbown, P.M., & Spada, N. (2006). *How languages are learned* (3rd ed.). Oxford: Oxford University.

Maastricht, L., Krahmer, E., & Swerts, M. (2016). Prominence patterns in a second language: Intonational transfer from Dutch to Spanish and vice versa. *Language Learning*, *66*(1), 124-158.

Marks, J. (2010). Intonation in the grammar of English. *ELT journal*, *64*(1), 101-102.

McKinnon, S. (2016). TBLT instructional effects on tonal alignment and pitch range in L2 Spanish imperatives versus declaratives. *Studies in Second Language Acquisition*, 1-31.

Mennen, I. (1998). Second language acquisition of intonation: The case of peak alignment. *Chicago linguistic society*, *34*(2), 327-341.

Mitrofanova, Y. (2012). Raising EFL students' awareness of English intonation functioning. *Language Awareness, 21*(3), 279-291.

Morais, J., Alegría, J., & Content, A. (1987). The relationships between segmental analysis and alphabetic literacy: An interactive view. *Cahiers de psychologie cognitive*, *7*(5), 415-438.

Morley, J. (1987). *Current perspectives on pronunciation. Practices anchored in theory*. In Morley Joan (Ed.), Washington, D.C.: TESOL. pp.121.

Morley, J. (1991). The pronunciation component in teaching English to speakers of other languages. *TESOL Quarterly*, *25*(3), 481-520.

Moyer, A. (2013). *Foreign accent: The phenomenon of non-native speech*. Cambridge: Cambridge.

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.

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.

Murphy, J. M. (2014). Intelligible, comprehensible, non-native models in ESL/EFL pronunciation teaching. *System*, 42, 258-269.

Narayanan, R., Liu, B., & Choudhary, A. (2009). Sentiment analysis of conditional sentences. In *Proceedings of the 2009 Conference on Empirical Methods in Natural Language Processing: 1,* (pp. 180-189). Association for Computational Linguistics.

Nicolosi, L., Harryman, E., Kresheck, J. (2004). *Juncture. Terminology of Communication Disorders*: Speech-Language-Hearing (5th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.

Nida, E. A. (1957). *Learning a foreign language: A handbook prepared especially for missionaries*. Published by Friendship Press for Committee on Missionary Personnel, Division of Overseas Ministries, National Council of the Churches of Christ in the USA.

Nolan, F. (2006). *Intonation*. In B. Arts, & A. McMahon (Eds.), Handbook of English linguistics (pp. 433–457). Oxford: Blackwell.

Nunnally, J. C. (1978). *Psychometric Theory* (2nd Ed.). New York: McGraw-Hill.

Palmer, F. R. (2001). *Mood and Modality*, (2nd ed.). Cambridge: Cambridge.

Paterno, A. (2003). *Handbook for oral readers of English as a second language*. Philippine: Rex Book Store.

Pennington, M. C. (1989). Teaching pronunciation from the top down. *RELC Journal*, *20*(1), 20-38.

Pennington, M. C. (1994). Recent research in L2 phonology: Implications for practice. In Joan Morley (Ed.). *Pronunciation pedagogy and theory: New views, new directions*, 92-108. Alexandria, VA: TESOL.

Pennington, M. C., & Ellis, N. C. (2000). Cantonese speakers' memory for English sentences with prosodic cues. *The Modern Language Journal*, *84*(3), 372-389.

Peoples J, Bailey G (2012). Humanity: An introduction to cultural anthropology. Belmont, CA: Wadsworth and Cengage Learning.

Picheny, M. A., Durlach, N. I., & Braida, L. D. (1986). Speaking clearly for the hard of hearing II acoustic characteristics of clear and conversational speech. *Journal of Speech, Language, and Hearing Research*, *29*(4), 434-446.

Pickering, L. (2002). Patterns of intonation in cross-cultural communication exchange structure in NSTA ITA classroom discourse. *Proceeding of the Seventh Annual Conference on Language Interaction and Culture,* University of California, Santa Barbara, 4, 1-17.

Pickering, L. (2012). *Suprasegmentals: Discourse Intonation*. In C. A. Chapelle (Ed.), The Encyclopedia of Applied Linguistics, (pp. 5437-5443). Hoboken, NJ: Wiley-Blackwell.

Pickering, L., & Baker, A. (2014). Suprasegmental measures of accentedness. In Levis, J. M. & Moyer, J. (Eds.), (pp. 75-96). *Social Influences in L2 Pronunciation.* Berlin: DeGruyter Mouton.

Pirt, G. (1990). Discourse intonation problems for non-native speakers. In M. Hewings (Ed.), *Papers in discourse intonation.* (pp. 145-155). Birmingham, England: University of Birmingham, English Language Research.

Reed, M., & Levis, J. (2015). *The handbook of English pronunciation*. Oxford: Wiley-Blackwell.

Reed, M., Michaud, C. (2015). Intonation in research and practice: The importance of metacognition. In M. Reed & J. Levis (Eds.) The Handbook of English Pronunciation (pp. 454-470). West Sussex, UK: John Wiley & Sons.

Richards, J. C., & Rodgers, T. S. (2014). *Approaches and methods in language teaching*. Cambridge: Cambridge.

Roach, P. (1983). *English phonetics and phonology*. Cambridge: Cambridge.

Roach, P. (1991) *English phonetics and phonology. A practical course*. (2nd ed.) Cambridge: Cambridge.

Roach, P. (2001). *Phonetics*. Oxford: Oxford.

Roach, P. (2006). *English phonetics and phonology: Practical course* (3rd ed.). Cambridge: Cambridge.

Roach, P. (2009). *English phonetics and phonology* (4th ed.). Cambridge: Cambridge.

Römer, U., O'Donnell, M. B., & Ellis, N. C. (2014). Second language learner knowledge of verb–argument constructions: Effects of language transfer and typology. *The Modern Language Journal*, *98*(4), 952-975.

Sacks, H., Schegloff, E. A., & Jefferson, G. (1974). A simplest systematics for the organization of turn-taking for conversation. *Language*, *50*(4), 696-735.

Saito, Y., & Saito, K. (2016). Differential effects of instruction on the development of second language comprehensibility, word stress, rhythm, and intonation: The case of inexperienced Japanese EFL learners. *Language Teaching Research*.

Scherer, K. R. (2003). Vocal communication of emotion: A review of research paradigms. *Speech communication*, *40*(1), 227-256.

Schmerling, S. F. (1976). *Aspects of English sentence stress*. Austin: University of Texas.

Seferoğlu, G. (2005). Improving students' pronunciation through accent reduction software. *British Journal of Educational Technology*, *36*(2), 303-316.

Shi, W. (2015). Types of Chinese negative transfer to English learning and the countermeasures. *Theory and Practice in Language Studies*, *5*(6), 1226-1232.

Sifakis, N. C., & Sougari, A. (2005). Pronunciation issues and EIL pedagogy in the periphery: A survey of Greek state school teachers' beliefs. *TESOL Quarterly*, *39*(3), 467-488.

Skandera, P., Burleigh, P. (2005). *A manual of English phonetics and phonology: twelve lessons with an integrated course in phonetic transcription*. Gulde: Tubingen.

Smakman, D. (2016). Pronunciation: Teach or ignore? Proceedings *Van Schools tot Scriptie II*, 61-65. Amsterdam: VU.

Spaai, W., & D. Hermes (1992). A Visual Display for the Teaching of Intonation. *CALICO Journal, 10*(3), 19-30.

Stenson, S., Downing, B., Smith, J., & Smith, K. (1992). The effectiveness of computer-assisted pronunciation teaching. *CALICO Journal 9*(4), 5-20.

Suzuki, H., Kiritani, S., & Imagawa, H. (1989). For Improvement of English Intonation Learning System. *Annual Bulletin RILP*, 23, 59-63.

Swan, M., & Walter, C. (2011). *Oxford English grammar course: Basic*. Oxford: Oxford.

Swerts, M., Geluykens, R., & Terken, J. (1992). Prosodic correlates of discourse units in spontaneous speech. In *Second International Conference on Spoken Language* Processing. Banff, Alberta, Canada October 12-16.

Szpyra-Kozłowska, J., Nowacka, M., Bąk, L., Chaber, I., & Święciński, R. (2003). Priorytety w nauczaniu fonetyki języka angielskiego. *Dydaktyka fonetyki języka obcego, zeszyt naukowy instytutu neofilologii państwowej wyższej szkoły zawodowej w Płocku*, 5, 211-223.

Tan, Ş. (2009). Misuses of KR-20 and Cronbach's alpha reliability coefficients. *Education and Science*, *34*(152), 101-112.

Tanner, M. W., & Landon, M. 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.

Tarone, E. E. (1973). Aspects of intonation in Black English. *American Speech*, *48*(1/2), 29-36.

Taylor, D. S. (1993). Intonation and accent in English: What teachers need to know. *IRAL-International Review of Applied Linguistics in Language Teaching*, *31*(1), 1-22.

Tench, P. (2005). Teaching intonation. *Speak Out*, 34, 45-53.

Tench, P. (2014). A systemic functional model of the intonation of clauses in English. *Readings in English Phonetics and Phonology*, 1, 261.

Tench, P. (2015). *The intonation systems of English*. London: Bloomsbury.

Thompson, S. (1995). Teaching intonation on questions. *ELT Journal*, *49*(3), 235-243.

Towell, R., Hawkins, R., & Bazergui, N. (1996). The development of fluency in advanced learners of French. *Applied Linguistics*, *17*(1), 84-119.

Trofimovich, P., & Baker, W. (2006). Learning second language suprasegmentals: Effect of L2 experience on prosody and fluency characteristics of L2 speech. *Studies in second language acquisition*, *28*(01), 1-30.

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.

Underhill, A. (1994). *Sound Foundations: Living Phonology.* Oxford: Heinemann.

Underhill, A. (2005). *Sound Foundations: Learning and Teaching Intonation*, (2nd Ed.). Oxford: Macmillan.

Venkatagiri, H. S., & Levis, J. M. (2007). Phonological awareness and speech comprehensibility: An exploratory study. *Language awareness*, *16*(4), 263-277.

Wang, X.,& Munro, M. J. (2004). Computer-based training for learning English vowel contrasts. *System*, *32*(4), 539-552.

Wells, J. C. (2006). *English intonation PB and Audio CD: An introduction*. Cambridge: Cambridge.

Wells, J. C. (2014). *English intonation: An introduction*. Cambridge: Cambridge.

Weltens, B., & De Bot, K. (1984). Visual feedback of intonation II: Feedback delay and quality of feedback. *Language and Speech*, *27*(1), 79-88.

Wennerstrom, A. (1994). Intonational meaning in English discourse: A study of non-native speakers. *Applied Linguistics*, *15*(4), 399-420.

Wennerstrom, A. (1998). Intonation as cohesion in academic discourse. *Studies in Second Language Acquisition*, *20*(01), 1-25.

Wennerstrom, A. (2001). *The music of everyday speech: Prosody and discourse analysis*. Oxford: Oxford.

Wichmann, A. (2014). *Intonation in text and discourse: Beginnings, middles and ends*. New York: Routledge.

Wong, R. (1994). Pronunciation myths and facts. In T. Kral (Ed.), Teacher development: Making the right moves (pp. 115–119). Washington, DC: United States Information Agency.

Yedomakha, I. P. (2013). Intonation pedagogy for non-native EFL teacher-trainees: Needs and problems. Вісник Чернігівського національного педагогічного університету, 111, 86-88.

Zaefferer, D. (1991). Conditionals and unconditionals: Cross-linguistic and logical aspects. In D. Zaefferer (Ed.), *Semantic universals and universal semantics*, (pp. 210-236). Berlin: Foris.

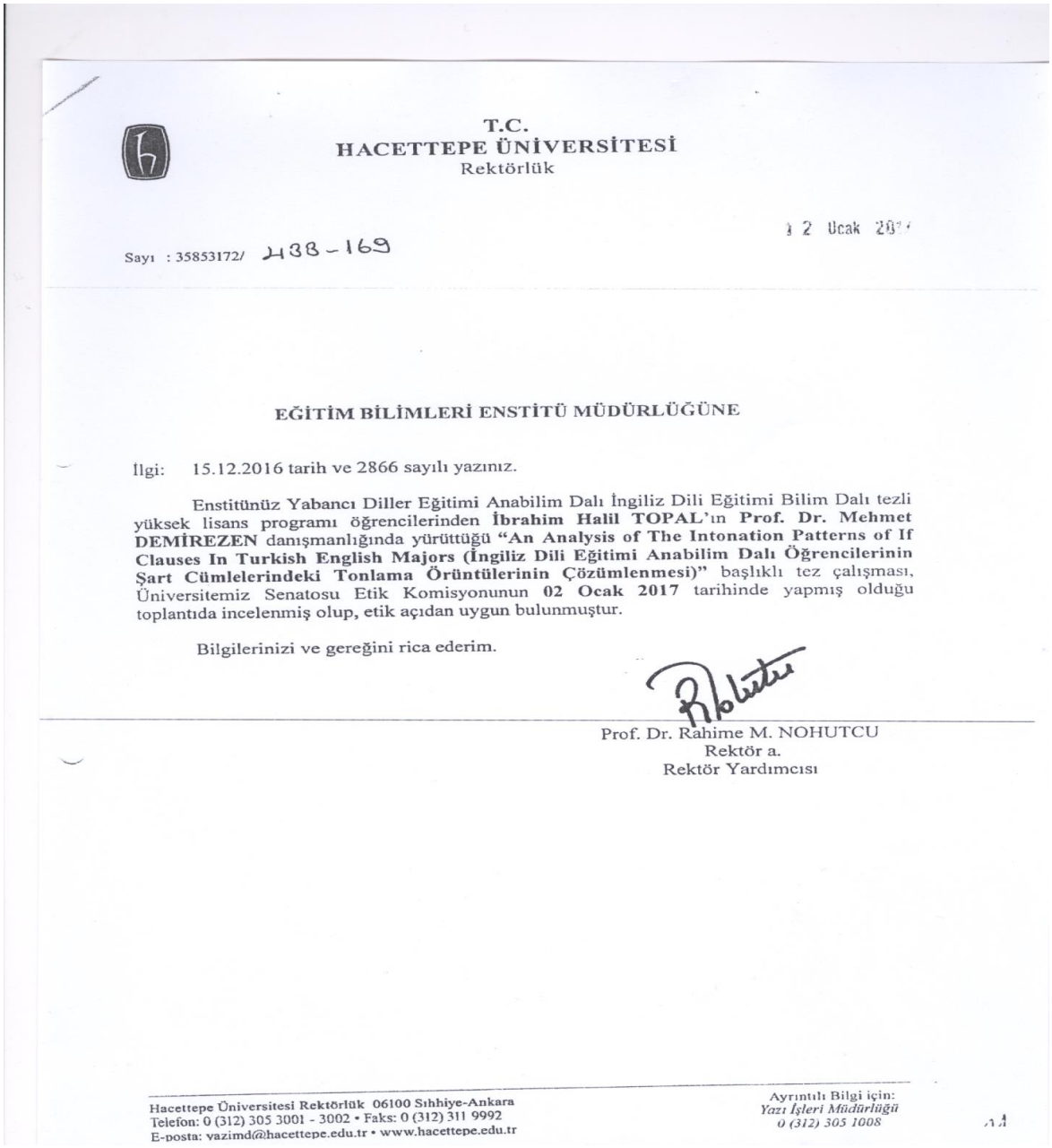
Zhang, Y. (2013). Second language acquisition of Chinese grammatical morphemes: A processability perspective. (PhD Dissertation). Retrieved from http://hdl.handle.net/1885/9804.

Ziegeler, D. (2000). What almost can reveal about counterfactual inferences. *Journal of Pragmatics*, *32*(12), 1743-1776.

Zsiga, E.C. (2013). *The sounds of English: An introduction to phonetics and phonology*. Oxford: Wiley-Blackwell.

# APPENDICES

## APPENDIX 1. ETHICS COMMITTEE APPROVAL NOTIFICATION



T.C.
HACETTEPE ÜNİVERSİTESİ
Rektörlük

Sayı : 35853172/ 438-169

12 Ocak 20[illegible]

EĞİTİM BİLİMLERİ ENSTİTÜ MÜDÜRLÜĞÜNE

İlgi: 15.12.2016 tarih ve 2866 sayılı yazınız.

Enstitünüz Yabancı Diller Eğitimi Anabilim Dalı İngiliz Dili Eğitimi Bilim Dalı tezli yüksek lisans programı öğrencilerinden **İbrahim Halil TOPAL**'ın **Prof. Dr. Mehmet DEMİREZEN** danışmanlığında yürüttüğü **"An Analysis of The Intonation Patterns of If Clauses In Turkish English Majors (İngiliz Dili Eğitimi Anabilim Dalı Öğrencilerinin Şart Cümlelerindeki Tonlama Örüntülerinin Çözümlenmesi)"** başlıklı tez çalışması, Üniversitemiz Senatosu Etik Komisyonunun **02 Ocak 2017** tarihinde yapmış olduğu toplantıda incelenmiş olup, etik açıdan uygun bulunmuştur.

Bilgilerinizi ve gereğini rica ederim.

Prof. Dr. Rahime M. NOHUTCU
Rektör a.
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## APPENDIX 2. PRIMARY DATA INSTRUMENT: CORPUS OF THE STUDY

**1.** If he resigns, it will be an admission of guilt.
**2.** If I start teaching again, I'll be exhausted after a year.
**3.** If Julie doesn't get her act together, she'll never graduate.
**4.** If my kids go to a friend's house, they'll call me.
**5.** If the crops fail again, it will be a calamity for the country.
**6.** If you break the rules, you will be punished accordingly.
**7.** It's hard to teach students if they lack interest in the subject.
**8.** Kim will be disappointed if she figures it out.
**9.** My wife will kill me if I don't get home soon.
**10.** We won't get anything done if you two don't stop carrying on.
**11.** You'll be missing the boat if you don't buy these shares now.
**12.** You'll enjoy it if you read it.
**13.** If anything happened to the kids, I wouldn't forgive myself.
**14.** If I told them my real feelings, they would just laugh at me.
**15.** If my car had one, life would be so much easier.
**16.** If she slept earlier, she wouldn't feel so tired.
**17.** If they needed a computer, they'd buy one.
**18.** If they were at the park at that time, they wouldn't know what to do.
**19.** I wouldn't fly with that airline if I were you.
**20.** I'd get one tomorrow if I had enough money.
**21.** I'd travel more if my husband weren't afraid of flying.
**22.** Investigators would be remiss if they didn't pursue every possible lead.
**23.** It would mean a lot to your father if you offered to help.
**24.** It'd be easier if we both did it.
**25.** If I hadn't read the safety information, I wouldn't have acted so quickly.
**26.** If I'd known his number, I would have called him.
**27.** If I'd known it was you on the phone, I would have answered it.
**28.** If I'd left home earlier, I wouldn't have missed the train.
**29.** If I'd stayed in the building longer, I would have died.
**30.** If you'd asked me out to dinner, I would have said yes.
**31.** I definitely would have remembered if you'd told me.
**32.** I would have been terrified if I'd been in that situation.
**33.** I would have bought the dress if it hadn't been so expensive.
**34.** I would have organized the party for you if I'd known you were coming.
**35.** I wouldn't have felt so tired this morning if I'd gone to bed earlier.
**36.** The dog wouldn't have attacked if you hadn't teased him.

## APPENDIX 3. PRE-TEST / POST-TEST SAMPLE

**SECTION 1**
**Which words in sentences 1-12 are primarily stressed? Mark the correct alternative to each question.**

**1.** If I start teaching again, I'll be exhausted after a year.
- **A.** start – year
- **B.** I – after
- **C.** teaching – exhausted
- **D.** again – I'll
- **E.** start – be

**2.** If you break the rules, you will be punished accordingly.
- **A.** you – be
- **B.** break – will
- **C.** the – punished
- **D.** rules – accordingly
- **E.** break – you

**3.** My wife will kill me if I don't get home soon.
- **A.** my – I
- **B.** wife – me
- **C.** kill
- **D.** will - home
- **E.** wife - soon

**4.** It's hard to teach students if they lack interest in the subject.
- **A.** teach – interest
- **B.** students – subject
- **C.** hard – they
- **D.** lack – the
- **E.** hard – subject

**5.** If anything happened to the kids, I'd never forgive myself.
- **A.** kids
- **B.** anything – kids
- **C.** happened – myself
- **D.** If – never
- **E.** kids – forgive

**6.** If I told them my real feelings, they would just laugh at me.
- **A.** real – they
- **B.** them – just
- **C.** my – laugh
- **D.** real – laugh
- **E.** feelings – me

**7.** Investigators would be remiss if they didn't pursue every possible lead.
- **A.** remiss – every
- **B.** investigators – pursue
- **C.** would – possible
- **D.** be – lead
- **E.** investigators – every

**8.** It would mean a lot to your father if you offered to help.
- **A.** lot
- **B.** mean – help
- **C.** your – you
- **D.** father – offered
- **E.** lot – help

**9.** If I hadn't read the safety information, I wouldn't have acted so quickly.
- **A.** safety – I
- **B.** read – have
- **C.** the – so
- **D.** safety – quickly
- **E.** information – I

**10.** If I'd known it was you on the phone, I would have answered it.
- **A.** known – answered
- **B.** you – answered
- **C.** it – would
- **D.** was – it
- **E.** I'd - have

**11.** I would have organized the party for you if I'd known you were coming.
- **A.** have – coming
- **B.** organized – you
- **C.** party – coming
- **D.** for – were
- **E.** party – known

**12.** I would have bought the dress if it hadn't been so expensive.
- **A.** bought – expensive
- **B.** have – been
- **C.** dress – so
- **D.** I – it
- **E.** bought

**SECTION 2**
**What is the correct <u>pitch phonemes</u> in sentences 13 – 24? Mark the correct alternative to each question.**

**13.** If he resigns, it will be an admission of guilt.
- **A.** /2 3 2/ - /2 3 1/
- **B.** /2 3 3/ - /2 3 2/
- **C.** /3 2 1/ - /3 2 3/
- **D.** /3 1 2/ - /3 1 2/
- **E.** /2 1 3/ - /2 1 2/

**14.** If Julie doesn't get her act together, she'll never graduate.
- **A.** /2 3 1/ - /2 3 2/
- **B.** /2 3 3/ - /2 3 1/
- **C.** /3 2 3/ - /2 2 3/
- **D.** /2 3 2/ - /2 3 1/
- **E.** /2 1 3/ - /2 1 2/

**15.** You'll be missing the boat if you don't buy these shares now.
- **A.** /3 3 1/ - /3 2 1/
- **B.** /3 3 2/ - /3 3 2/
- **C.** /2 3 1/
- **D.** /3 3 2/ - /2 2 1/
- **E.** /3 1 3/ - /2 2 3/

**16.** We won't get anything done if you two don't stop carrying on.
- **A.** /2 3 3/ - /2 2 3/
- **B.** /2 3 2/ - /2 3 1/
- **C.** /3 2 1/ - /3 2 3/
- **D.** /3 1 2/ - /3 1 2/
- **E.** /2 1 3/ - /2 2 1/

**17.** If my car had one, life would be so much easier.
- **A.** /2 3 1/ - /2 3 2/
- **B.** /2 3 3/ - /2 3 1/
- **C.** /3 2 3/ - /2 2 3/
- **D.** /2 3 2/ - /2 2 1/
- **E.** /2 3 2/ - /2 3 1/

**18.** If they needed a computer, they'd buy one.
- **A.** /3 3 1/ - /3 2 1/
- **B.** /3 3 2/ - /3 3 2/
- **C.** /2 3 2/ - /2 3 1/
- **D.** /3 3 2/ - /2 2 1/
- **E.** /3 1 3/ - /2 2 3/

**19.** I'd travel more if my husband weren't afraid of flying.
- **A.** /2 3 1/ - /2 3 2/
- **B.** /2 3 3/ - /2 3 2/
- **C.** /3 2 1/ - /3 2 3/
- **D.** /3 1 2/ - /3 1 2/
- **E.** /2 1 3/ - /2 1 2/

**20.** I'd get one tomorrow if I had enough money.
- **A.** /2 3 3/ - /2 2 3/
- **B.** /2 3 1/
- **C.** /3 2 1/ - /3 2 3/
- **D.** /3 1 2/ - /3 1 2/
- **E.** /2 1 3/ - /2 2 1/

**21.** If I'd known his number, I would have called him.
- **A.** /2 3 1/ - /2 3 2/
- **B.** /2 3 3/ - /2 3 1/
- **C.** /3 2 3/ - /2 2 3/
- **D.** /2 3 2/ - /2 3 1/
- **E.** /2 1 3/ - /2 1 2/

**22.** If you'd asked me out to dinner, I'd have said yes.
- **A.** /2 3 3/ - /2 2 3/
- **B.** /2 3 2/ - /2 3 1/
- **C.** /3 2 1/ - /3 2 3/
- **D.** /3 1 2/ - /3 1 2/
- **E.** /2 1 3/ - /2 2 1/

**23.** I wouldn't have felt so tired this morning if I'd gone to bed earlier.
- **A.** /2 3 1/ - /2 3 2/
- **B.** /2 3 3/ - /2 3 1/
- **C.** /3 2 3/ - /2 2 3/
- **D.** /2 3 2/ - /2 2 1/
- **E.** /2 3 1/ - /2 3 1/

**24.** I definitely would have remembered if you'd told me.
- **A.** /2 3 1/
- **B.** /2 3 3/ - /2 3 2/
- **C.** /3 2 1/ - /3 2 3/
- **D.** /3 1 2/ - /3 1 2/
- **E.** /2 1 3/ - /2 1 2/

**SECTION 3**
**What is the correct <u>juncture phonemes</u> in the sentences 25 – 36? Mark the correct alternative to each question.**

**25.** If my kids go to a friend's house, they'll call me.
- **A.** **/→/ - /↑/**
- **B.** **/↓/ - /→/**
- **C.** **/↑/ - /→/**
- **D.** **/→/ - /↓/**
- **E.** **/↑/ - /↓/**

**26.** If the crops fail again, it will be a calamity for the country.
- **A.** **/↑/ - /↓/**
- **B.** **/→/ - /↑/**
- **C.** **/→/ - /↓/**
- **D.** **/↓/ - /→/**
- **E.** **/↑/ - /→/**

**27.** You'll enjoy it if you read it.
- **A.** **/↓/**
- **B.** **/↑/ - /↓/**
- **C.** **/→/ - /↑/**
- **D.** **/↑/ - /→/**
- **E.** **/↓/ - /→/**

**28.** Kim will be disappointed if she figures it out.
- **A.** **/↑/ - /→/**
- **B.** **/→/ - /↑/**
- **C.** **/→/ - /↓/**
- **D.** **/↓/ - /→/**
- **E.** **/↑/ - /↓/**

**29.** If she slept earlier, she wouldn't be so tired.
- **A.** **/↑/ - /→/**
- **B.** **/→/ - /↑/**
- **C.** **/→/ - /↓/**
- **D.** **/↓/ - /→/**
- **E.** **/↑/ - /↓/**

**30.** If they were at the park at that time, they wouldn't know what to do.
- **A.** **/→/ - /↓/**
- **B.** **/↑/ - /↓/**
- **C.** **/→/ - /↑/**
- **D.** **/↑/ - /→/**
- **E.** **/↓/ - /→/**

**31.** It'd be easier if we both did it.

**A.** /↓/
**B.** /→/ - /↑/
**C.** /→/ - /↓/
**D.** /↓/ - /→/
**E.** /↑/ - /→/

**32.** I wouldn't fly with that airline if I were you.

**A.** /↑/ - /↓/
**B.** /→/ - /↑/
**C.** /→/ - /↓/
**D.** /↓/ - /→/
**E.** /↑/ - /→/

**33.** If I 'd stayed in the building longer, I would have died.

**A.** /↑/ - /→/
**B.** /→/ - /↑/
**C.** /→/ - /↓/
**D.** /↓/ - /→/
**E.** /↑/ - /↓/

**34.** If I'd left home earlier, I wouldn't have missed the train.

**A.** /→/ - /↑/
**B.** /↓/ - /→/
**C.** /↑/ - /→/
**D.** /→/ - /↓/
**E.** /↑/ - /↓/

**35.** I would have been terrified if I'd been in that situation.

**A.** /→/ - /↓/
**B.** /↑/ - /↓/
**C.** /→/ - /↑/
**D.** /↑/ - /→/
**E.** /↓/ - /→/

**36.** The dog wouldn't have attacked if you hadn't teased him.

**A.** /→/ - /↓/
**B.** /↓/
**C.** /→/ - /↑/
**D.** /↑/ - /→/
**E.** /↓/ - /→/

## APPENDIX 4. EXERCISES FOR TREATMENT SESSIONS

### TYPE 1 – CONDITIONAL SENTENCES
### RECOGNITION OF JUNCTURE PHONEMES

**You will hear the following conditional sentences. Identify the type of juncture phonemes in each sentence and mark the correct alternative.**

**1.** If he resigns, it will be an admission of guilt.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /→/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /↑/ - /↑/

**2.** If I start teaching again, I'll be exhausted after a year.
- **A.** /→/ - /→/
- **B.** /↑/ - /→/
- **C.** /→/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /↑/ - /↓/

**3.** If Julie doesn't get her act together, she'll never graduate.
- **A.** /↑/ - /→/
- **B.** /↑/ - /↓/
- **C.** /→/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /↓/ - /↑/

**4.** If my kids go to a friend's house, they'll call me.
- **A.** /→/ - /↑/
- **B.** /↑/ - /↓/
- **C.** /↓/ - /↓/
- **D.** /→/ - /↓/
- **E.** /↑/ - /↑/

**5.** If the crops fail again, it will be a calamity for the country.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /→/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /→/ - /↑/

**6.** If you break the rules, you will be punished accordingly.
- **A.** /→/ - /↓/
- **B.** /↓/ - /→/
- **C.** /↑/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /↑/ - /→/

**7.** It’s hard to teach students if they lack interest in the subject.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /↑/ - /↑/
- **D.** /↓/ - /→/
- **E.** /→/ - /↓/

**8.** Kim will be disappointed if she figures it out.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /↓/ - /↓/
- **D.** /→/ - /↓/
- **E.** /↑/ - /↑/

**9.** My wife will kill me if I don’t get home soon.
- **A.** /→/ - /→/
- **B.** /↓/
- **C.** /→/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /↑/ - /↑/

**10.** We won’t get anything done if you two don’t stop carrying on.
- **A.** /→/ - /↓/
- **B.** /→/ - /→/
- **C.** /↑/ - /↑/
- **D.** /↑/ - /↓/
- **E.** /↓/ - /↓/

**11.** You’ll be missing the boat if you don’t buy these shares now.
- **A.** /→/ - /→/
- **B.** /↑/ - /↑/
- **C.** /↓/
- **D.** /→/ - /↓/
- **E.** /↓/ - /↓/

**12.** You’ll enjoy it if you read it.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /↓/
- **D.** /↑/ - /↑/
- **E.** /→/ - /↓/

**TYPE 1 – CONDITIONAL SENTENCES**
**RECOGNITION OF PITCH PHONEMES**

**You will hear the following conditional sentences. Identify the correct pitch phonemes in each sentence and mark the correct alternative.**

**1.** If he resigns, it will be an admission of guilt.
**A.** /2 3 3 / - /2 3 3 /
**B.** /2 2 1 / - /3 1 2 /
**C.** /2 3 2 / - /2 3 1 /
**D.** /2 3 1 / - /2 3 1 /
**E.** /2 3 3 / - /2 3 3 /

**2.** If I start teaching again, I'll be exhausted after a year.
**A.** /2 3 3 / - /2 3 3 /
**B.** /2 3 3 / - /2 3 3 /
**C.** /2 3 1 / - /2 3 1 /
**D.** /2 2 1 / - /3 1 2 /
**E.** /2 3 2 / - /2 3 1 /

**3.** If Julie doesn't get her act together, she'll never graduate.
**A.** /2 3 2 / - /2 3 1 /
**B.** /2 2 1 / - /3 1 2 /
**C.** /2 3 1 / - /2 3 1 /
**D.** /2 3 3 / - /2 3 3 /
**E.** /2 3 3 / - /2 3 3 /

**4.** If my kids go to a friend's house, they'll call me.
**A.** /2 3 3 / - /2 3 3 /
**B.** /2 3 1 / - /2 3 1 /
**C.** /2 2 1 / - /3 1 2 /
**D.** /2 3 2 / - /2 3 1 /
**E.** /2 3 3 / - /2 3 3 /

**5.** If the crops fail again, it will be a calamity for the country.
**A.** /2 2 1 / - /3 1 2 /
**B.** /2 3 3 / - /2 3 3 /
**C.** /2 3 2 / - /2 3 1 /
**D.** /2 3 1 / - /2 3 1 /
**E.** /2 3 3 / - /2 3 3 /

**6.** If you break the rules, you will be punished accordingly.
**A.** /2 3 2 / - /2 3 1 /
**B.** /2 2 1 / - /3 1 2 /
**C.** /2 3 1 / - /2 3 1 /
**D.** /2 3 3 / - /2 3 3 /
**E.** /2 3 3 / - /2 3 3 /

**7.** It’s hard to teach students if they lack interest in the subject.
**A.** /2 2 1 / - /3 1 2 /
**B.** /2 3 1 / - /2 3 1 /
**C.** /2 3 3 / - /2 3 3 /
**D.** /2 3 2 / - /2 3 1 /
**E.** /2 3 3 / - /2 3 3 /

**8.** Kim will be disappointed if she figures it out.
**A.** /2 3 1 / - /2 3 1 /
**B.** /2 3 3 / - /2 3 1 /
**C.** /2 3 2 / - /2 3 1 /
**D.** /2 2 3 / - /2 3 3 /
**E.** /2 3 3 / - /2 3 3 /

**9.** My wife will kill me if I don’t get home soon.
**A.** /2 2 1 / - /3 1 2 /
**B.** /2 3 1 /
**C.** /2 3 1 / - /2 3 1 /
**D.** /2 3 3 / - /2 3 3 /
**E.** /2 3 3 / - /2 3 3 /

**10.** We won’t get anything done if you two don’t stop carrying on.
**A.** /2 2 1 / - /3 1 2 /
**B.** /2 3 1 / - /2 3 1 /
**C.** /2 3 3 / - /2 3 3 /
**D.** /2 3 2 / - /2 3 1 /
**E.** /2 3 3 / - /2 3 3 /

**11.** You’ll be missing the boat if you don’t buy these shares now.
**A.** /2 3 1 / - /2 3 1 /
**B.** /2 2 1 / - /3 1 2 /
**C.** /2 3 1 /
**D.** /2 3 3 / - /2 3 3 /
**E.** /2 3 3 / - /2 3 3 /

**12.** You’ll enjoy it if you read it.
**A.** /2 2 1 / - /3 1 2 /
**B.** /2 3 1 /
**C.** /2 3 1 / - /2 3 1 /
**D.** /2 3 3 / - /2 3 3 /
**E.** /2 3 3 / - /2 3 3 /

## TYPE 1 – CONDITIONAL SENTENCES
## RECOGNITION OF PRIMARY STRESS

**You will hear the following conditional sentences. Identify the words with primary stress in each sentence and mark the correct answer.**

**1.** If I start teaching again, I'll be exhausted after a year.
- **A.** again – exhausted
- **B.** start – year
- **C.** teaching – exhausted
- **D.** I – be
- **E.** teaching – after

**2.** If my kids go to a friend's house, they'll call me.
- **A.** my – call
- **B.** kids – they'll
- **C.** go – me
- **D.** friend's – house
- **E.** kids – friend's

**3.** If he resigns, it will be an admission of guilt.
- **A.** he – be
- **B.** resigns – admission
- **C.** if – guilt
- **D.** he – will
- **E.** resigns – guilt

**4.** If you break the rules, you will be punished accordingly.
- **A.** you – punished
- **B.** break – be
- **C.** rules – punished
- **D.** you – will
- **E.** rules – accordingly

**5.** If the crops fail again, it will be a calamity for the country.
- **A.** the – be
- **B.** crops – calamity
- **C.** fail – calamity
- **D.** again – for
- **E.** crops – country

**6.** If Julie doesn't get her act together, she'll never graduate.
- **A.** Julie – never
- **B.** get – graduate
- **C.** act – she'll
- **D.** if – together
- **E.** act – never

**7.** It’s hard to teach students if they lack interest in the subject.
- **A.** hard – subject
- **B.** teach – lack
- **C.** students – they
- **D.** It’s – the
- **E.** hard – interest

**8.** Kim will be disappointed if she figures it out.
- **A.** will - figures
- **B.** disappointed – figures
- **C.** be - she
- **D.** disappointed - out
- **E.** Kim – she

**9.** My wife will kill me if I don’t get home soon.
- **A.** wife – don’t
- **B.** kill
- **C.** me – home
- **D.** kill – soon
- **E.** my – get

**10.** We won’t get anything done if you two don’t stop carrying on.
- **A.** we – anything
- **B.** won’t – carrying
- **C.** done – stop
- **D.** get – don’t
- **E.** we – you

**11.** You’ll be missing the boat if you don’t buy these shares now.
- **A.** missing – impress
- **B.** boat – now
- **C.** You’ll – don’t
- **D.** the – these
- **E.** boat

**12.** You’ll enjoy it if you read it.
- **A.** You’ll – you
- **B.** enjoy – it
- **C.** it – read
- **D.** enjoy
- **E.** if – you

## TYPE 2 – CONDITIONAL SENTENCES
## RECOGNITION OF JUNCTURE PHONEMES

**You will hear the following sentences. Identify the type of juncture phonemes in each sentence and mark the correct alternative.**

**1.** If anything happened to the kids, I'd never forgive myself.
- **A.** /↓/
- **B.** /↑/ - /↓/
- **C.** /→/ - /→/
- **D.** /↑/- /↓/
- **E.** /↑/ - /↓/

**2.** If I told them my real feelings, they would just laugh at me.
- **A.** /→/ - /→/
- **B.** /↑/ - /↑/
- **C.** /↑/ - /↓/
- **D.** /→/ - /↓/
- **E.** /↓/ - /↓/

**3.** If my car had one, life would be so much easier.
- **A.** /→/ - /→/
- **B.** /→/ - /↓/
- **C.** /↑/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /↑/ - /↑/

**4.** If she slept earlier, she wouldn't feel so tired.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /→/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /↑/ - /↑/

**5.** If they needed a computer, they'd buy one.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /↓/ - /↓/
- **D.** /→/ - /↓/
- **E.** /↑/ - /↑/

**6.** If they were at the park at that time, they wouldn't know what to do.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /↑/ - /↑/
- **D.** /↓/ - /→/
- **E.** /→/ - /↓/

**7.** I wouldn't fly with that airline if I were you.
**A.** /→/ - /↓/
**B.** /↓/ - /→/
**C.** /↑/ - /↓/
**D.** /↓/ - /↓/
**E.** /↑/ - /→/

**8.** I'd get one tomorrow if I had enough money.
**A.** /→/ - /→/
**B.** /↓/
**C.** /↑/ - /↓/
**D.** /↓/ - /→/
**E.** /↑/ - /↑/

**9.** I'd travel more if my husband weren't afraid of flying.
**A.** /→/ - /→/
**B.** /↑/ - /↓/
**C.** /→/ - /↓/
**D.** /↓/ - /↓/
**E.** /→/ - /↑/

**10.** Investigators would be remiss if they didn't pursue every possible lead.
**A.** /→/ - /↑/
**B.** /↑/ - /↓/
**C.** /↓/ - /↓/
**D.** /→/ - /↓/
**E.** /↑/ - /↑/

**11.** It would mean a lot to your father if you offered to help.
**A.** /→/ - /→/
**B.** /↑/ - /↓/
**C.** /↓/
**D.** /↓/ - /↓/
**E.** /→/ - /↑/

**12.** It'd be easier if we both did it.
**A.** /→/ - /↑/
**B.** /↑/ - /↓/
**C.** /↓/ - /↓/
**D.** /↓/
**E.** /↑/ - /↑/

**TYPE 2 – CONDITIONAL SENTENCES**
**RECOGNITION OF PITCH PHONEMES**

**You will hear the following sentences. Identify the pitch phonemes in each sentence and mark the correct alternative.**

**1.** If anything happened to the kids, I wouldn't forgive myself.
**A.** /2 3 3 / - /2 3 2/
**B.** /3 2 1/ - /3 1 2/
**C.** /2 3 1 / - /2 3 1/
**D.** /2 3 1/
**E.** /2 3 1 / - /2 3 1/

**2.** If I told them my real feelings, they would just laugh at me.
**A.** /2 3 3 / - /2 3 2/
**B.** /2 3 1 / - /2 3 1/
**C.** /2 3 2 / - /2 3 1/
**D.** /2 3 1/ - /3 1 2/
**E.** /2 3 1 / - /2 3 3/

**3.** If my car had one, life would be so much easier.
**A.** /3 2 1/ - /3 1 2/
**B.** /2 3 2 / - /2 3 1/
**C.** /2 3 1 / - /2 3 1/
**D.** /2 3 3 / - /2 3 2/
**E.** /2 3 1 / - /2 3 1/

**4.** If she slept earlier, she wouldn't feel so tired.
**A.** /2 3 1 / - /2 3 1/
**B.** /2 3 3 / - /2 3 2/
**C.** /3 3 1 / - /2 3 1/
**D.** /2 2 1/ - /3 1 2/
**E.** /2 3 2 / - /2 3 1/

**5.** If they needed a computer, they'd buy one.
**A.** /2 2 1/ - /3 1 2/
**B.** /2 3 1 / - /2 3 1/
**C.** /3 3 3 / - /2 3 2/
**D.** /2 3 2 / - /2 3 1/
**E.** /2 3 1 / - /2 3 1/

**6.** If they were at the park at that time, they wouldn't know what to do.
**A.** /2 3 2 / - /2 3 1/
**B.** /2 2 1/ - /3 1 2/
**C.** /2 3 1 / - /2 3 1/
**D.** /2 3 3 / - /2 3 2/
**E.** /3 3 1 / - /2 3 1/

**7.** I wouldn't fly with that airline if I were you.
- **A.** /33 2 / - /2 3 1/
- **B.** /2 2 1/ - /3 1 2/
- **C.** /2 3 2 / - /2 3 1/
- **D.** /2 3 3 / - /2 3 2/
- **E.** /2 3 1 / - /2 3 1/

**8.** I'd get one tomorrow if I had enough money.
- **A.** /2 3 1/
- **B.** /2 2 1/ - /3 1 2/
- **C.** /3 3 1 / - /2 3 1/
- **D.** /2 3 3 / - /2 3 2/
- **E.** /2 3 1 / - /2 3 1/

**9.** I'd travel more if my husband weren't afraid of flying.
- **A.** /2 3 1 / - /2 3 1/
- **B.** /2 2 1/ - /3 1 2/
- **C.** /3 3 1 / - /2 3 1/
- **D.** /2 3 3 / - /2 3 2/
- **E.** /2 3 2 / - /2 3 1/

**10.** Investigators would be remiss if they didn't pursue every possible lead.
- **A.** /2 2 1/ - /3 1 2/
- **B.** /2 3 1 / - /2 3 1/
- **C.** /2 3 2 / - /2 3 1/
- **D.** /2 3 3 / - /2 3 2/
- **E.** /3 3 1 / - /2 3 1/

**11.** It would mean a lot to your father if you offered to help.
- **A.** /2 3 1 / - /2 3 1/
- **B.** /2 2 1/ - /3 1 2/
- **C.** /3 3 2 / - /2 3 1/
- **D.** /2 3 1/
- **E.** /2 3 1 / - /2 3 1/

**12.** It'd be easier if we both did it.
- **A.** /2 2 1/ - /3 1 2/
- **B.** /2 3 1/
- **C.** /3 3 1 / - /2 3 1/
- **D.** /2 3 3 / - /2 3 2/
- **E.** /2 3 1 / - /2 3 1/

**TYPE 2 – CONDITIONAL SENTENCES**
**RECOGNITION OF PRIMARY STRESS**

**You will hear the following sentences. Identify the words with primary stress in each sentence and mark the correct alternative.**

**1.** If anything happened to the kids, I'd never forgive myself.
- **A.** anything – happened
- **B.** kids
- **C.** the – never
- **D.** kids– forgive
- **E.** happened – myself

**2.** If I told them my real feelings, they would just laugh at me.
- **A.** told– just
- **B.** them – me
- **C.** my – laugh
- **D.** real – laugh
- **E.** feelings – they

**3.** If my car had one, life would be so much easier.
- **A.** my – life
- **B.** had – so
- **C.** car – much
- **D.** one – be
- **E.** car – easier

**4.** If she slept earlier, she wouldn't feel so tired.
- **A.** slept – feel
- **B.** she – so
- **C.** earlier – feel
- **D.** earlier – tired
- **E.** if – wouldn't

**5.** If they needed a computer, they'd buy one.
- **A.** If – they'd
- **B.** needed – buy
- **C.** they – computer
- **D.** needed – one
- **E.** computer – they'd

**6.** If they were at the park at that time, they wouldn't know what to do.
- **A.** time – know
- **B.** they – what
- **C.** were – do
- **D.** that – wouldn't
- **E.** park – know

**7.** I wouldn’t fly with that airline if I were you.
- **A.** I – if
- **B.** fly – airline
- **C.** with – I
- **D.** wouldn’t – were
- **E.** airline – you

**8.** I’d get one tomorrow if I had enough money.
- **A.** get – if
- **B.** one – money
- **C.** tomorrow
- **D.** I’d – I
- **E.** tomorrow – enough

**9.** I’d travel more if my husband weren’t afraid of flying.
- **A.** I’d – afraid
- **B.** travel – husband
- **C.** more – husband
- **D.** if – flying
- **E.** husband – weren’t

**10.** Investigators would be remiss if they didn’t pursue every possible lead.
- **A.** investigators – remiss
- **B.** be – pursue
- **C.** investigators – possible
- **D.** remiss – every
- **E.** would – lead

**11.** It would mean a lot to your father if you offered to help.
- **A.** mean – father
- **B.** lot –
- **C.** your – help
- **D.** lot – you
- **E.** father – offered

**12.** It’d be easier if we both did it.
- **A.** It’d – did
- **B.** be – it
- **C.** both
- **D.** if – we
- **E.** easier – did

## TYPE 3 – CONDITIONAL SENTENCES
## RECOGNITION OF JUNCTURE PHONEMES

**You will hear the following sentences. Identify the type of juncture phonemes in each sentence and mark the correct alternative.**

**1.** If I hadn't read the safety information, I wouldn't have acted so quickly.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /→/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /↑/ - /↑/

**2.** If I'd known it was you on the phone, I would have answered it.
- **A.** /↓/ - /→/
- **B.** /↑/ - /↓/
- **C.** /→/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /↑/ - /↑/

**3.** If I'd known his number, I would have called him.
- **A.** /→/ -/↓/
- **B.** /↑/ - /↓/
- **C.** /→/ - /→/
- **D.** /↑/- /↓/
- **E.** /↑/ - /↓/

**4.** If I'd stayed in the building longer, I would have died.
- **A.** /→/ -/↓/
- **B.** /↑/ - /↓/
- **C.** /→/ - /→/
- **D.** /↑/- /↓/
- **E.** /↑/ - /↓/

**5.** If you'd asked me out to dinner, I'd have said yes.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /→/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /→/ - /↑/

**6.** If I'd left home earlier, I wouldn't have missed the train.
- **A.** /→/ - /↓/
- **B.** /→/ - /→/
- **C.** /↑/ - /↑/
- **D.** /↑/ - /↓/
- **E.** /↓/ - /↓/

**7.** I would have been terrified if I'd been in that situation.
- **A.** /→/ - /→/
- **B.** /→/ - /↓/
- **C.** /↑/ - /↓/
- **D.** /↓/ - /→/
- **E.** /↑/ - /↑/

**8.** I would have bought the dress if it hadn't been so expensive.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /↓/
- **D.** /↓/ - /↓/
- **E.** /↑/ - /↑/

**9.** I would have organized the part for you if I'd known you were coming.
- **A.** /→/ - /↓/
- **B.** /→/ - /→/
- **C.** /↑/ - /↑/
- **D.** /↑/ - /↓/
- **E.** /↓/ - /↓/

**10.** I definitely would have remembered if you'd told me.
- **A.** /↓/
- **B.** /↑/ - /↓/
- **C.** /→/ - /→/
- **D.** /↑/- /↓/
- **E.** /↑/ - /↓/

**11.** I wouldn't have felt so tired this morning if I'd gone to bed earlier.
- **A.** /→/ - /→/
- **B.** /↑/ - /↓/
- **C.** /→/ - /↓/
- **D.** /↓/ - /↓/
- **E.** /→/ - /↑/

**12.** The dog wouldn't have attacked if you hadn't teased him.
- **A.** /↓/
- **B.** /↑/ - /↓/
- **C.** /→/ - /↓//
- **D.** /↑/- /↓/
- **E.** /↑/ - /↓/

**TYPE 3 – CONDITIONAL SENTENCES**
**RECOGNITION OF PITCH PHONEMES**

**You will hear the following sentences. Identify the pitch phonemes in each sentence and mark the correct alternative.**

**1.** If I hadn't read the safety information, I wouldn't have acted so quickly.
- **A.** /2 3 2 / - /2 3 1/
- **B.** /2 2 1/ - /3 1 2/
- **C.** /2 3 1/ - /2 3 1/
- **D.** /2 3 3 / - /2 3 2/
- **E.** /2 2 3 / - /2 3 3/

**2.** If I'd known his number, I would have called him.
- **A.** /2 2 1 / - /3 1 2 /
- **B.** /2 3 2/ - /2 3 1/
- **C.** /2 3 3 / - /2 3 2/
- **D.** /2 3 1/ - /2 3 1/
- **E.** /2 2 3 / - /2 3 3/

**3.** If I'd known it was you on the phone, I would have answered it.
- **A.** /2 2 1/ - /3 1 2 /
- **B.** /2 3 1/ - /2 3 1/
- **C.** /2 3 2/ - /2 3 1/
- **D.** /2 3 3/ - /2 3 2/
- **E.** /2 2 3 / - /2 3 3/

**4.** If I'd left home earlier, I wouldn't have missed the train.
- **A.** /2 2 1/ - /3 1 2 /
- **B.** /2 3 1 / - /2 3 1 /
- **C.** /2 3 2/ - /2 3 1/
- **D.** /2 2 3/ - /2 3 2/
- **E.** /2 2 3 / - /2 3 3/

**5.** If I'd stayed in the building longer, I would have died.
- **A.** /2 3 2/ - /2 3 1/
- **B.** /2 2 1/ - /3 1 2 /
- **C.** /2 3 1 / - /2 3 1 /
- **D.** /2 2 3/ - /2 3 2/
- **E.** /2 2 3 / - /2 3 3/

**6.** If you'd asked me out to dinner, I'd have said yes.
- **A.** /2 2 1/ - /3 1 2 /
- **B.** /2 3 2/ - /2 3 1/
- **C.** /2 3 1 / - /2 3 1 /
- **D.** /2 2 3/ - /2 3 2/
- **E.** /2 2 3 / - /2 3 3/

**7.** I definitely would have remembered if you'd told me.
- **A.** /2 2 1/ - /3 1 2 /
- **B.** /2 3 1 / - /2 3 1 /
- **C.** /2 3 1/
- **D.** /2 2 3/ - /2 3 2/
- **E.** /2 2 3 / - /2 3 3/

**8.** I would have been terrified if I'd been in that situation.
- **A.** /2 3 2/ - /2 3 1/
- **B.** /2 2 1/ - /3 1 2 /
- **C.** /2 3 1 / - /2 3 1 /
- **D.** /2 2 3/ - /2 3 2/
- **E.** /2 2 3 / - /2 3 3/

**9.** I would have bought the dress if it hadn't been so expensive.
- **A.** /2 2 1/ - /3 1 2 /
- **B.** /2 3 1 / - /2 3 1 /
- **C.** /2 2 3/ - /2 3 2/
- **D.** /2 2 3 / - /2 3 3/
- **E.** /2 3 1/

**10.** I would have organized the party for you if I'd known you were coming.
- **A.** /2 3 2/ - /2 3 1/
- **B.** /2 2 1/ - /3 1 2 /
- **C.** /2 3 1 / - /2 3 1 /
- **D.** /2 2 3/ - /2 3 2/
- **E.** /2 2 3 / - /2 3 3/

**11.** I wouldn't have felt so tired this morning if I'd gone to bed earlier.
- **A.** /2 2 1/ - /3 1 2 /
- **B.** /2 3 2/ - /2 3 1/
- **C.** /2 3 1 / - /2 3 1 /
- **D.** /2 2 3/ - /2 3 2/
- **E.** /2 2 3 / - /2 3 3/

**12.** The dog wouldn't have attacked if you hadn't teased him.
- **A.** /2 2 1/ - /3 1 2 /
- **B.** /2 3 1 / - /2 3 1 /
- **C.** /2 2 3/ - /2 3 2/
- **D.** /2 3 1/
- **E.** /2 2 3 / - /2 3 3/

**TYPE 3 – CONDITIONAL SENTENCES**
**RECOGNITION OF PRIMARY STRESS**

**You will hear the following sentences. Identify the words with primary stress in each sentence and mark the correct alternative.**

**1.** If I hadn't read the safety information, I wouldn't have acted so quickly.
- **A.** safety – quickly
- **B.** hadn't – have
- **C.** read – acted
- **D.** If – so
- **E.** information– wouldn't

**2.** If I'd known his number, I would have called him.
- **A.** his – him
- **B.** known – called
- **C.** I'd – have
- **D.** number – called
- **E.** If – would

**3.** If I'd known it was you on the phone, I would have answered it.
- **A.** you – phone
- **B.** known – it
- **C.** you – answered
- **D.** it – would
- **E.** known – it

**4.** If I'd left home earlier, I wouldn't have missed the train.
- **A.** left – earlier
- **B.** home – missed
- **C.** I'd – the
- **D.** home – have
- **E.** earlier – train.

**5.** If I'd stayed in the building longer, I would have died.
- **A.** longer – died
- **B.** stayed – longer
- **C.** building – died
- **D.** I'd – would
- **E.** longer - I

**6.** If you'd asked me out to dinner, I'd have said yes.
- **A.** dinner – yes
- **B.** you'd – dinner
- **C.** me – have
- **D.** out – yes
- **E.** dinner – said

**7.** I definitely would have remembered if you'd told me.
- **A.** definitely – remembered
- **B.** would – me
- **C.** told
- **D.** remembered – told
- **E.** definitely – you'd

**8.** I would have been terrified if I'd been in that situation.
- **A.** I – that
- **B.** terrified – situation
- **C.** been – been
- **D.** terrified – I'd
- **E.** would – that

**9.** I would have bought the dress if it hadn't been so expensive.
- **A.** have – it
- **B.** would – so
- **C.** bought
- **D.** dress – been
- **E.** bought – expensive

**10.** I would have organized the party for you if I'd known you were coming.
- **A.** organized – known
- **B.** party – coming
- **C.** have – you
- **D.** I – if
- **E.** you – coming

**11.** I wouldn't have felt so tired this morning if I'd gone to bed earlier.
- **A.** tired – morning
- **B.** have – tired
- **C.** felt – earlier
- **D.** morning – gone
- **E.** tired –bed

**12.** The dog wouldn't have attacked if you hadn't teased him.
- **A.** wouldn't – attacked
- **B.** dog – teased
- **C.** attacked – him
- **D.** have – teased
- **E.** dog

## RECOGNITION OF JUNCTURE PHONEMES IN *IF-CLAUSES*

**You will listen to the following sentences. Write down the juncture phonemes of the first or second half of the sentences in the gaps provided next to each clause.**

| SENTENCES | JUNCTURE PHONEMES |
|---|---|
| **1.** If my kids go to a friend's house, … | |
| **2.** If Julie doesn't get her act together, … | |
| **3.** Kim will be disappointed … | |
| **4.** We won't get anything done … | |
| **5.** If I told them my real feelings, … | |
| **6.** If she slept earlier, … | |
| **7.** I wouldn't fly with that airline … | |
| **8.** Investigators would be remiss … | |
| **9.** If I'd known it was you on the phone, … | |
| **10.** If you'd asked me out to dinner, … | |
| **11.** I would have organized the party for you … | |
| **12.** The dog wouldn't have attacked … | |
| **13.** …, it will be an admission of guilt. | |
| **14.** …, I'll be exhausted after a year. | |
| **15.** ... if they lack interest in the subject. | |
| **16.** … if I don't get home soon. | |
| **17.** …, life would be so much easier. | |
| **18.** …, I'd never forgive myself. | |
| **19.** …, if my husband weren't afraid of flying. | |
| **20.** …, if you offered to help. | |
| **21.** …, I wouldn't have acted so quickly. | |
| **22.** …, I would have answered it. | |
| **23.** … if I'd known you were coming. | |
| **24.** … if you'd told me. | |

## RECOGNITION OF PITCH PHONEMES IN *IF-CLAUSES*

**You will listen to the following sentences. Write down the pitch patterns of the first or second half of the sentences in the gaps provided next to each clause.**

| SENTENCES | PITCH PHONEMES |
|---|---|
| **25.** If my kids go to a friend's house, … | |
| **26.** If Julie doesn't get her act together, … | |
| **27.** Kim will be disappointed … | |
| **28.** We won't get anything done … | |
| **29.** If I told them my real feelings, … | |
| **30.** If she slept earlier, … | |
| **31.** I wouldn't fly with that airline … | |
| **32.** Investigators would be remiss … | |
| **33.** If I'd known it was you on the phone, … | |
| **34.** If you'd asked me out to dinner, … | |
| **35.** I would have organized the party for you … | |
| **36.** The dog wouldn't have attacked… | |
| **37.** …, it will be an admission of guilt. | |
| **38.** …, I'll be exhausted after a year. | |
| **39.** ... if they lack interest in the subject. | |
| **40.** … if I don't get home soon. | |
| **41.** …, life would be so much easier. | |
| **42.** …, I'd never forgive myself. | |
| **43.** …, if my husband weren't afraid of flying. | |
| **44.** …, if you offered to help. | |
| **45.** …, I wouldn't have acted so quickly. | |
| **46.** …, I would have answered it. | |
| **47.** … if I'd known you were coming. | |
| **48.** … if you'd told me. | |

## APPENDIX 5. CONSENT FORM

## Gönüllü Katılım Formu

Bu çalışma, Prof. Dr. Mehmet Demirezen ve İbrahim Halil Topal tarafından "İngilizce Bölümünde Okuyan Türk Öğrencilerde Şart Cümlelerindeki Tonlama Örüntülerinin Analizi" başlıklı yüksek lisans tezinin bir parçası olarak Hacettepe Üniversitesi İngiliz Dili ve Eğitimi Anabilim Dalı'nda yürütülmektedir. Bu çalışmanın amacı, İngilizce öğretmen adaylarının İngilizce şart cümlelerindeki tonlama örüntüleri konusundaki yeterliliklerini ortaya çıkarmak ve ihtiyaç halinde de bu konuyla ilgili çeşitli alıştırmaları içeren İşitsel Sesletim Modeli 'ne dayanarak verilen düzeltici öğretim dersleri aracılığıyla konuşmalarındaki tonlama hatalarını düzeltmektir. Çalışmanın bir başka amacı da, İngilizce öğretmen adaylarını İngilizcedeki tonlama örüntüleri konusunda daha yetkin ve bilinçli kılmaktır.

İngilizcede tonlama çeşitli amaçlar için kullanılmaktadır ve yanlış tonlama örüntülerinin kullanımı iletişimde anlaşmazlıklara yol açmaktadır. Parçalar üstü bir özellik olan tonlama, başlıca cümle vurgusu, ses yüksekliği ve duraksamadan oluşmaktadır. Bu üç unsurda yetkin olmak anadile yakın bir aksan edinimini sağlamakta, herhangi birinin eksikliği ise anlamda değişikliğe ya da iletişimde kopukluğa yol açmaktadır. Dolayısıyla hem etkili bir iletişimi sağlamak hem de ileride meslek olarak yürütecekleri bir dilin öğretiminde önemli bir yeri olan tonlama örüntülerinin İngilizce öğretmen adayları tarafından edinimi büyük önem arz etmektedir. Bu çalışmanın amacına ulaşmak için ön-test son-test deneysel yöntem kullanılacaktır. Ön test için daha önceden seçilen bir dizi cümlelerin sizler tarafından rahat ve ses yalıtımlı bir ortamda seslendirilmesi ve bu verilerin kaydedilmesi istenecektir. Bu cümle seslendirmeleriniz tamamıyla gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir; elde edilecek bilgiler bilimsel yayımlarda kullanılacaktır.

Katılım sırasında herhangi bir nedenden ötürü kendinizi rahatsız hissederseniz uygulamayı yarıda bırakmada serbestsiniz. Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz. Çalışma hakkında daha fazla bilgi almak için, araştırmacılardan biri olan İngiliz Dili Eğitimi Bölümü öğretim üyelerinden Prof. Dr. Mehmet DEMİREZEN (E-posta: md47@hacettepe.edu.tr) ya da diğer araştırmacı yüksek lisans öğrencisi İbrahim Halil TOPAL (E-posta: ibrahimhtopal@gmail.com) ile iletişim kurabilirsiniz. İlgili çalışma için Hacettepe Üniversitesi Etik Komisyonu'ndan gerekli izin alınmıştır.

***Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda bırakabileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum***. (Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

**Katılımcı**

**Adı-Soyadı :** ……

**Tarih :** ……../……/……..

**İmza :** ……

**APPENDIX 6. PARTICIPANT EVALUATION FORM I**

| PARTICIPANT EVALUATION FORM | | | | |
|---|---|---|---|---|
| **Name – Surname:** | | | | |
| **PRETEST** | | **SENTENCES** | **POSTTEST** | |
| **CORRECT** | **INCORRECT** | **SECTION I: PRIMARY STRESS** | **CORRECT** | **INCORRECT** |
| | | **1.** If I start teaching again, I'll be exhausted after a year. | | |
| | | **2.** If you break the rules, you will be punished accordingly. | | |
| | | **3.** My wife will kill me if I don't get home soon. | | |
| | | **4.** It's hard to teach students if they lack interest in the subject. | | |
| | | **5.** If anything happened to the kids, I'd never forgive myself. | | |
| | | **6.** If I told them my real feelings, they would just laugh at me. | | |
| | | **7.** Investigators would be remiss if they didn't pursue every possible lead. | | |
| | | **8.** It would mean a lot to your father if you offered to help. | | |
| | | **9.** If I hadn't read the safety information, I wouldn't have acted so quickly. | | |
| | | **10.** If I'd known it was you on the phone, I would have answered it. | | |
| | | **11.** I would have organized the party for you if I'd known you were coming. | | |
| | | **12.** I would have bought the dress if it hadn't been so expensive. | | |

**PARTICIPANT EVALUATION FORM II**

| PARTICIPANT EVALUATION FORM | | | | |
|---|---|---|---|---|
| **Name – Surname:** | | | | |
| **PRETEST** | | **SENTENCES** | **POSTTEST** | |
| **CORRECT** | **INCORRECT** | **SECTION II: PITCH PATTERN** | **CORRECT** | **INCORRECT** |
| | | **13.** If he resigns, it will be an admission of guilt. | | |
| | | **14.** If Julie doesn't get her act together, she'll never graduate. | | |
| | | **15.** You'll be missing the boat if you don't buy these shares now. | | |
| | | **16.** We won't get anything done if you two don't stop carrying on. | | |
| | | **17.** If my car had one, life would be so much easier. | | |
| | | **18.** If they needed a computer, they'd buy one. | | |
| | | **19.** I'd travel more if my husband weren't afraid of flying. | | |
| | | **20.** I'd get one tomorrow if I had enough money. | | |
| | | **21.** If I'd known his number, I would have called him. | | |
| | | **22.** If you'd asked me out to dinner, I'd have said yes. | | |
| | | **23.** I wouldn't have felt so tired this morning if I'd gone to bed earlier. | | |
| | | **24.** I definitely would have remembered if you'd told me. | | |

**PARTICIPANT EVALUATION FORM III**

| PARTICIPANT EVALUATION FORM | | | | |
|---|---|---|---|---|
| **Name – Surname:** | | | | |
| **PRETEST** | | **SENTENCES** | **POSTTEST** | |
| **CORRECT** | **INCORRECT** | **SECTION III: JUNCTURE PHONEME** | **CORRECT** | **INCORRECT** |
| | | **25.** If my kids go to a friend's house, they'll call me. | | |
| | | **26.** If the crops fail again, it will be a calamity for the country. | | |
| | | **27.** You'll enjoy it if you read it. | | |
| | | **28.** Kim will be disappointed if she figures it out. | | |
| | | **29.** If she slept earlier, she wouldn't be so tired. | | |
| | | **30.** If they were at the park at that time, they wouldn't know what to do. | | |
| | | **31.** It'd be easier if we both did it. | | |
| | | **32.** I wouldn't fly with that airline if I were you. | | |
| | | **33.** If I'd stayed in the building longer, I would have died. | | |
| | | **34.** If I'd left home earlier, I wouldn't have missed the train. | | |
| | | **35.** I would have been terrified if I'd been in that situation. | | |
| | | **36.** The dog wouldn't have attacked if you hadn't teased him. | | |

## APPENDIX 7. THESIS ORIGINALITY REPORT

HACETTEPE UNIVERSITY
**GRADUATE SCHOOL OF EDUCATIONAL SCIENCES**
**THESIS/DISSERTATION ORIGINALITY REPORT**

**HACETTEPE UNIVERSITY**
**GRADUATE SCHOOL OF EDUCATIONAL SCIENCES**
**TO THE DEPARTMENT OF** FOREIGN LANGUAGE EDUCATION

Date: 07/03/2017

Thesis Title : An Analysis of the Intonation Patterns of If-Clauses in Turkish English Majors

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I respectfully submit this for approval.

07.03.2017
Date and Signature

**Name Surname:** İbrahim Halil TOPAL
**Student No:** N12222645
**Department:** Foreign Language Education
**Program:** English Language Education
**Status:** ☒ Masters ☐ Ph.D. ☐ Integrated Ph.D.

**ADVISOR APPROVAL**

APPROVED.

(Title, Name Surname, Signature)
Prof. Dr. Mehmet DEMİREZEN

## CURRICULUM VITAE

### Personal Information

| | |
|---|---|
| ***Surname –Name*** | Topal, İbrahim Halil |
| ***Place of Birth*** | Mersin |
| ***Date of Birth*** | 05.10.1989 |

### Educational Background

| | | |
|---|---|---|
| ***High School*** | Salim Yılmaz High School (F.L.I.H.S.) - Mersin | 2004 - 2007 |
| ***Undergraduate*** | Çukurova University, Faculty of Education, Department of English Language Teaching<br>Pedagogical University of Cracow, Institute of Modern Languages | 2007 - 2011 |
| ***Master of Arts*** | Hacettepe University, Institute of Educational Sciences, Department of Foreign Language Education, Division of English Language Education | 2013 - 2016 |
| ***Foreign Languages*** | English: C1 Spanish: B1<br>German: A2 Polish: A2 | |

### Work Experience

| | | |
|---|---|---|
| ***Internship*** | Gimnazjum 19 Liceum XVIII, Krakow, Poland (Intern)<br>Fayetteville High School, AR, USA (Intern)<br>University of Arkansas, AR, USA (Trainee) | 2010 – 2011<br>2010<br>2010 |
| ***Organization*** | Deniz Lisesi Komutanlığı, Asteğmen Öğretmen<br>Gazi University, School of Foreign Languages | 2013 – 2014<br>2012-present |

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| ***Date of Jury*** | 16.02.2017 |